

RURAL LABOUR ARRANGEMENTS IN WEST BENGAL, INDIA

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ABSTRACT

The aim of this thesis is to explain the existence and coexistence of diverse hired labour arrangements in two contrasting localities in rural West Bengal (India). Hired labour arrangements for seasonal migrants are included in the analysis, the methods for which are drawn from a review of the contractual arrangements literature.

One study locality, in Bardhaman District, was characterised by double-cropping of paddy facilitated by groundwater irrigation, the other, in Purulia District, by rainfed paddy cultivation. The structure of landownership was skewed - more so in the Bardhaman locality. Daily employment records were kept by ninety-two sampled households over two seasons. In each locality six different indigenous types of hired labour arrangement were identified. Analysis of the rationales for the existence and coexistence of these labour arrangements and of the variation within each type confirmed the embeddedness of the terms and conditions of labour hire (including those for migrant labour) in the land-holding structure, in ideologies of gender and caste, and in party political allegiances. Possibilities for and constraints on hiring out labour in particular arrangements are explained in part by the logic of deployment of household labour to unwaged reproductive and productive work, which is also socially embedded in the same way.

The thesis thus sets a new agenda for research. It questions the received wisdom on rural labour exchange in India: i) that villages tend to have just one wage rate for 'casual' labour determined by supply and demand alone, ii) that stylised labour arrangements (eg 'casual' and 'attached') are appropriate occupational classifications for individuals and households, and iii) that rural labour is immobile. If the coexistence of diverse labour arrangements is to be explained, more, careful microstudies are required, so that a typology of socio-economic, political and agro-ecological contexts can be developed.

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GLOSSARY

adivasi	aboriginal people or 'tribals; the official term is Scheduled Tribes
Adivasi para	labourer para in Bardhaman locality
Ager para	employer para in the Purulia locality
Agrahayan	Bengali month (November-December)
Akashpur	village near Purulia locality
al	border of paddy field
aman	late monsoonal paddy (July/August - December)
anti	bundle
Arjhurapur	village in the Bardhaman locality
asar khoroch	travelling expenses for journey from source to destination locality in seasonal migration
Ashar	Bengali month (June-July)
ason	woven mat for sitting
Aswin	Bengali month (September-October)
aus	early monsoonal paddy (June/July-October)
backward caste	government classification grouping Hindus other than the highest castes (Brahmin, Kayastha etc) but distinct from Scheduled Caste, which refers to the former 'untouchable' castes
badal hal	within jati exchange labour in the Purulia locality
Badamjal	river in the Bardhaman locality
bagal	an annual labour arrangement in the Purulia locality; associated with livestock work
bagali year	duration of a bagal arrangement (approximately ten months between mid-February and late April)
Bagdi	a scheduled caste in the Bardhaman locality
bahal	fertile low land in the Purulia locality
baid	bunded high land in the Purulia locality
Baisakh	Bengali month (April-May)
Baisnab	a backward caste in the Bardhaman locality
bandha	seasonal labour arrangement in the Bardhaman locality
Bangal para	part of Adivasi para in Bardhaman locality, inhabited by recent settlers from Bangladesh
Bardhaman	a district in West Bengal state; site of one of the study localities
baperbari	father's house
Baschala	village near Bardhaman locality
berhun	a type of loan to be repaid by labour with implicit interest (Purulia locality)
bet hal	exchange labour across jati
Bhadra	Bengali month (August-September)
bhat	boiled rice
bhatua	an annual labour arrangement in the Purulia locality
Bhuinya	a scheduled caste in the Purulia locality
Bhuinyadi	para in the Purulia locality, inhabited only by Bhuinya households
Bhumij	a scheduled tribe in the Purulia locality

bigha	unit of land area equivalent to 0.33 acres or 0.13 hectares
boro	summer paddy (February-May)
Brahmin	a high caste in the Purulia locality
chadar	winter wrap
chaku bandha	to tie the knife around a cockrel's leg for a cockfight
chana	fresh cheese used as a base for sweets
chira	flattened rice
chotano	weeding with a hoe
chulha	hearth
chuto	daily wage labour arrangement in Bardhaman locality
CPI(M)	Communist Party of India (Marxist); leading partner of the Left Front coalition in power in West Bengal state
dadon	credit-labour tying arrangement
dal	lentils
danga	unbunded high land in the Purulia locality
des	country or area
Dhanpur	village in the Bardhaman locality
dhenki	foot operated plank for husking paddy, grinding and flattening rice
Ghosh para	a para in the Bardhaman locality
ghusti	descent line
Goala	a backward caste in both Bardhaman and Purulia localities
gobar	dung
gonda	a measure of paddy seedlings equivalent to 4 anti
Gram Panchayat	the lowest tier of local government
guti	dung cakes
hajira	a daily time rated labour arrangement in the Purulia locality
hat	periodic market
Hatpur	large village near Bardhaman locality
Hindu para	a para in the Bardhaman locality
jati	refers here to social rank combining caste, religion and ethnicity
Jawahar Rozghar Yojana	central government employment scheme based on public works
jomi	land
jotedar	very large landowner
kachu	root vegetable
Kadapur	village in the Bardhaman locality
kal munish	seasonal labour arrangement in the Purulia locality
kanali	medium land in the Purulia locality
kantha	embroidered quilt
kara	buffalo bullocks
Kartik	Bengali month (October-November)
kedokan	labour arrangement in rural Java involving transplanting, weeding and harvesting work tied to a share of the crop
Kisan Sabha	CPI(M)-allied peasant union (all-India term)
Kodallota	labourer para in the Purulia locality
Krisak Sabha	CPI(M)-allied peasant union (Bengali term)
lok	used by Davis (1983) to refer to an individual's life cycle stage; lit. person or people
mach	fish

Magh	Bengali month (January-February)
Mahaltar	a para in the Purulia locality
Mandal para	a para in the Purulia locality
mela	country fair
morai	paddy storage structure made from straw
	rope used in Bardhaman locality
mouza	village revenue area
munish	an annual labour arrangement in the
	Purulia locality
murag lorai	cock fight
muri	puffed rice
Muslim para	a para in the Bardhaman locality
nagare	an annual labour arrangement in the
	Bardhaman locality
Namasudra	a scheduled caste in the Bardhaman
	locality
Namo para	a labourers para in the Purulia locality
nirano	weeding by hand
palui	stack of straw or unthreshed paddy
panchayati raj	system of elected local government
panther bhat	rice water
para	a group of dwellings usually below the
	level of the village with common spatial
	and or social characteristics
Phalgun	Bengali month (February-March)
Pholdanga	Gram Panchayat in Purulia locality
phul	literally flower; used to express close
	friendships across caste in the Purulia
	locality
phuron	a piece rate gang labour arrangement in
	the Bardhaman locality
Pichan para	a labourers para in the Purulia locality
pita	festive sweetmeat made from rice flour
pon	measure used both for paddy seedlings and
	harvested paddy equivalent to 80 anti in
	the Purulia locality
Pous	Bengali month (December-January)
Pous purab	festival at the end of the month of Pous
pousani	share-rearing
pradhan	elected leader of the Gram Panchayat
puja	religious ceremony
pukur	tank, reservoir
Pukurgram	village in the Purulia locality
purab	festival
purba para	a para in the Bardhaman locality
Purulia	a district in West Bengal state; site of
	one of the study localities
rabi crop	winter crop (December-March)
rakhal	an annual labour arrangement in the
	Bardhaman locality; associated with
	livestock work
Rs	Rupee; unit of currency
Sadgop	a backward caste powerful in Bardhaman
	district but not present within the study
	locality
Sanskritisation	group efforts to raise jati ranking within
	Hindu caste hierarchy
Santal	a scheduled tribe in both Bardhaman and
	Purulia localities
Santali	language spoken by Santals
Santipur	village near Purulia locality
Santra para	mainly labourer para in Bardhaman locality

sardar	labour gang leader
Scheduled Caste	official term for former 'untouchables'
Scheduled Tribe	official term for those identified as 'tribal' (or <i>adivasi</i>)
ser	a volume measure in the Purulia locality, equivalent to the volume of approximately one kilogramme of hulled rice
Sonajal	river in the Purulia locality
Sraban	a Bengali month
talai	palm leaf mat
Tamuli	a caste in the Purulia locality
thana	police station; also used to refer to area covered by a police station, usually equivalent to a development block
thika	a daily piece rate individual labour arrangement in the Purulia locality
thika + hajira	labour arrangement in the Purulia locality combining piece rate and time rate
torkari	vegetable or other accompaniment

PREFACE

Much of rural West Bengal is characterised by smallholder rice cultivation on fragmented plots of land. However, although the State is endowed with high rainfall and fertile soil, growth in the output of rice during the first two decades of the Green Revolution was laggardly (Boyce, 1987). Increases in food production kept up neither with the rest of India nor with population growth in West Bengal. In his important study of agrarian Bengal between 1947 and 1980, Boyce lay the blame for this 'impasse' at the door of an inequitable and inefficient agrarian structure. Water control was seen as the key constraint and the self-interest and concomitant lack of cooperation among the 'haves' of rural West Bengal was a major obstacle to success in publicly-funded irrigation schemes. Another was the likelihood of sabotage by the 'have-nots'.

Two major changes occurred in subsequent years. First, in 1977, the Communist Party of India (Marxist) (CPI(M)) won a majority of seats in the State legislature. Re-elected three times since, the CPI(M) continues to lead the social democratic coalition Left Front Government (LFG). The LFG implemented far-reaching reforms of local government, instituting regular elections on party political tickets (Mukarji and Bandyopadhyay, 1993). It also developed a high profile set of agrarian reform policies aimed at redistributing land held above the legal ceiling and registering share-croppers so as to enable them to gain access to the statutory share of 75 per cent of the harvest.

Secondly, in the 1980s and early 1990s, agricultural output began to grow much more rapidly - average annual growth of foodgrains output was reported to be 6.5 per cent - , outpacing both population growth and growth in foodgrains production in other Indian states (Economic and Political Weekly, 1993). This has been attributed to rapid increases in the gross cropped area of rice, due to individual investments in shallow tubewells and the second crop of summer or 'boro' rice, which could now be cultivated. It is also a result of the adoption of high yielding varieties of both 'boro' and monsoonal 'aman' rice.

So far no study has been able to link the reforms of the Left Front Government, changing agrarian structure, and the recent agricultural 'success' story. Nor is it yet clear how agricultural growth has impacted on land-poor and landless agricultural workers.

These questions are still subjects of lively debate among scholars and 'policy-makers'. Macro-level data on employment and wages offer no clear answer because they fail to engage with the complexity of contractual arrangements at the micro-level. By contributing to explanations for the existence and coexistence of diverse hired labour arrangements in two agroecologically contrasting localities of West Bengal, this thesis enhances our ability to understand the practical process of labour exchange. Institutional arrangements for hired labour are important components of agrarian structure. In combination with other micro studies, the findings of this thesis can be used to begin to identify the types of contractual arrangements for hired labour that actually exist

(rather than purely abstract notions of contract), and to measure their changing incidence in a variety of agroecological and socioeconomic contexts. Our understanding of the relationships between part of the agrarian structure, agricultural growth and government policy can thus be enhanced by a surer empirical foundation.

Two common and related assumptions pervade the literature on changes in contractual arrangements in south Asian agriculture. The intensification of agricultural production and its associated commercialisation are often assumed to entail growth in the proportion of 'casual' labour contracts (Rudra, 1987, p757; Ramachandran, 1990, p1). Secondly, recent formal economic models of agrarian labour-hiring institutions begin with the assumption that in south Asia 'casual' labour is predominant and the hiring process is close to a spot market (eg Osmani, 1990). This thesis seriously challenges the formulation of the two assumptions by demonstrating the systematic distinction between different types of apparently 'casual' labour arrangements, drawing attention in particular to the high incidence of seasonal labour-tying in an area of commercialised agriculture. The wide variety of labour-hiring arrangements correspond neither to standard notions of 'casual' nor of 'attached' labour. Workers, differentiated by wealth (including size of their own landholdings), gender, religion and caste, 'choose' to hire out in different types of activity at particular times of year. Moreover, even within a single village, remuneration for a day's work in a particular labour arrangement varies according to form of payment (cash, kind, combination of both), payment regime (piece rate, time rate) and timing of payment.

The opening chapter of the thesis reviews economics literature concerned with explanations for the existence and coexistence of diverse types of hired labour arrangement. These theories are, necessarily, detached from the people who hire out and hire in manual labour. Our main concern, however, is to analyse differences *between people* in their 'choice' of labour arrangement. The methodology, which is actor-oriented, is set out in the second chapter.

The third and fourth chapters describe and analyse in detail the types of labour arrangement existing in the two small rural localities in West Bengal, where I resided between June 1991 and March 1992. Indigenous terms for labour arrangements are used in order to enable us to conceive of labour arrangements as far as possible as they are perceived locally. In the fifth chapter, the labour arrangements entered by seasonal migrants (between the areas of which the two localities are parts) are analysed. The sixth chapter goes on to show the extent to which the type of labour arrangement entered is related to the rationale behind the overall deployment of labour in households of varying composition, wealth and social rank. Finally, in the seventh chapter the main findings of the study are summarised and a new research agenda is mapped out for the analysis of *changes* in contractual arrangements.

This thesis is about labourers - those who sell labour -, about employers - those who hire in labour -, and about the contractual arrangements between them. The two groups are not mutually exclusive. Moreover, in rural West Bengal, both

categories include men and women, a wide range of wealth (including area of land controlled), and households of different sizes, composition and social rank. It is thus impossible to describe a typical labourer or employer. Nevertheless, because in much of the abstract theoretical critique which follows the reader may lose sight of the people involved in labour arrangements, it is appropriate at this point to introduce a few 'real life' images.

It is the rice harvest. Much of the crop has been cut and is lying in the threshing yard. Kartik has been watching the bullock cart drivers bring in the crop and is joining in the construction of huge stacks of straw still burdened with grain. Last week he travelled by bus to the place where migrant workers from the west gather in the second half of November. It had taken Kartik most of the day bargaining with the gang leaders before he found a group of Muslim migrants - men and women - willing to work for fifteen rupees, one and half kilogrammes of rice, some vegetables and a roof over their heads each day.

Now, while the migrants cut the grain in the fields, Ahaladi, a Santal woman, who herself had first come to the area as a migrant fifteen years before and had settled with half an acre of land, continued to push the straw through the foot-controlled threshing machine. Kartik had come to her house the night before and called her for work today. She knew that she would only receive two kilogrammes of rice because the cash part of her wage would go towards paying off the advance she had taken in September. Workdays meant rising at 4am to prepare rice for her husband, Brindaban, and two children. Her daughter helped her gather together some dung cakes for the hearth and promised to look after the goats while Ahaladi was gone. Brindaban had to leave for work first. He would be able to earn thirty-five rupees in a day harvesting paddy at a piece rate.....

The first chapter of this thesis, which follows, critically examines theories designed to explain stylised rural labour arrangements. The theories are intended to improve our understanding of, for example, how Kartik's supervision requirements may be related to the type of labour contract he offers individual workers and why the way Ahaladi and Brindaban construct their livelihoods causes one to work in a piece rate and the other in a seasonally-tied labour-hiring arrangement.

CHAPTER ONE: INTRODUCTION - EXPLAINING DIVERSITY IN HIRED LABOUR ARRANGEMENTS IN INDIAN AGRICULTURE

1.1 THE ISSUE AND OBJECTIVES OF THE STUDY

Understanding the relation between agrarian structure and the course of agricultural development has long been a concern of scholars of rural South Asia¹. The subject of this thesis is a major component of agrarian structure: the relation between buyers and sellers of agricultural labour, in particular its many contractual forms.

The purpose of the study is to explain the existence and coexistence of institutions of labour exchange in two localities of West Bengal state, India. Data has been collected on the terms and conditions and types of labour arrangements from 92 households in two quite separate localities. The link between the two is provided by the movement of agricultural labourers between the wider areas of which each locality is to some extent representative. The agrarian structure in both areas is characterised by smallholdings (of less than two hectares) and the employment of wage labour. In one of the areas, where irrigated multiple cropping prevails, large numbers of workers are employed to carry out agricultural operations at certain times of year.

¹Daniel Thorner defined agrarian structure as "the network of relations among the various groups of persons who draw a livelihood from the soil...it is the sum total of ways in which each group operates in relation to other groups" (quoted by J. Harriss, 1982, p146, n1).

The other, characterised by unirrigated single cropping, offers relatively few earning possibilities to those who rely wholly or partly on the sale of labour power.

This study is confined to explanations of diversity in the institutional arrangements for *hired wage labour*, as distinct from share-cropping, other forms of tenancy and cultivation solely by members of the land-owning household². Labour arrangements are distinguished from "labour contracts" by the inclusion of informal and implicit as well as written work agreements.

The empirical literature reveals an enormous degree of diversity in hired labour arrangements for all regions of India³. As the Thorner's pointed out it "is scarcely possible...to sort out all the kinds of agricultural labour relationships to be found in Indian agriculture into a small number of separate groupings". There are hundreds of indigenous terms, for each of which "the terms of employment,

²The line between wage labour and tenancy is not always distinct. For example, the *krisan* workers of Birbhum district, West Bengal, are distinguished from share-croppers because they work land "under the directions of the employer", using the employer's means of production. Yet they also differ from hired labourers because they receive a share of the crop (Rudra, 1982, p12). In rural Java, *kedokan* workers receive a share of the harvest contingent on carrying out transplanting and weeding work earlier in the growing season (Hart, 1986b, pp686-7; Kikuchi et al, 1984). Hayami and Otsuka argue that to build a general theory of contractual choice in agriculture, land and labour contracts must be analysed together (1993, p2). However, building a general theory is not the purpose of this dissertation.

³See, for all India, Thorner and Thorner, 1962; for eastern India, J. Harriss, 1983; Rudra and Bardhan, 1983; Rudra, 1987; Sarap, 1991; for western India, Binswanger et al, 1984; Breman, 1985; Kothari, 1991; for north India, Srivastava, 1989; and for south India, Kapadia, 1990; Ramachandran, 1990.

duration of the work, amount and form of payment may vary from district to district and village to village" (1962, pp21-23). Some examples of labels scholars have applied to groups of hired labour arrangements serve to illustrate the point:

casual, daily time rated

casual, piece rated

contract, piece rated

semi-attached, fixed short duration

semi-attached, undefined short duration

semi-attached, beck and call

annual livestock herding

annual farm servant

etc

The archetypal hired labour arrangements listed here are not all defined by the same criteria. Some specify the duration, others the degree of obligation between employer and labourer, and still others the operation to be performed. Most use a combination of two or more of these. A still greater degree of complexity can be introduced with the notion of interlinked labour contracts, where the quantity of labour hired in and/or its remuneration are codetermined with the terms and conditions of other transactions, such as those in land or credit.

Furthermore, within each arrangement, terms and conditions usually vary, even within villages. Some labour arrangements

display more internal variation than others, but most vary along one or more of the following axes:

effective wages

form of payment (cash, kind, etc)

time of payment (advance, same day, arrears, etc)

payment regime (piece rate, time rate, etc)

type of operation

degree of obligation

duration

work organisation (gang, individual, etc)

Yet general competitive equilibrium (GCE) theory omits "the widespread existence of contracts which depart from the price system" (Arrow, 1994). In GCE, the price of labour, like those of other factors of production, is determined by the quantities of labour demanded and supplied and tends towards an equilibrium where these quantities are equated. The actual working of markets is largely ignored. Recently, however, economists interested in the working of rural factor markets in Asian agriculture have called for the explanation of institutional diversity (eg Binswanger and Rosenzweig, 1984, p3; Rosenzweig, 1988, p736; Stiglitz, 1989, p20-21; Osmani, 1990, p18). This includes the explanation of particular contractual arrangements in the context of a complex exchange environment. It is a project which sits firmly within the broad agenda of the economics discipline as spelt out by Bartlett (1989):

"one of the central functions of economic theory is to give explanatory and predictive order to the seeming chaos of human behaviour. Why specifically do different people do what they do? Why do different people do such different things? Why does the same person do different things at different times? How are all of these individual choices⁴ reconciled in social contexts?" (p18).

"It is relevant to economic inquiry, then, to ask about the character of those relationships surrounding the social institutions known as markets", (p193).

We can now define the objectives of this study more precisely as:

- a) to explain the existence and coexistence of a number of distinct hired labour arrangements; and
- b) to explain the variation of selected attributes within each arrangement.

The first task is to review relevant economic models and ask whether and how they can be useful to our inquiry. I will not be seeking to falsify in the Popperian sense. Rather than simply rejecting or not rejecting theories, I will interrogate them as part of the inductive research process to establish the extent to which they offer useful insights for the

⁴note that Bartlett does not necessarily believe in voluntarism though he uses the word choices.

explanation of the existence and/or coexistence of the arrangements under study. Occasionally, where the data allow, this will involve the use of statistical tests, mostly non-parametric. In the majority of cases, however, "testing" will involve presentation of empirical evidence and assessment of whether it adds to or detracts from a particular hypothesis⁵.

The definition of a hired labour arrangement used here is the totality of formal, informal and implicit terms and conditions which define the relationship between a labourer (or group of labourers) and an employer (or group of employers). Formal (written) and informal (spoken) terms and conditions are those which are explicitly agreed, while implicit ones are those which are understood by both parties, without being stated. They may arise from the nature of other relationships between the same individuals or groups, or from norms associated with a certain arrangement. These definitions do not imply that terms and conditions are necessarily understood in the same way by all who practise them.

Clearly making the array of contracts discrete is artificial, given the nature of many employer-employee relations, which are personal, operate in a number of transaction spaces (land and credit as well as labour) and do not follow strict rules corresponding to analysts' categories of arrangement.

⁵This is not to make a claim for a pure empiricist methodology where theory is evaluated against "the facts". Any presentation of data is bound to be partially subjective, both in terms of which data are chosen and how they are used in argument. Like Hodgson, however, I hold that this does not mean that all knowledge is subjective, but rather that its expression through language inevitably embodies theory (1988, p35-6).

However, the creation of some kind of typology is necessary for an analysis of differences and, at the village level, arrangements cluster clearly into indigenous types - more refined and accurate than say "casual" and "attached" or "daily" and "permanent" etc⁶.

With very few exceptions (eg Newbery, 1989, pp282-3), the theoretical literature deals with just two types: casual/daily and permanent/attached. Sections 1.2 and 1.3 review theoretical explanations for the existence and coexistence of diverse labour arrangements in the traditions of neo-classical economics (in the form of 'new institutionalism') and Marxian political economy. In section 1.4, Gillian Hart's framework for the analysis of diverse rural labour arrangements is also reviewed. In section 1.5, it is concluded that none of the economic theories reviewed are able to explain the contractual diversity. Anthropological studies are cited to illustrate the embeddedness of labour arrangements, not only in the landholding structure as Hart argued, but also in locally specific and shifting ideologies of gender and caste, and in spatial identities. The final section sets out the structure of the thesis, including the hypotheses to be examined arising out of this literature review.

⁶Dreze and Mukherjee note this for share-cropping arrangements. The indigenous terms reflect the crop and input shares etc (1987, p3).

1.2 'NEW INSTITUTIONAL ECONOMICS' EXPLANATIONS FOR THE EXISTENCE OF LABOUR-TYING IN AGRICULTURE (AND ITS COEXISTENCE WITH "CASUAL" LABOUR ARRANGEMENTS)

Lal has described the goal of neo-classical economists (as opposed to *old* institutionalists⁷) as showing how institutions could be explained as second best, but still utility maximising and cost minimising, responses to departures from the conditions of perfect information and no uncertainty assumed in perfect competition theory (1989, p111). We now review, in turn, five neo-classical models⁸ explaining the existence of a stylised institution - tied or permanent labour contracts - and its coexistence with "casual" labour arrangements. Each model is critically assessed for its tractability (whether the concepts and assumptions are clear and the steps logical) and its empirical relevance (where the model has been stood up against convincing empirical tests). Dreze and Mukherjee's inductive attempt to identify core features of casual labour arrangements is also summarised. At the end of the section I discuss the general limitations of

⁷Hodgson uses the exogeneity of the individual as a criterion to distinguish 'new' from 'old' institutional economics. New institutional economics' models are characterised as assuming that "individuals and their preferences must be taken as given" (1992, p127). Old institutionalists see "individuals as situated in and moulded by an evolving social culture, so that their preference functions are not given and fixed but in a process of continual adaptation and change" (1993, p39). Granovetter, on the other hand, distinguishes new institutional economics from the old by its "reliance on arguments for the economic efficiency of observed institutions" (1991, p76).

⁸The models are summarized in words, rather than in the form of equations. The use of algebraic language in the review would be inconsistent with the style of the remainder of the thesis.

the work reviewed and suggest that in spite of these, important analytical issues are raised concerning, among other things, the essential economic logic of hired labour arrangements.

The models reviewed in this section draw on developments in transaction costs, information and insurance economics, in particular the notions of *missing markets for risk* and *incomplete* and/or *imperfect markets for information*. Unlike general competitive equilibrium theory, which assumed away risk, new institutional economics confronts it by building the absence of insurance markets into explanations for the existence of particular institutions. In an incomplete market for information, gaps in information are experienced by all parties to a transaction, for example *uncertainty* over the level of future wages or employment. Imperfect information, on the other hand, refers to the asymmetric distribution of information, when one or more parties to a transaction possess information that other parties do not (Phlips, 1988). A common example in labour economics is information regarding worker effort. For an employer, access to this information often requires *supervision* or *monitoring costs*. Alternatively, where monitoring costs are high, *incentives* can be provided to try to motivate workers.

Given the standard orthodox assumptions of self interested actors seeking to maximise their utility at minimum cost, opportunistic behaviour is considered rational (Williamson,

1975). For workers, effort is usually assumed to lead to disutility. Thus in a bilateral contract, where the claims of one party are contingent on a certain time period spent at work and not on the level of output from that work, either supervision or incentives will be required to ensure that effort is productively expended. This is an illustration of the classic *moral hazard* problem in principal agent games⁹.

1.2.1 Bardhan's Recruitment Cost Theory for Attached Labour and Differential Wages

Bardhan constructed two theories for the existence of "labour-tying" arrangements between employers and so-called "permanent labourers" (1979a and 1983). The first was based on *recruitment costs*¹⁰. These costs were incurred by employers in the process of hiring labour, implicitly as a function of the time and effort involved in recruitment. Recruitment costs were higher, the greater the demand for labour relative to supply, ie the tighter the labour market. If there were two seasons, a lean and a peak season, Bardhan showed that contracts would be entered between employers and a group of labourers such that the latter would receive a wage above the marginal product of their labour in the lean season in exchange for a guaranteed supply of labour in the peak season.

⁹The agent, on her reservation utility, enters a contract with the principal. The principal's production depends on the effort of the agent. Without incentives or supervision, moral hazard occurs. The presence of uncertain exogenous influences on the outcome enable the agent to avoid effort without the principal being able to distinguish whether production has decreased through the agent shirking (Hayami and Otsuka, 1993, p3).

¹⁰The second, a risk-sharing model, is reviewed in section 1.2.2 below.

In the peak season, the wage of these tied labourers would be less than their marginal products. Remaining peak season labour requirements would be hired in via "casual" arrangements.

Earlier in the same paper Bardhan uses a one season model to explain wage variations among casual agricultural workers. Workers were rewarded for their ease of recruitment - ready availability. Labourers from landed households were harder to recruit because of their own labour requirements. As a result, monopsonistic (and thus wage-setting) employers offered landless labourers a premium wage. Thus landholding size would be negatively correlated with wage rates among casual agricultural labourers. This proposition was generalised to other groups who were restrained in supplying labour. For example, women were also irregular suppliers of labour because of "various social and economic restraints" (p493). They too received lower wages.

Regularity of supply was distinguished from its elasticity. Poorer workers - for whom Bardhan used a caste proxy in the validation of the model - revealed wage inelastic supply behaviour, thus lowering their bargaining power and enabling discriminating monopsonist employers to pay them lower wages. Yet at the same time, their ready availability caused employers to reward them with a higher wage. The net effect on the wage depended on which of these effects was stronger. Further, as the difficulty and thus the cost of recruitment to

the employer was negatively related to unemployment, profit-maximising employers were expected to pursue a strategy of maintaining a certain level of unemployment.

Critique:

The recruitment cost theory differs from that of competitive wage determination because of the assumptions of the monopsonistic (or oligopsonistic) employer and the heterogeneity of labourers' supply responses. This welcome degree of reality is faced, however, with a problem of tractability in the expectation that monopsonistic employers should offer premium wages to supply-inelastic labourers.

Bardhan acknowledged that the theory of discriminating monopsony predicts that workers with relatively inelastic supply will receive relatively low wages (p494)¹¹. The stronger the monopsony power of the employer, the lower the wage rate of such workers. However, the wage is positively related to the regularity of labour supply. Bardhan's argument that landed labourers receive lower wages than the landless is based on the unstated assumption that the effect of relatively wage inelastic supply behaviour of the landless on their wage level, is outweighed by their regularity of supply. Bardhan has concentrated on explaining the somewhat

¹¹See also King (1990, pp119-121). In a general discussion on monopolistic discrimination in relation to the credit market, Basu has indicated that discrimination is likely to be contested unless it can be seen to be practised according to a universally accepted principle (1989, p154; see also Rudra, 1992, pp416-7).

counterintuitive findings of large scale survey data rather than on the very serious aggregation and measurement problems involved. These are discussed below.

A second problem arises over the juxtaposition of the two models. As no discussion of labour supply is linked with the presentation of the permanent labour model, it is implicit that the same principles apply as have been established in the model of wage variation. Are the labourers who are paid higher wages as *casual labourers* the same ones who enter *tied labour contracts* under the recruitment cost rationale? If so, they are no longer casual and the single season model collapses.

The single season model is not used to build up to the more complex two season model and then tested. Rather, Bardhan intersperses multiple regression analysis of large scale survey data with the development of the theories. In this paper, the dialectical process serves to weaken rather than strengthen the argument. Perhaps this explains why, when a revised version of the article was published as a chapter in Bardhan (1984), the Agricultural Labour Enquiry (ALE) data used to support the recruitment cost rationale for labour-tying in the original article, was simply used as additional evidence of the relation between tied labour contracts and tight labour markets (*ibid*, pp80-81). The test presented in the original article merely demonstrated a negative relation between unemployment in a village and the incidence of

attached labour. The assumption that unemployment indicates ease of recruitment is not contentious. However, the test did not provide conclusive evidence of a causal link between high recruitment cost and the incidence of attached labour.

Bardhan argued that his results on casual wages were consistent with both recruitment cost and efficiency wage theories. Efficiency wages have been used frequently in industrial labour economics to explain higher than market clearing wages and thus the phenomenon of involuntary unemployment, where the quantity of labour supplied exceeds the quantity demanded¹². Binswanger and Rosenzweig separated the efficiency wage literature into nutrition-based and morale-based segments. The nutrition-based efficiency wage argument posits a direct relationship between wage, worker nutrition level and effort. In an empirical study, Rodgers found a relation between the number of dependents in an agricultural labour household and the wage paid by the employer. He concluded that this indicated the payment of nutrition based efficiency wages (1975). Mazumdar, in an earlier theoretical answer to Liebenstein's seminal efficiency wage paper, argued that such a relation could only work in an attached labour contract, where the employer reaped the benefits of higher worker effort (1959, pp196-197). Morale-

¹²For a review see the editors' Introduction in Akerlof and Yellen (1986); for a critique in relation to agriculture see Binswanger and Rosenzweig (1984, pp4-10) and Dreze and Mukherjee (1987, pp32-33). Dreze and Mukherjee's main criticism is that efficiency wage theory focuses purely on the employer's rationale, when, according to their empirical study, downwardly rigid wages are largely due to labourer resistance. There is no *a priori* reason why both tendencies should not be present (see, for industrial labour economics, Layard et al (1991)).

based theories, whether emphasising avoidance of a rapid turnover of employees or screening of more productive workers, were considered by Binswanger and Rosenzweig to be much less relevant to Asian agriculture than to the North American industries for which they were originally developed (pp8-9).

The tests Bardhan used to confirm the recruitment cost theories were unconvincing, due to several data related problems, some of which the author discusses (pp498-9; see also Bardhan, 1984, pp69-72 and 84-5). There are two main unaddressed *measurement problems* with the wage data. First there is no discussion of how the National Sample Survey (NSS) and ALE wage data were converted to a single money measure from combinations of cash, kind and food payment. We are not told whether the non money components of the package were included at all. Secondly there is no distinction between time rate and piece rate payment in this data, and thus the reader is again left in the dark regarding how piece rates (payment per unit of output or land area) were converted into daily wages.

The tests also have *specification problems*. First in the test on NSS data, the months identified as those of peak agricultural activity in West Bengal (June to September and October to December) obscure the important wet season lean period in Gangetic West Bengal and the western plateau region. Secondly, caste was used as an indicator of poverty to show that, as the single season model predicts, households with a

lower supply elasticity, receive a higher wage (or are more likely to enter a tied labour contract) for given supply regularity. Yet the caste variable used is the aggregate of Scheduled Castes and Tribes. In West Bengal there are important differences in access to long duration labour contracts between Scheduled Caste groups on the one hand and the often just recently settled Scheduled Tribes on the other (Beteille, 1974, p122; Davis, 1983, p205). Thirdly, a variable for women is used to demonstrate that irregular suppliers of labour (and thus those with relatively high recruitment costs) are less likely to enter tied labour contracts. However, although empirical studies have repeatedly shown that women hardly figure as attached labourers in India, except as domestic workers (eg Kothari, 1991) or very low paid livestock herders¹³, there is no evidence that this is due to their high recruitment cost.

Despite the internal inconsistency arising from the juxtaposition of the wage differential (single season) and permanent labour (two season) models, the essential economic logic involved is not counterintuitive. Where labour is scarce, demand seasonal and timeliness important, labour recruitment in the peak season is likely to be costly. One means by which employers can avoid such costs is via the hiring of seasonally tied labour.

¹³It is possible that in West Bengal in 1972-73 when the NSS data were collected, a much larger number of women worked as domestic workers and they made up a larger proportion of the labour force.

1.2.2 Bardhan's Risk-Sharing Theory of Labour Tying

In 1983, Bardhan published a second theoretical article on labour-tying in agriculture. In this version, labour-tying arrangements were theorised as *risk-sharing* contracts¹⁴. The contractual outcome was the result of both employer and worker decision-making - a break with the 1979 model, which assumed that the employer was a monopsonist and only dealt with labour supply issues in the context of a one period model to explain the variation in casual wages (see 1.2.1).

In this later paper, both the employer and the worker are utility maximisers, the employer's utility being synonymous with his profits, the worker's with his consumption. There are two types of labour contract: tied labour and casual (or spot market) labour. Employers seek to hire a profit maximising proportion of tied labourers. This proportion will depend on the expected state of nature and the associated spot wage. If he expects relatively tight labour market conditions and consequently high spot wages, he will prefer a greater proportion of tied labourers. The worker chooses the tied arrangements over the spot market when the expected stream of consumption from tied arrangements exceeds the expected stream

¹⁴The idea of labour-tying as a risk-sharing arrangement has been explored by others, including Newbery (1989, pp282-3) and Eswaran and Kotwal (1985) (see below). Newbery lucidly develops rationales for risk-sharing through permanent labour arrangements as surrogate futures contracts, flexible enough to allow for competitively determined or fixed wages for "casual" labour and both piece and time based payment regimes. He shows that mutual benefits from trade in risk are not fully exploited until at least a part of the wage payment is made in kind, thus indexing the wage against food price inflation.

from casual arrangements. It is assumed that workers cannot split their time between working as casual labourers and working on their own cultivation (this is contrary to the one period version of the 1979 model, which attempted to explain wage differences between landed and landless labourers on the basis that landed labourers maximised own production and income from hired labour jointly). Equilibrium occurs when demand for tied labour is equal to its supply.

Because of the uncertainty of actual output, a cultivator's peak season labour requirements are not known at the start of the agricultural year. In a two season labour market, employers, assumed to be risk neutral, contract labourers in the lean season to guarantee peak season supply. Employers' risk neutrality is evident from their willingness to pay advances to these tied labourers without precise knowledge of their own demand for labour. Labourers, assumed to be risk averse, prefer the guarantee of lean season subsistence, despite the cost of precommitting labour in the peak season, which involves a peak season wage less than that available in the spot market.

Because of the high value risk-averse workers place on a steady stream of income, as output related employment rises, workers' supply prices rise more slowly for tied than for

casual work. It becomes relatively cheap for employers to hire a greater proportion of tied labour¹⁵.

The prediction - that the proportional incidence of tied labour contracts is greater in tight labour markets - thus depends on the assumption regarding the risk aversion of labour suppliers in relation to labour demanders.

Critique:

Given its assumptions, the model provides a plausible rationale for a particular type of labour-tying, the payment of wage advances in the lean season against commitments to supply labour in the peak. However, Bardhan never isolates this type, implying that his theory is general, excluding only "unfree" contracts.

This distinction (between freely and unfreely entered tied arrangements) itself presents a *measurement problem*. Bardhan asserts that *voluntary* tied contracts can be conceptually separated from unfree labour where "sanctions underlying the employer's authority are based primarily on social or legal compulsion" (1983, p52). However, as he notes towards the end of a revised version of this model, the distinction may be

¹⁵Although the opportunity cost of the marginal tied worker also rises (as it is equivalent to the equilibrium rate of peak period consumption for casual workers), which makes the hiring of tied workers more expensive, this effect is assumed to be dominated by the effect of labourers' preference for stability of income on the relative supply prices.

blurred by data collectors in large scale surveys, creating a major problem for the interpretation of the data (1984, p84).

The assumption of the substitutability of tied and casual arrangements is questionable because certain types of operation may favour particular forms of contract (see, for example, the Eswaran and Kotwal model below). The assumption that the labourers' choice is limited either to tied or casual work is also too restrictive because most labourers cultivate some land. Further, both as individuals and households, they combine a range of hired labour contracts (another possibility noted later by Bardhan himself, 1984, p78, n4). It is necessary to go further than this model or the one set out in the next section does into the complexity of labour supply decisions. Many agricultural labourers in West Bengal do combine own cultivation with hiring out (Rudra and Mukhopadhyay, 1976). Indeed the overall mix of livelihood possibilities which varies according to needs (household landholding size, dependent worker ratio etc) and access (individual caste, age and gender) is crucial in influencing the action of a potential labour selling individual¹⁶.

Thus empirical verification of Bardhan's risk-sharing model is not possible because of the measurement problems associated with identifying and defining 'tied' labour arrangements. However, it usefully introduces risk into the analysis,

¹⁶Hart uses the division of enabling and constraining influences on labour supply into needs and access as an analytical device (see section 1.4, below).

differentiates between labourers' and employers' attitudes to risk, and establishes a second intuitively coherent rationale for labour-tying (the first being recruitment cost).

1.2.3 Eswaran and Kotwal's Model of a Two-Tier Labour Market with Risk-Sharing and Incentives:

Building on Bardhan's risk-sharing model, Eswaran and Kotwal constructed a theory of two-tier labour markets in agriculture (1985). This theory combines a risk-sharing rationale with the need for *incentives* to decrease employers' *supervision costs* (arising from asymmetric or imperfect information) without running into *moral hazard* problems with regard to worker effort. The key mechanism is that between the level of worker income and supervision costs. The basic premise is that total labour costs (which include supervision costs) are minimised by paying a higher wage than that which would minimise wage costs alone or that "*endogenously created utility differentials*" can be used "*as an incentive device for workers who can only be imperfectly monitored*" (Dutta et al, 1989, p93, authors' emphasis). Thus Eswaran and Kotwal take on a classic principal-agent problem¹⁷.

There are two types of work and two production periods. Work of Type 1, which occurs in both production periods, involves

¹⁷Eswaran and Kotwal claim that the supervision mechanism discussed here also fits white collar workers in developed countries. Indeed it has been discussed in the labour economics literature of W. Europe and N. America (eg Eaton and White, 1983).

care and judgement; work of Type 2, which occurs only in the second period, can be costlessly monitored because the output is easily estimable from observation of worker effort. There are two types of contract, permanent and casual, which are associated with Type 1 and Type 2 work respectively. Type 2 work, which does not involve the employer in monitoring costs, does not require a special contractual arrangement to avoid such costs. The employer enters a contract with a permanent labourer in the first period via which the employer is committed to paying the worker for work done over both periods, regardless of daily productivity. The worker is committed to supplying labour whenever required. At the end of the second period, the worker's performance is evaluated and the contract renewed *if the worker has delivered on all commitments and annual productivity reflects satisfactory effort*. Indeed, the contract continues *ad infinitum* such that, through repeated play, morally hazardous behaviour by either side is avoided. Trust and loyalty develop.

On the supply side, labourers have a choice of casual or permanent employment. It is assumed that they cannot mix casual employment with their own cultivation (as in Bardhan's 1983 model). Although the peak season casual wage rate is higher than the daily equivalent wage for permanent labourers, labourers strictly prefer permanent contracts because of the higher overall utility (including higher annual income)¹⁸.

¹⁸In a closely related discussion, Dutta et al confuse wage with utility level (1989, p93). The wage of a permanent labourer can be lower than the casual wage, and yet the utility higher. In Eswaran and Kotwal's

Moreover, in the model, where the opportunity cost of a permanent labourer equals the income of a casual labourer, the difference in income is assumed to exceed the perceived cost to the permanent worker of an increased "burden of responsibility", increased work (associated with effort and thus disutility) and "distaste for a serf-like existence" (p163).

The authors point out that the assumption of homogeneous labour is not essential (p174, n14). The crucial condition is an excess supply of casual labourers desiring permanent jobs, equivalent to "involuntary unemployment" in the "market for permanent labourers" (Dutta et al, 1989, p97)¹⁹. The relationship with permanent labourers, which is akin to a patron-client relation is sustained through the provision of plots of land, consumption credit, or protection. The predictions of the model are similar to Bardhan's: the proportion of permanent workers rises as the labour market tightens. As the peak casual wage rate increases, this

model, workers only strictly prefer permanent labour contracts because they achieve higher utility.

¹⁹Dutta et al cite the earlier model by Shapiro and Stiglitz (1984), to show how a similar mechanism had been postulated, whereby involuntary unemployment acted as an incentive device - a threat - to workers with jobs to induce them not to shirk. The maintenance of a pool of unemployed workers, supplying labour at the permanent wage rate but not being hired, enforced the threat. Shirking leads to firing and immediate replacement (Dutta et al, 1989, p97; Bardhan's 1979 model, suggests that monopsonistic employers could control the level of recruitment costs through setting levels of employment/unemployment). However, Dutta et al find that there is nothing surprising in the results of Eswaran and Kotwal or Shapiro and Stiglitz. This is meant as a criticism of these models' focus on "pure wage contracts" (Dutta et al, p97), where workers are paid by time rather than by output. Their argument is that "if wages are fixed, then the only way in which the worker can be induced to work is by fixing wages at levels higher than that obtaining in alternative opportunities, together with a threat of eviction" (p98, authors' emphasis).

necessitates a rise in the permanent wage, though by a smaller amount. Thus the marginal permanent worker becomes cheaper in relation to the marginal casual worker. By a similar mechanism, the proportion of permanent labourers increases as yield-increasing improvements are introduced. However, if the final output is held fixed and yet the burden of activity shifts across the two periods leading to even heavier demand for labour in the second season, there will be an increase in the proportion of casual labourers. Where mechanisation takes place, assuming it replaces labour in period one (for ploughing and land preparation, say), there will also be a reduction in the proportion of permanent labourers.

In their findings, Eswaran and Kotwal have thus left more room than Bardhan for bidirectional changes in the proportion of permanent to casual labourers. Unlike Bardhan's models Eswaran and Kotwal's does not require the "transaction between the principal and the agent" to be voluntary for the incentive mechanism to work. The rationale could still operate in a slave economy, say, as long as the "agent" (sic) was convinced that there was an existence into which s/he could be sold, which was even worse than the present one (p175).

Critique:

While Bardhan's 1983 model attempted to explain labour-tying *per se*, Eswaran and Kotwal defined the type of labour arrangement they were trying to model more precisely.

Further, in Eswaran and Kotwal's model, casual labour is not restricted to *daily* employment (although the authors do use "casual" and "spot market" interchangeably). Casual labourers may be hired for the whole of the second season. The "institution of *permanent* labour exists in order to facilitate the assignment of important labour tasks to hired labour without having to devote inordinately large amounts of resources to supervision" (p165, my emphasis). The incentive mechanism both to the principal and the agent relied on the repeated play of the permanent arrangement.

Eswaran and Kotwal's model, though more ambitious than either of Bardhan's in that it attempts to tackle the patron-client nature of long duration contracts, is still limited to looking at the effects of labour market conditions and technological change on the relative proportions of permanent and casual labour. The non-labour benefits to the patron of maintaining clients in terms of status and political clout are not addressed²⁰, although intangible costs to the "clients" are.

Nevertheless the model improves on both of Bardhan's models by recognising the possibility of morally hazardous behaviour by the principal as well as the agent. For example, the landlord, if not contracted to pay at the end of the year, could use local clout to duck out of his obligation. The

²⁰Where factional politics is rife, the number of clients a faction leader has is related to his rank in the competition to become "the biggest of the big men" (Davis, 1983, p149). Clients render their patron political support in return for occasional loans or advances (*ibid.*, p202). Hart has argued that the rural elite in Bangladesh build clienteles to improve their political standing and access to public funds (1984, p68).

contract, which is implicit, is enforced on both parties by the repeated nature of the transaction and the consequent loyalty and trust that develops (see Fafchamps, 1992; Platteau, 1991). However, in a labour abundant world, the owner of capital will be less harmed by reputation loss from breaking the contract than the permanent worker, who will return to the overall utility level of a casual worker, if he is sacked (Eswaran and Kotwal, p169).

It is not pointed out that repeated transactions are likely to be less often experienced by migrant labour gangs (see Chapter 5 and section 6.4.2), who may themselves be more susceptible to moral hazard and suffer more from opportunistic behaviour by employers.

Eswaran and Kotwal do not specify a particular cropping system for their model. If the model were to be applied in West Bengal (where a large amount of the evidence marshalled by Bardhan comes from), it would need to attune itself more convincingly to the production requirements of rice production. Definitions of the two types of work and the two periods do not reflect the distribution of tasks in wet rice cultivation. Ploughing and fertiliser application begin before the transplanting but continue until it is ended. Thus in the first period in the model, casual workers would be required in large numbers for transplanting.

The way principal-agent models such as this one have neglected workers' countervailing power is attacked by Bell (1989). Bell argues that proposing a principal agent context makes an implicit assumption that the agent has no power in determining the type of contract or its terms and conditions. On the contrary, he argues, there are no grounds for assuming this is true even when a large excess supply of workers exists. Eswaran and Kotwal's model assumed that a supply of labourers existed on their reservation utility ready to replace sacked permanent labourers. Yet, if the withdrawal of a single agent will make the principal worse off, then agents do have some power (Bell, p73). This would be the case after a permanent contract had been repeated for several years and loyalty and trust built up. Were the worker to leave then, the employer would suffer the cost of developing the same traits in the next worker. Thus Bell proposes that a more "natural" assumption would be that "bilateral negotiation" takes place with outcomes dependent "on the two parties' bargaining strengths" (p74). This comes closer to a political economy perspective (see section 1.3).

Despite these drawbacks, Eswaran and Kotwal's risk-sharing model tackles the explanation of the coexistence of diverse contractual arrangements more clearly than Bardhan's by positing a link between the possible incentive advantages of "permanent" contracts and the existence of a large pool of "casual" labour.

1.2.4 Rao's Model of Village Autarchy and Familiarity in Labour Exchange:

The models of permanent/tied labour reviewed so far have not accounted for spatial boundaries around rural labour exchange. Rao's model, on the other hand, gives village isolation (autarchy) a central role. Rao proposes three types of village: labour-importing, labour-exporting and autarchic. He cites Bardhan and Rudra (1986, p114) and Rudra (1984, pp257-8) as evidence that intra-village transactions are the norm and that the majority of villages are autarchic. Two types of labour exchange occur: intra-village "permanent" employment based on patron-client relations and inter-village casual employment. There are two types of household: those which hire in labour (landlords) and those which hire out labour (peasants). Most hirers out of labour are assumed to own land.

Landlords benefit from autarchy because the transaction costs of hiring labour in terms of recruitment and monitoring are reduced by familiarity with potential employees. Moreover, fearing search costs and possible unemployment involved in seeking work outside the village, peasants benefit too. Thus landlords are willing to pay above the casual wage rate and peasants to work for less than the offer wage. The peasants' discounting factor is calculated from their perceived disbenefits in unemployment and in searching for work on the open casual labour market. Although more likely to collude

than labourers according to the model, landlords do not take advantage of the opportunity to pay lower wages for fear of the "'malice of the ploughman'". Economic power is asymmetric but not unidirectional. Landlords seek to "preserve and stabilise economic control by sharing rents with employees".

Employment inside the village carries higher status and security of income than casual employment outside. Thus, the motivation for higher worker "reliability and diligence" which accounts for the monitoring savings enjoyed by the landlord come from the perception by peasants that they are in privileged contracts (see also Eswaran and Kotwal's 1985 model discussed in the previous section). Nevertheless, the incentive mechanism will be limited by:

- i) the nature of operation where work is organised in teams²¹, and
- ii) norms against competing with each other developed by labourers.

This model claims to show how the diversity in the degree of inter-village labour mobility explains the coexistence of two contract types. The argument is built around the reported geographical immobility of labour, which has not been adequately addressed in theoretical discussion of contractual

²¹Where individual effort is hard to measure, free-riding is likely. Problems of monitoring individual effort in team work are discussed in detail by Alchian and Demsetz (1972).

arrangements in Asia²². The concept that labour does not move between villages in response to some kind of price mechanism has parallels with the insider-outsider theory of employment discrimination in the corporate firm (see references in Nickell et al, 1992). The simple rationale behind this theory is that firms prefer to promote existing employees on whom they have much greater information when compared to outsiders, all other things being equal.

Rao addresses the need to explain the lack of intervillage mobility of labour in the presence of differences in wage rates (Bardhan and Rudra, 1986). However, attempts at explanation should not ignore the findings of Breman, this study and many others that seasonal migration of agricultural labourers is very common in some parts of South Asia. Indeed the decision to migrate may hang on the calculation of patronage benefits foregone (G. Wood, pers. comm.).

Critique:

Rao's argument is that autarchy develops out of the common interests of the employers and the employed. The employer saves recruitment and supervision costs and the employee saves job search and unemployment costs. This is a feasible explanation subject to an assumed set of institutions and behavioural motivations.

²²One of the "neglected themes" identified by Binswanger and Rosenzweig (1984, pp33-4).

However, a closer look at the construction of the model reveals lack of conceptual clarity. The concepts of village autarchy in labour exchange, patron-client relations and "permanent" labour contracts are run together. When the first exists, the other two both represent the sole form of employment relation. Thus the model implicitly assumes "casual" labour to be non-existent within an autarchic village. In such villages, patron-client relations describe all hiring of labour. Conversely, labour-hiring between villages, whether neighbouring or far apart emerges as entirely "casual". The coexistence of "permanent" and "casual" labour contracts *within* a single village is not accounted for contrary to many empirical studies (see note 2, above). Further, the notion of "village" on which the argument turns is not properly defined (see Rudra (1984) who defines the village as "a cluster of homesteads in close proximity to each other and usually separated from each other by open spaces", p250, n1).

A second inconsistency is Rao's derivation of the land owning structure in a "representative" village from the aggregated distribution of farm size by percentage of households and percentage of cultivated area for all India (pp33-4). This is an absurd aggregation given the extreme variation in ecology, cropping possibilities and agrarian structure in the Indian union (pp243-4). Thus the model both lacks conceptual clarity and confuses generality with a special case.

These drawbacks limit the general applicability of the model. However, it is useful in drawing attention to particular issues relevant to the determination of rural labour arrangements. Two specific improvements over other models so far considered are

- i) its concern with the effect of locality - the distinction between hiring labour power in the employers' own locality and outside (whether immediately outside or further afield), and
- ii) the consideration of labourers' countervailing power in bargaining. This latter point to some extent answers Bell's criticism of principal agent models (see above, section 1.2.3).

1.2.5 Binswanger and Rosenzweig's General Model of Production Relations in Agriculture

Binswanger and Rosenzweig built a model for the analysis of production relations²³, which, in their opinion, assisted "in explaining the diverse set of actual production relations observed in a particular rural environment in an internally consistent way" (1986, p503). Rationales for the coexistence of four distinct contractual types were built into the model

²³Production relations were defined as "the relations of people to factors of production in terms of their rights of ownership and use in production, and the corresponding relations of people among each other as factor owners and renters, as landlords, tenants, workers, employers, creditors and debtors" (1986, p503).

(pp520-1; see also Rosenzweig et al, 1988, pp79-86 for a similar attempt).

The model involved combining the analysis of "behavioral determinants" of production relations (risk, risk aversion and information problems) with that of "material determinants" ("the material features of agriculture and the material attributes of its factors of production") (p505). Asserting that a knowledge of the history and agroecological specificities of a region were necessary for such an analysis, Binswanger and Rosenzweig chose one region: South Asia²⁴. Crucially they assumed that all economic decisions made by individuals were based on the objective of income maximisation and a concern to avoid seasonal dips in consumption (loc cit).

Binswanger and Rosenzweig used just a few of the stated assumptions of their general model of production relations to build their rationales for the coexistence of diverse labour arrangements (pp519-521). They assumed risk in production and exchange as well as health risks, costly information, individual self interest, dislike for effort and risk aversion. From these assumptions they derived the general consequence of imperfect or asymmetric information. Since individuals were self interested and information was costly, individuals would only part with information if it was to

²⁴Elsewhere, Binswanger and McIntire (1987) have developed a model for the analysis of production relations in Africa. A crucial distinction is that between the high population density of south Asia and the relatively low population density in Africa.

their advantage to do so. For example, while workers with lower productive capacities would prefer employers not to have full information about the productive capacities of all workers, more productive workers would prefer employers to be fully informed. As defined earlier (section 1.2), asymmetric information results when the information held by all parties to a transaction about the likely decisions and behaviour of other parties is not equal. Asymmetric information in turn gives rise to incentive problems, such as adverse selection and moral hazard.

On the "material" side, they assumed seasonality (involving seasonal fluctuation in the demand for inputs, including labour), and a need to synchronise the timing of agricultural operations (due to spatially dispersed production).

Four types of labour arrangement were compared on the bases of incentives to worker effort, other costs (such as the cost of recruitment) and risks. These were: unpaid family labour; and hired labour on short term piece and time rate and permanent contracts. The coexistence of piece rates and time rates in short term contracts was explained by the general incentive superiority of piece rates (less supervision was required to ensure worker effort) only being feasible when the worker's output was measurable both quantitatively and qualitatively. Thus where output was not measurable, time rates would be expected to obtain (for example in the case of weeding); and where it was measurable, piece rates would be expected.

Eswaran and Kotwal, who also associated arrangement types with particular agricultural operations, made their distinction according to the costs of monitoring. Spot market arrangements were associated with operations for which monitoring was costless (see section 1.2.4).

Binswanger and Rosenzweig went on to argue that, while there were much fewer costs associated with the labour of family members, the larger the family size, the lower the share of each individual in the profits and thus the lower the incentive to work. Moreover, complete reliance on "family" labour was avoided because of its "'committed'" cost of consumption throughout the year and because of the seasonality of farm operations and associated fluctuations in the demand for labour. Thus it was optimal to hire in non family labour on a short term basis in the peak season, such that the quantity of family and hired permanent labour would be less than peak season demand.

However, because of the risks associated with the need to synchronise the timing of agricultural activities "across farms" and the importance of performing them on time, it would not be optimal to rely on hired [implicit daily] labour alone. Thus it would be optimal also to employ permanent labourers at above the number demanded in the lowest trough of the lean season. This argument, although constructed for a different purpose, provides an explanation (based on deviations from the perfect competition assumptions of no uncertainty and perfect

information) for the coexistence of four contractual arrangements for the employment of agricultural labour.

Binswanger and Rosenzweig explicitly invited empirical testing of their general analytical framework (p535). In an application of the model, they first attempted to allow for the regional characteristics of South Asian agriculture by adding further assumptions. Thus they assumed land to be scarce and land titles to exist, that the use of draft animals was common, that transport and communication costs were high, that slavery and other forms of "extraeconomic coercion" did not exist and that competition characterised relations among all agents in the economy (pp523-4). The rationales for the coexistence of diverse labour arrangements outlined above were then used to predict changes in labour arrangements following the introduction of new agricultural technology. The authors concluded that the demand for short term relative to long term labour would increase because the seasonality of labour demand would be enhanced by the use of higher yielding varieties²⁵. There would also be an absolute increase in demand for all labour and higher peak season wage rates. The latter would lead to "an increase in the use of migrant labour and an inducement to invest in harvesting or harvest processing machinery" (p533).

²⁵This prediction is the opposite of Bardhan's (1979 and 1983) and Eswaran and Kotwal's (1985) (see sections 1.2.1-1.2.3 above). These authors argued that green revolution technology would increase the ratio of demand to supply and thus the proportion of "attached" labourers in the workforce. Binswanger and Rosenzweig's prediction is made after taking account of the possibility of this countervailing effect.

Critique:

Binswanger and Rosenzweig's "general" model considers only the demand side of the equation. Moreover, its internal consistency appears shaky. For example, they question why cultivating households should not rely entirely on "family labour" without providing the first obvious answer of differential farm size. This indicates that they have neglected to differentiate cultivators by scale of enterprise. Clearly those households cultivating very little land will not employ permanent labourers.

The identification of South Asian agriculture with unitary material and behavioural characteristics obscures the diversity of agrarian structures and rural social relations within that region. In application the model is further weakened first by its assumption that "extraeconomic coercion" does not exist (followed by a statement that it might do but the model will ignore it) and secondly by its assumption of "competition among all agents in the economy". Competition does not square with Binswanger et al's earlier empirical study (1984), which found models of imperfect competition to provide the most appropriate explanations for exploitative (undefined) relations. In the ICRISAT villages in Maharashtra, markets for women and men workers were segmented and access to certain arrangement types in one village was influenced by caste, implying explanations for diversity based on the social institutions of gender and caste (pp167-8).

Despite the limitations of Binswanger and Rosenzweig's model, it usefully draws attention to the information problems faced by agricultural employers regarding labour effort and the possibility that specific forms of contractual arrangement emerge as responses to a need for incentives. Like Bardhan's recruitment cost model (1979; see section 1.2.1), Binswanger and Rosenzweig's takes explicit account of the seasonality of crop production and the need for timeliness, especially in operations involving high yielding varieties. However, Binswanger and Rosenzweig also bring out the problems of supervising cultivation on fragmented plots.

1.2.6 Dreze and Mukherjee's "Core Features" of Labour Exchange in Rural India: Diversity of Reward Systems for Casual Labourers

Dreze and Mukherjee worked inductively towards a set of core features of casual labour arrangements (1987). Incorporating a model partially explaining the coexistence of three "reward systems" (termed "payment regimes" in this thesis), these features were built up using data from an in depth field study in Palanpur village, Uttar Pradesh, and a review of empirical and theoretical literature on labour contracts in rural India as a whole.

The report of Palanpur data was confined to "casual" labour contracts inside the village. This was characterised by the observation that "as a rule, casual labour is hired on a

strictly daily basis, and employers contract with labourers during the evening of the day preceding the actual performance of the task" (p9). It was distinguished from "permanent" and "jajmani" relations in the village and "casual" and "regular" wage employment outside. Most of those hiring out casual labour owned and cultivated land themselves, but others were landless and, for all, casual wage labour was an occupation of last resort.

They thus proposed the following as core features of casual labour markets in rural India:

1. Casual labour is the most important type of labour contract and is generally hired on a day to day basis.
2. Search is done by employers, who "call" labourers the evening before the work is required.
3. Hiring labour across villages is rare.
4. Involuntary unemployment is common, especially in the slack season and especially for less productive workers.
5. There are three reward systems: daily wages (time rate), piece rate and harvest shares. The choice between them [implicitly by the employer] depends on supervision costs, quality and timing requirements and the level of wages.

6. There is a uniform daily wage rate for all adult male labourers of the same age in the same operation.

7. Earnings per day and per task from piece rated work varies over time and across individuals.

This set of propositions does not represent a coherent theory or model in itself. However, it is intended as "material for theoretical investigation" (p27). Proposition 5 is at the heart of Dreze and Mukherjee's paper. It arose from a discussion of the degree to which real wages adjusted to changes in the quantity of labour supplied and demanded. Three possible means of adjustment were discussed: changes in the prices of staple goods, changes in payment regime and movements in money wages. The first was dismissed because such price changes are not directly linked to wages and the last because money wages have been observed as downwardly rigid. The question remained of whether changes in the "mix of contracts" (in this case the mix of one attribute of "casual" contracts - payment regime) were flexible enough to clear the market. Dreze and Mukherjee argued that although such changes were "the really important source of flexibility in real wages", harvest shares had "their own rigidities" and piece rates and time rates were not perfect substitutes (p26). The non substitutability of piece and time rates was predicted by Binswanger and Rosenzweig's model (see section 1.2.5)²⁶.

²⁶Binswanger and Rosenzweig argued that piece rates were always preferred by employers but were only feasible when both the quality and quantity of worker output was measurable.

Thus the coexistence of the three could not simply be explained as a means for competitive wage determination bypassing money wages. However, no alternative attempt to explain it was made.

Kikuchi et al, on the other hand, found that changes in contractual mix in a Javanese village did provide sufficient flexibility for market clearing to take place without downward shifts in the money wage (1984)²⁷. Remuneration through harvest share contracts was found to decrease as additional work obligations were added with no change in the share. However, there were several problems with this empirical analysis. First, it was not clear how the "market wage" had been calculated and secondly they did not account for the lack of labourer resistance to changes in the contract mix. Given that workers had to perform transplanting and weeding of the crop they harvested, they could not be assumed to be suffering from money illusion.

Critique:

Dreze and Mukherjee marshalled evidence to suggest that employers did not collude, either explicitly or implicitly, except in Kerala and West Bengal. However, their argument rests on evidence that employers include many small farmers and the evidence from one study in Tamil Nadu that small

²⁷See also Clay (1976) for an analysis of changes in contract mix as a proxy for wage flexibility in rural Bangladesh.

farmers initiated wage increases in peak seasons (p26). The literature they cite suggests more precisely that there is an association between agrarian structure and the degree of employer collusion.

Dreze and Mukherjee laid much emphasis on the role of mutuality among labourers in the form of collective resistance to wage cuts²⁸. They used this to dismiss efficiency wage theories: instead of asking why employers were paying higher than market clearing wages, they argued that efficiency wage theorists should have been considering how and why labourers acted together to resist cuts in the money wage. Dreze and Mukherjee's specification of labourers' instrumentality in bargaining for money wages, neglected explicit consideration of the mix of contracts or their components.

Dreze and Mukherjee argue that employers choose between time rate and piece rate depending on four requirements: the speed of completion (piece rate leads to faster completion), quality control (loss of quality in piece rate), supervision costs (lower supervision costs in piece rate), and unit labour costs (if, as in Palanpur, piece rates are negotiable and time rates are downwardly rigid, piece rates may lead to lower unit labour costs). They reach similar conclusions to those of Binswanger and Rosenzweig that piece and time rate regimes are not directly substitutable. However, Dreze and Mukherjee's

²⁸In contrast, Rao (see 1.2.4) holds that it is typically employers who collude in closed village labour markets, while labourers' best interests are most often served by competing with each other.

formulation is less deterministic. The final preference will vary for each employer. Thus "no activity [in Palanpur] is exclusively performed on a piece rate basis" (pp13-14). Nevertheless they mention weeding as an example of an activity for which piece rates are likely to be preferred by an employer. This diverges from Binswanger and Rosenzweig, who argue that weeding is less likely to be paid by piece rate because effort is less measurable. The other examples given by Dreze and Mukherjee are digging, building and thatching.

Dreze and Mukherjee's core features are generalities extrapolated from their own field research and from the literature to reach a series of conclusions. Several of their features remain empirical questions. Is "casual" labour the most important type of labour contract and is it generally hired on a daily basis? How often is search carried out by labourers rather than by employers? Is there a uniform daily wage rate for adult males of the same age in the same operation? More interestingly, perhaps, why does wage differ between operations, genders and ages? Are there usually three reward systems? Our research sheds further light on these questions (see section 1.6).

In the exercise of identifying features common to rural labour contracts in India, the authors state that they are not belittling the exercise of looking for regional variation, nor denying that regional variation exists. However, an alternative reading of the literature could have produced a

much greater emphasis on *differences* in labour arrangements associated with particular combinations of agrarian structure and agro ecology. It is towards such a systematic typology that this thesis aims to contribute.

1.2.7 General Limitations of the Five 'New Institutional Economics' Models and Dreze and Mukherjee's 'Core Features'

The five 'new institutional economics' models reviewed so far have attempted to explain the existence of "tied" or "permanent" labour hiring institutions and their coexistence with other, usually "casual" labour arrangements. Dreze and Mukherjee shifted the focus to casual labour, seeking to identify core features arising from their own and other empirical studies. Particular attention was paid to the determination of casual wages and the coexistence of diverse payment regimes (termed reward systems by the authors). All the models and Dreze and Mukherjee's "core features", have been individually summarised and critiqued. Problems common to more than one model are summarised below.

First, one consequence of the assumption of individual self interest, which is not acknowledged, is that it implies global (unbounded) rationality in contractual choice. The self interest assumption is made explicit in Binswanger and Rosenzweig's model and global rationality is also implicit in Rao's profit maximisation assumption. The quantity of information controlled by employers is not constrained by

cognitive limits but by its costs. This thus falls into Bartlett's first category of imperfect information literature (1989, pp76-7)²⁹.

Secondly, in all the models, household decision-making is implicitly treated as if it were synonymous with the decision-making of a single individual.

Thirdly, individuals' actions are not constrained by social institutions or alliances such as caste, gender, kinship, descent line or residence groups; they are instrumentally as opposed to procedurally rational in Hargreaves Heap's terminology (they maximise at each decision rather than developing repeated habits or norms (1989, pp3-4)).

Fourthly, with the exception of Rao's model and the Dreze and Mukherjee core features, power has only been included in terms of employers' monopsonistic market power. In situations of mutual dependency, there is no single location of power; "casual" labourers cannot be assumed to be in unlimited supply at a wage equal to their reservation utility.

A fifth limitation, especially evident in the Bardhan (1983) and the Eswaran and Kotwal (1985) models was the assumption that casual labourers could not mix the hiring out of labour

²⁹Bartlett divides the literature into two categories. The first assumes that individuals "are capable of globally rational decisions but are unable to acquire information costlessly..." The second assumes bounded rationality - the individuals are "mentally unable to process unlimited quantities of data" (Bartlett, loc. cit.).

with other livelihood activities. This is counterfactual given the numbers and proportion of labour sellers in India who cultivate land and the importance of other activities³⁰.

Sixthly, the models do not consider the consequences of the mobility of individuals between contract types. Because a degree of mobility exists, Binswanger et al use the concept of sub-markets rather than segmented markets (1984, p167). If, for example, a seasonal tie commits a labourer to 15 days work in a month long peak season, there is a strong likelihood that she would also work as a "casual" labourer for other employers on days when her services were not required. It is even more likely that a labour selling household will be engaged in a number of livelihood activities including more than one type of labour arrangement.

The seventh problem is one of definition. The five models and Dreze and Mukherjee's core features assume that there is a clear distinction between "casual" and "tied" labour. In the opening section, I illustrated the difficulty of defining these categories, given the wide variety of terms and conditions evident from the empirical literature. Indeed, several studies have commented on the blurred boundaries between these two groups of arrangement types (including Rudra, 1992, p414; J. Harriss, 1982, p239; Breman, 1985, p262). "Casual" labourers may be depended on by certain employers to whom they are in some way obliged. Not all

³⁰Regarding the last point see Agarwal (1990) and Beck (1990).

patron-client relations between employers and labourers are associated with long term labour arrangements (Rudra, op. cit.). A part of the problem arises from the confusion between the duration, degree of obligation and interlinkage involved in an arrangement. As I have discussed elsewhere, this has enabled semantic and ideological divergencies to appear as substantive differences in works on changes in contractual arrangements (Rogaly, 1993, pp296-300).

This seventh limitation imposes severe problems on attempts to label any particular "type" of labour arrangement as preferred by one or other party. For example, Eswaran and Kotwal's theory involves a strict preference by labourers for permanent contracts. Permanent contracts always deliver higher levels of utility. As we have seen, theories of a selective allocation of "privileged" labour contracts exist in labour economics generally and not just in the labour economics of the agricultural sectors of labour abundant agrarian economies. A wider sweep of the empirical literature suggests that this notion of privileged permanent labour contracts, does not apply to all arrangements of long duration. This casts doubt on Bardhan's finding (1984, p84) that all labourers and employers interviewed said they preferred the contracts they were in. At the same time, however, some permanent contracts may be highly prized by some labourers - others taken as a last resort by the weakest, despite a general association of dependence and committed labour with low status.

Despite these common limitations and the internal inconsistencies particular to each model, the essential economic rationales around which the models are built remain potentially important elements in the explanation of the existence and coexistence of empirically encountered hired labour arrangements. Part of an explanation for a particular labour arrangement could plausibly lie in individual employer responses to seasonally high recruitment costs ('labour-tying') and/or to the problem of motivating and supervising labour arising from imperfect or incomplete information on labour effort ('permanent' or piece rate arrangements as incentives) and/or in joint employer-labourer responses to the risk of lean season subsistence crises for labourers and peak season supply shortages for employers ('labour-tying' or 'permanent' arrangements as risk-sharing devices). These rationales will thus be recapitulated in the empirical sections of the thesis in order to distinguish new institutional economics (NIE) analysis from other approaches. Indeed the 'social embeddedness' approach, which I elaborate later in this chapter, often contextualises and enriches NIE logic rather than directly contradicting it. The complementarity of explanations based on individual agency to those based on economic and social structure is a recurring theme throughout the thesis.

The models reviewed here raise two further analytical issues. Bardhan's discussion of wage differences among labour households (1979a; and section 1.2.1 above) raises the issue

of why worker remuneration differs between and within arrangement types. It is not possible to test Bardhan's model because the calculation of wages would involve measurement of units of effort, which is not feasible even at the village level because operations vary in intensity. However, we can investigate the earnings received by a sample of labourers and paid by a sample of employers and examine the differences between and within arrangement types. Similar analysis can be carried out on other attributes of the remuneration package, such as the form and time of payment, given that the categories of these variables can be ranked.

We will also investigate whether there is a relation between types of arrangement and particular agricultural operations as Binswanger and Rosenzweig, Dreze and Mukherjee, and Eswaran and Kotwal suggest. This will help us to distinguish how much of the diversity is related to the technology of agricultural production and associated issues of labour management. If types of work do not correspond with types of arrangement in my study, then doubt will be cast on the incentive mechanism suggested by Eswaran and Kotwal's model.

1.3 MARXIAN POLITICAL ECONOMY APPROACHES TO EXPLAINING DIVERSE LABOUR ARRANGEMENTS

In the models outlined above, equilibria are sought such that "each individual agent is doing as well as it can for itself, given the array of actions taken by others and given the institutional framework that defines the options of individuals and links their actions" (Kreps, 1990. pp3-6)³¹. The emphasis is thus on constrained choice. Scholarship in political economy, on the other hand, has focused on explaining labour relations in terms of conflicts of interest. Thus Adam Smith viewed wage determination as a bargaining process between unequally endowed agents. "It is not difficult to foresee which of the two parties must, upon all ordinary occasions, have the advantage in the dispute" (1976, I.viii.II, cited by Rothschild, 1992, p87). Thornton concluded that "the labour of uncombined labourers is...sold at a disadvantage" (Bharadwaj, 1989, p142) because unlike "tangible commodities", where the price is determined by "the competition of dealers, the price of labour may be determined by the competition of customers". Because of poverty "labour is almost always offered for sale without reservation of price" (Thornton, 1886, p93, quoted by Bharadwaj, pp141-142).

³¹The models discussed did not account for the persistence of suboptimal institutions, for which see Akerlof (1976), Kuran (1987), and Basu (1986).

In classical Marxist theory, social relations of production are defined by the mode of appropriation of surplus labour³² with a corresponding structure of ownership of the forces of production (J. Harriss, 1982, p110). The empirical complexity of production relations in a given space and time is an outcome of the coexistence and interpenetration of modes of production in a process of transition (Patnaik, 1987, p2; see also Bharadwaj, 1974).

Using this conceptual framework, classical Marxist scholarship of rural south Asia has commonly made the following assumptions:

i) in analyzing and characterising empirically observable production relations, the most important explanatory parameter is class³³;

ii) that history is an *inevitable* process of transition from slavery through feudalism and capitalism to socialism, with

³²Surplus labour is labour expended during the part of the working day when the worker is producing value over and above that which is necessary to reproduce her/his labour power. The mode of appropriation refers to the means by which surplus labour is "extorted from the immediate producer" (Marx, 1976, p325).

³³Marx himself did not define class. However, the groups that appeared as classes in his writing were unique to each theoretical mode of production (eg lord, serf, guild-master and journeyman under feudalism; industrial capitalists, financial capitalists, landlords, peasants, petty bourgeoisie and workers under capitalism). It has been defined variously according to ownership of the means of production, net labour hiring practice, and "exploitation status" (Elster, 1986, pp142-3). In section 1.3.1 below I do not select any of these definitions of class, the point being that orthodox Marxist analysis insists on the centrality of class, but does not use a consistent definition.

struggle between classes as the motor (a form of historical determinism);

iii) that each of these stages is *progressive* in relation to its predecessor (history as progress).

1.3.1 Class Reductionism

As class is usually assumed to be the most important parameter for social differentiation, other sources of conflict (including age, gender, caste, religion, language and region) are interpreted in the light of this single insight.

Brass presented a case study from Haryana to challenge the notion that "attached" labour relations, which he treated as a single category, were entered into by labourers voluntarily and for their own "particular reason[s]". Moreover he argued that attached labour could only be understood in terms of the "class/decomposition/recomposition (or restructuring) that accompanie[d] class struggle". Thus the persistence or reappearance of these apparently "feudal" production relations was explained as capitalists' "deproletarianisation" strategy to counter growing labour power (1990, pp36-7)³⁴.

³⁴Although the reverse was implied by the quotations from Smith and Thornton (above), Brass's reasoning in his argument that proletarianisation (the creation of a propertyless class dependent on selling labour power and "free" to do so) could be seen by capitalists as leading to increased power for labourers, relied on the assumed concurrent loosening of personal relations, credit ties and tenancy relations. With the success or failure of a crop at stake, together with the capital invested in it, the new class of labourers (if organised) could hold the capitalist farmer to ransom. Moreover, the capitalist could fear losing the social control he was once able to exercise over former clients.

Repeatedly, empirical studies have squeezed complex societal relations into class categories based on land ownership and the extent to which labour power is hired in or out. Ramachandran's richly detailed study of wage labour in the Cumbum Valley, Tamil Nadu, separated out the propertyless as a class, dealing exclusively with *their* material condition, and terms and conditions of employment. For the sake of his study he created a class homogeneity of labour as defined by the ownership of the means of production and net labour hiring practice. Yet there is no *a priori* reason why the first criterion for group loyalty should be class (Elster, 1986, see below). In one contemporary study of rivalry in a West Bengal village, status was "shown" to be the prime cause for competitions (Davis, 1983, see section 1.5)³⁵.

Banaji in another context (1990, p297) emphasised the distortions implicit in the division of the peasantry into rich, middle, poor and landless, when wage labourers were often subsumed into the poor peasant category³⁶. He insisted that the peasantry is both "amorphous and profoundly divided" (his emphasis) and that such a rigid stratification terminology was not the most appropriate way of trying to make sense of this "shifting and ambiguous reality".

³⁵Davis found individuals to rank themselves according to caste, among other things. Castes competed to increase their relative status.

³⁶See, for example, Bharadwaj (1974, pp62-5; 1985, p11).

Elster has emphasised the difference between the *relevance* and the *centrality* of class in analysis of labour relations. In order to do this he posited class as one basis for group solidarity and collective action. While he argued that in any class society class is likely to be a source of conflict and that class issues would pervade other sources of conflict, he disagreed with the orthodox Marxian view that class was always "the most salient issue" (op. cit., pp 160-1). Prakash extended this in his critique of the historiography of agricultural labourers to specify the intertwining of "class, caste, 'tribe', gender and religion" in determining the category "'labourers'" (1992, p45). Such critiques have enabled political economic analysis to go beyond orthodox Marxist categories to explain the reproduction of relations of domination and, in the process, to start to account for diversity in labour arrangements.

Bose's work on agrarian relations in late colonial Bengal (1986) provided a more than convincing case for a *regionally* differentiated analysis. He demonstrated the dangers of generalising agrarian change too broadly with examples of the distinct processes of change in north, west/central and east Bengal³⁷. Mohapatra has argued explicitly that regional

³⁷Van Schendel (1991) closely followed Bose's regions in his attempt to identify changes in employer-labourer relations in the same period. Beteille (1974) illustrated the problems of trying to generalise insights on agrarian relations over the whole of West Bengal in his discussion of the contrary meanings of "jotedar". These studies cast further doubt on the validity of taking the whole South Asian subcontinent as a region in the characterisation of production relations (see section 1.2.5 above for details of the Binswanger and Rosenzweig model, which tackles South Asia as a single region).

differentiation is required to account for distinct processes of change due to "local ecological context[s]" and "the structure of power" (1991).

1.3.2 Freedom versus Unfreedom

Echoing the assumption of history-as-progress, a number of Marxian studies positioned labour arrangements on a continuum between unfreedom and freedom (Ramachandran made this the central concern of his study (1990)). Freedom was used in the sense that, not bound to a particular employer, labourers could choose to whom they would sell their labour power. Ramachandran acknowledged that his definition of free labour did not imply that a worker under capitalism was completely free (p1 n2). The unfreedom/freedom opposition and the notion of history-as-progress from one to the other have been criticised by Prakash. "Neither rooted in history nor complicit in power, the analysis of bondage, servitude and slavery as different degrees of unfreedom presents itself as self-evident distinctions while privileging free labor as outside the reach of power relations...Although it is true that these statuses represent historically given categories, their arrangement as a spectrum of conditions makes sense only in that it suggests a progressive restoration of a lost essence - freedom" (1990, pp6-7; see also 1992b)³⁸.

³⁸For an opposite view to that of Prakash, see Brass's attack on post-modernism, for its denial of "the possibility of a universal process of socio-economic development", and for signalling "the abolition" of "emancipation as the object and attainable end of historical transformation, and along with it socialism and communism" (1991, p177).

It is important to distinguish between the economic compulsion to sell labour power and the social compulsion to sell to a particular employer. The latter (pure unfreedom) is now rare in agriculture according to most contemporary field studies. This however, does not imply the opposite - that freedom of labour is the norm. Despite the low social status involved in hiring out labour power for agricultural fieldwork (which varies for region, gender, caste and religion), hundreds of millions of individuals in south Asia are not free to choose not to be agricultural labourers.

Moreover, seasonal fluctuations in the volume of employment and access to earnings, makes many people dependent for advances, loans or employment in the lean seasons on the group patronage of local employers who have claims on their labour in return in the peak season. Thus individuals, households, descent lines and hamlets may be dependent for their livelihood on a single employer or group of employers defined by descent line, hamlet or subcaste. Conversely, an individual employer or group of employers may be dependent on local labourers for peak season labour power.

The process of production and the requirements of reproduction create a mutual dependency. However, the unequal distribution of economic power, reinforced by cultural and religious domination (Prakash, 1992a, p36) is manifest in labour arrangements that themselves contribute to the reproduction of existing power relations and to changes in those relations.

These issues are addressed in part by Rudra's model outlined below.

1.3.3 Rudra's Theory of the Self-Contained Village Society

Ashok Rudra was a maverick Marxian political economist. Rudra believed that labour relations should be analyzed in terms of conflicts of interest, but did not share orthodox conceptions of the necessary centrality of class, the prevalence of "free" labour in Indian agriculture or a teleological view of history. Indeed, in his "Theory of the Self Contained Village Society" (1992, Ch16; see also 1982, pp108ff and 1984, pp252-6), Rudra emphasised the insularity of village exchange as well as the personalised nature of labour transactions . He posited two classes³⁹ in a village:

i) Labourers - the majority, who owned little or no property and whose livelihoods depended on the sale of labour power; and

ii) Property owners, the minority, who "derived income by appropriating a surplus out of the use values produced by labourers" (1992, p402).

³⁹In an earlier paper, Rudra acknowledged the existence of other social groups, for example those who neither hire in nor hire out labour, but asserted that they did not represent classes (1978). The definition of class according to labour hiring status was also used by Roemer (1982) and Eswaran and Kotwal (1989).

The village is self-contained in that hiring of labour takes place only internally. Other transactions, such as those involving commodities and credit, cross the village boundary. This autarchy in labour exchange (which was adapted by Rao for his model, see section 1.2.4) generates patron-client relations of "*mutual though necessarily unequal dependence*" between the two classes. Relations are not merely economic, but extend to "all aspects of the life process". The mutual dependence is thus a *social* phenomenon (pp404-5, my emphasis). The stress here is on the *inequality* of these relations, which was not addressed by Rao or any other of the neo-classical models reviewed. In the event of non cooperation, property owners are much more likely to survive, given their asset holdings and grain stores, than labourers.

For Rudra, there are three kinds of power, all of which affect the economic decisions of the affected parties:

- a) that exercised by class ii) over class i) (potential or actual collusion among property owners over "the" wage rate);
- b) that exercised by class i) over class ii) (collective action or understanding by labourers over "the" wage rate);
- and
- c) the ideological forces of "customs, traditions, taboos etc," applying "to all sections of the population, including property owners and labourers" (p402).

In labour arrangements agreed by individuals, the boundaries set by a), b) and c) have to be respected (p405). There is a degree of *group* commitment to engage with the other class in the home village. This involves employers' not hiring labour from adjacent villages and labourers' not selling labour in those villages.

Rudra explains the consequences of his model for analyses based on perfectly competitive or classical Marxist assumptions. Contrary to the former, there is no one price for labour either across villages (as a result of autarchy) or within a village (if the different types of arrangement are taken into account). It would be ridiculous to treat each arrangement in each village in south Asia as a market segment and go on to try to demonstrate competitive wage determination processes. Secondly, as relations are highly personalised, the freedom of purchasers and sellers of labour is not respected. Even apparently casual labour relations may emerge from a long-standing patron-client relationship, affecting a labourer's right to exit (another distinction from Rao's model, which treats patron-client relations and permanent contracts as synonymous, see section 1.2.4).

Orthodox Marxian analysis of capitalist agriculture is also stymied by the model according to Rudra. How can labour be treated as a commodity, as such analysis requires, when it is not free to break territorial limits, or when "custom" limits the participation of certain individuals in certain types of

manual labour? Moreover, labour does not combine to form a "class-for-itself". Labourers themselves contribute to the enforcement of village boundaries against entry by other workers.

As a result of the non-applicability of either of these two economic paradigms to village labour exchange, Rudra called for a new paradigm (p416).

Unlike the abstract models reviewed in sections 1.2.1-1.2.5, Rudra's model did not offer an equilibrium analysis to explain the existence of a particular contractual form. Rather, he demonstrated the inadequacy of existing theoretical orthodoxies in explaining the complexity of village labour exchange. At the same time, he developed an abstract model, which accounts for diversity in contractual form. Employment relations are conceived of as personalised, yet bounded by group solidarities, obligations and territorial limits. The logical next step for Rudra would have been to apply this model to his detailed descriptive presentation of contractual diversity from large scale surveys (eg Rudra and Bardhan, 1983, Chapter 1; Bardhan and Rudra, 1978; 1981).

Rudra's empirical studies of labour relations were not limited to those carried out in collaboration with Pranab Bardhan. In 1982, he published a study on "Extraeconomic Constraints on Agricultural Labour" for ARTEP. This minutely detailed study contrasted, among many other things, one type of labour

arrangement - credit-labour tying or *dadon* - in two sets of villages. Rudra wanted to explain why there was a set periodicity of repayment in one area, Illambazar, as opposed to repayment at irregular intervals in the other, Sian. In Sian, individual patron-client ties predominated, whereas, in Illambazar, "village society" underwrote credit-labour tying in that "all labourers as a group [were] at the mercy of the employers of the village as a group" (p104). The study also included contrasts of different types of contracts and wage variations between workers and occupations.

In a later study, Rudra compared labour relations in two villages in an area with developed forces of production (Bardhaman district), with those in four villages in an area of relatively less developed forces of production (Bankura district) (1987). He reached the apparently paradoxical finding as far as the history-as-progress thesis was concerned that relations of production were more backward in the village where the forces of production were more developed. The basis for this conclusion was that different types of *semi-attached* labour arrangements predominated in each. The type that predominated in Bankura, involved a commitment to work for an employer for a well defined short period; in Bardhaman, on the other hand, labourers were more often found in "beck and call" relations under the domination of the employer. Further evidence for Rudra's argument was provided by the greater incidence of old debts in Bardhaman.

Rudra's own surveys in Birbhum district (1982), Bardhaman and Bankura (1987); his major collaborations with Bardhan in large scale surveys of West Bengal and Eastern India as a whole (Bardhan and Rudra 1978, 1981; Rudra and Bardhan, 1983); and earlier work on Punjab (1978) enabled him to speak with as much authority as anybody on the subject of labour relations in South Asia. Nevertheless, many empirical questions provoked by his work remained unanswered by him.

Rudra identified the power exercised by "village society" through "custom" and "taboos" and their effect on labour relations. However, this notion of an ideology applying to all sections of village society omits the important distinctions between the ideologies of different castes, classes and genders (see Kapadia (1990) and Kothari (1991) for evidence on this from other parts of India). It also obscures to some extent the dynamic processes inherent in competition between castes in rural West Bengal (Davis, 1983). These points will be taken up in section 1.5, below.

In the 1982 version of his model, Rudra stated that seasonal labour migration did not affect the long term relations between local employers and labourers (p111). Seasonal migration is also played down in the 1992 version (p406). Dreze and Mukherjee, addressing labour contracts in all India also regarded such migration as separate from the question of isolation in village labour exchange (1987, p23). Thus despite evidence that migration was important both for

labourers and employers, they were able to propose village isolation as a core feature (see section 1.2.6). There is now a large body of literature on labour relations in other areas, which would challenge this view (egs Breman (1985, 1989) on Gujerat; Martinez-Alier (1971) on Southern Spain; Datta (1991) on Bangladesh). Curiously little has been written on this subject for West Bengal (an important exception being Chatterjee, 1991). Rudra's view of the relation between seasonal migration and local labourer-employer relations is examined in Chapter 5. Rudra's analytical separation of employers and labourers as distinct classes, his acknowledgement of the important role of ideology, and his conception of village labour exchange as territorially bounded have improved our capacity to explain diversity in hired labour arrangements. However, his model did not differentiate between labour-sellers by wealth or landholding or by demographic factors such as household size and structure. These variables are at the centre of Hart's analysis of labour arrangements in rural Java, which is summarised in the following section.

What differentiates Hart's approach from those of the other economists reviewed in sections 1.2 and 1.3 is her insistence on prior specification of the particular agro-ecological, economic, social and political structures in which labour exchange takes place. Hart did not set out to prove a general model.

1.4 HART'S FRAMEWORK FOR THE ANALYSIS OF DIVERSE LABOUR ARRANGEMENTS

In her study of labour arrangements in the village of Sukodono in rural Java, Hart set out to account for "the coexistence of a wide variety of different institutional arrangements" (ie *diversity*) (1984, pp55-56). Her method of analysis evolved from Godelier's assertion that knowledge of economic and social structure is a necessary condition for the understanding of the rationality of individual action (Godelier, 1972, p26; cited by Hart, 1978, p10). On the supply side, she differentiated labour selling households according to wealth (in terms of land), which, together with demographic composition (particularly household size and consumer:worker ratio) determined the extent of their reliance on purchased food, and thus the value of time spent earnings income relative to time spent in other activities (Hart, op. cit., p17). On the demand side, employers' political as well as economic agendas strongly influenced their strategy of controlling the labour force by limiting access to privileged labour arrangements (Hart, 1986a).

Hart divided sampled households into three classes according to per capita food consumption implicit in the quantity of land and other assets they controlled and their size and demographic structure. These three asset classes were labelled "large landowning", "small landowning" and "landless". One of the key arguments in her thesis was that

labour selling households had differential marginal rates of substitution between employed work and other activity and behaved differently in response to changes in wage rates or the relative tightness of the labour market. Both small landowning and landless households sold labour to large landowning households. The difference between their patterns of labour-hiring was related to the extent to which they cultivated sufficient rice for household consumption in the slack season (ie to their needs).

The supply curve of *landless* labour households tended to be backward bending - more hours of labour were supplied as the wage rate declined. Hart argued that labour allocation by landless households was based on the need for *household* survival and thus seasonal consumption smoothing⁴⁰. Decisions were taken according to the opportunities available to the household as a whole. Landless women and girls hired out labour outside the village in the lean season, whereas women from small landed households only hired out labour inside the village and for certain tasks⁴¹.

Small landed households entered a relation of "asymmetrical reciprocity" with large landowning households. (This is

⁴⁰This is consistent with Fafchamps' argument that the poorer the group, the higher the individual risk of starvation under non-cooperation and thus the more likely that their behaviour will exhibit solidarity (1992, p150).

⁴¹There is no discussion in "Power, Labor and Livelihood" of the intra-household distribution of power and its effect on the decision making process. In some of Hart's more recent work, she has focused specifically on gender relations (1991, 1992a and b).

similar to Rudra's notion of "unequal mutual dependence", see section 1.3.4). Those labourers who controlled land had access to relatively privileged labour contracts. In Sukodono, access to relatively well paid, high status, though still short duration labour arrangements in the lean season, was found to be connected to the small landowner's willingness to enter a land debt relation with the employer. That is, the small plot of land cultivated by the labourer-debtor would be leased to the employer-creditor at a fixed rate and then share-cropped back by the former for a disadvantageous share. The employer took between three fifths and two thirds of the crop.

Landless households were excluded from these patronage relations. The poor, seeking security of income, delegated one household member to low paid but secure work. The higher paid work accessed by landed men was not of long duration, but took place inside the villages and remuneration per hour of effort was higher. In the neo-classical models of permanent or tied labour reviewed in section 1.2, longer duration contracts always yielded higher utility than casual arrangements, and, in the case of Rao's model, were automatically associated with patronage. Hart's evidence serves as a warning against equating contract duration with privileges.

Large landowners in Sukodono employed small landowning and landless labourers in agricultural production as part of their

accumulation strategies. The terms and conditions available reflected employers' objectives of *labour management* (to ensure worker effort) and *social control* (to bring about worker docility). Employers access to credit and other resources for investment in agriculture and in non agricultural activities outside the village depended partly on their success in gaining the attention and favour of the local bureaucrats in charge of resource allocation. The creation and maintenance of "contacts" was a time-consuming activity and required employers to be able to entrust some agricultural work to their labourers without supervision. Hence the need for labour management and social control. The need for the latter also increased when the government expected the large landowners in each area to manage law and order.

In a paper for the ILO, Hart compared the relationship between agricultural labour arrangements and structural change in Bangladesh with that in Java (1984). Bangladesh and Java offered examples of rice producing agricultures with differing political systems, and different relationships between those systems and rural power structures. In each case employers' accumulation strategies were influenced by their means of gaining access to state-allocated resources to the extent that the types, terms and conditions of labour arrangements varied. In Bangladesh, rather than relying on making and maintaining contacts in the local bureaucracy, large landowners could achieve favourable allocation of resources by building large

clienteles, maximising their local political clout and thus resource allocation.

A privileged tier of workers was deliberately created by agricultural employers in Java to divide the workforce against itself and prevent the formation of a potentially powerful and hostile class. Those in relatively privileged arrangements were motivated by the fear of losing the privileges they had - and landed labourers, who generally came from higher economic and social strata would have had more to fear from the ensuing loss of esteem than others. They had no class affinity with other workers and could thus be expected to supervise them with the employers' interests to the fore. Landless workers were kept docile and hard-working both by their economic vulnerability, which was perpetuated by the segmentation of the labour force, and by their knowledge that they could not get access to privileged employer-employee relations if they resisted.

The essential features of Hart's framework for the analysis of diversity⁴² in labour arrangements are i) differential preferences for income earnings against non-income earning activities among labour-selling households according to assets and demographic composition and ii) the political as well as economic accumulation strategies of employers.

⁴²The framework for the analysis of changes in hired labour arrangements outlined in Hart's book 'Power, Labor and Livelihood' focuses on the relationship between macro political and economic changes on the one hand, and changes in labour arrangements at the micro-level both inside and outside the household on the other (1986a, p9).

Although Hart's framework provides a coherent and attractive foundation for the study of labour arrangements elsewhere, it contains at least one conceptual problem and two field methodology problems. There is an unaddressed conceptual problem with the separation of labour management and social control. Social control is defined as "an attempt to exercise power in *non labor spheres*" (1986c, p190, emphasis added). Hart has not considered that labour management can be a form of social control. Moreover, the desire to prevent the rural poor from behaving disruptively (used by Hart as an illustration of motivations for developing social control) may also be seen as a labour management objective.

Hart used thirty day recall to establish the extent to which each individual employer/labourer hired in/out labour power and in which types of arrangements. Thus she was unable to look closely at intracontractual diversity. The division of work of greater and lesser privilege according to commodities (rice, sugar or fish) rather than types of operation further reduced the fine tuning of the analysis.

Nevertheless, our attempts to characterise the relation between agrarian structure and agricultural growth can benefit greatly from the framework of analysis used by Hart. The investigation and proper specification of the agricultural, ecological, social, economic and political contexts at the village and higher levels and the objective of explaining the empirical data she collected, rather than trying to pin them

to one or other abstract theory, represent advances on much of the other work in this field. Moreover, she tackled the issue of power at a number of levels, without reducing it either to the imperfect structure of markets or to class relations alone. The framework could and should be used in south Asia as a basis for a series of comparable micro and meso level studies of labour arrangements, and their aggregative use in building up a typology of agrarian structures.

1.5 THE SOCIAL EMBEDDEDNESS OF HIRED LABOUR ARRANGEMENTS

"when the economic theorist turns to the general problem of wage determination and labor economics, his voice becomes muted and his speech halting. If he is honest with himself, he must confess to a tremendous amount of uncertainty and self-doubt concerning even the most basic and elementary parts of the subject."

Samuelson (1966, p1557)

Samuelson's confession is appropriate to the problem with which this thesis is concerned. Although there have been huge advances in economic theory since the mid-1950s, when the above passage was written, we have not so far come across an economic theory or body of theories, which is capable of explaining the existence and coexistence of diverse institutional arrangements for hired labour in Indian agriculture.

In the last few years, there has been increasing dialogue between economics on the one hand and the disciplines of sociology and social anthropology on the other. This has taken the form of multidisciplinary projects with a given substantive focus (eg, Bardhan, 1989a; Himmelstrand, 1992) as well as attempts at interdisciplinary research by individual authors (Granovetter, 1981, 1985; Platteau, 1991; Kabeer, 1991; Folbre, 1994). The economist Lipton recently called for the "grounding of micro-economics in an anthropologically and politically researched understanding of intergroup, inter-role processes, not only in models of expected utility maximization" (1992, p1545).

Rudra has produced a large amount of evidence to demonstrate that labour arrangements are embedded in personalised relations and bounded by "customs" and "taboos", which are maintained by the workings of "village society". Hart, meanwhile, has shown the importance of properly specifying the agro-ecological, social, economic and political context at the village and higher levels, prior to attempting to explain the diversity of labour arrangements. Her work also suggests that the behaviour of labour-selling households in any given context is unlikely to be uniform. In Hart's framework, labour deployment by a labour-selling household was differentiated by both needs and access. Needs were primarily economic and determined by the capability to produce rice for household consumption, a function of land-controlled, household size and worker:dependent ratio. Access depended on

the prevailing gender division of labour and the employers' labour hiring strategies.

Both Hart's and Rudra's methods are consistent with Granovetter's assertion that "economic institutions do not emerge automatically in response to economic needs. Rather they are constructed by individuals whose action is both facilitated and constrained by the structure and resources available in the social networks in which they are embedded" (Granovetter, 1991, p78).

In his work on the embeddedness of tenurial relations, Herring (1985) insists that an understanding of the class structure is prior to that of personalised relations because it is the inequality brought about by that structure which leads dominated parties to seek, say, subsistence guarantees via a patron. However, Herring does not explain the root of the "'legitimizing ideologies'", in which he asserts production relations are also embedded (op. cit., p37).

Neither Hart's analytical framework, nor Rudra's theory of the self-contained village society endogenise boundaries created by such 'legitimizing ideologies'. By combining evidence from anthropological studies, with those of detailed economic studies, we can overcome this stumbling block to a fuller understanding of the social embeddedness of labour arrangements.

The anthropologist Breman has contributed one of the most important contemporary studies of Indian rural labour arrangements (1985). He identifies differential labour supply rationales, which could be split into Hart's analytical categories of "needs" and "access". Breman's rationales are both social and economic.

The assumption made by most of the orthodox economic models considered in section 1.2 was that labourers strictly preferred attached relations. Eswaran and Kotwal acknowledged the disutility of commitment to a single employer, but assumed that this was outweighed by the total annual consumption of the permanent worker over the casual worker. In Hart's study too, patronage was a privilege, available to a select minority of workers.

Breman's study, on the contrary, found that some labourers prefer to take risks to maximise the use of wage rises attached to different tasks in different seasons. Such labourers avoided the advance sale of labour⁴³. The greater freedom and mobility of seeking work in changing locations was preferred to waiting for an employer's call. Moreover, in his comparison of the annual incomes of different types of labourer, Breman found that labourers in committed arrangements did not necessarily achieve higher annual incomes

⁴³Interestingly, labourers in J.Harriss' West Bengal study generally expressed preference for shorter duration arrangements because it enabled them to take advances from more than one employer and spread their indebtedness. Dependence was not favoured, although many did not manage to avoid it (J. Harriss, 1983).

than other labourers, partly because of the lower daily remuneration, but also because there was more unemployment of such labourers in the lean season than is commonly assumed.

Those labourers who did prefer longer commitments, like the poorer tenants in Herring's study, typically had a lower ratio of workers to dependents in the household, sickness of one or more household members, and a lack of youth and vigour. Moreover, such preference was also related to the availability of non agricultural employment opportunities close to the village.

Many studies of rural labour arrangements in south Asia and elsewhere suggest that access to certain types of labour arrangement, or involvement in certain agricultural operations is constrained by ideologies regarding the appropriateness of such work, often based on caste and gender, and on spatial identities (eg K. Bardhan, 1984; Beteille, 1974; Hart, 1986a; J. Harriss, 1983, p24). Brief illustrations of how such ideologies influence labour arrangements are given below.

Caste:

Davis has shown how interpersonal and intergroup relations in a Bengali Hindu village including labour arrangements are informed by concern with rank, which he defined as "relative highness or lowness" (p1). The pervasive vertical organisation of Bengali society sites individuals in three

ranking systems simultaneously: *des*, *jati*, and *lok*. *Des* is a system of spatial ranking, whereby, depending on whom he is talking to, an individual identifies with his village, region, kingdom⁴⁴ or nation. Within each *des*, there is a system of social ranks or *jati*. This too is a relative concept, and may refer to sex, family, descent group, caste or even category of caste⁴⁵. *Lok*, which literally means person or people, is used by Davis to refer to an individual's rank according to life-cycle stage.

According to Davis, the caste system is organic, continually in transition. "Recurrent competitions between castes are consistent with a transformational perspective in which the defining features and rank of a caste are continually open to change and thus also continually open to challenge" (p134). Davis shows how in the village he studied, a low caste group used such recurrent competitions to raise their *jati* ranking⁴⁶. When the formerly landless Bagdi *jati* acquired land, they began to hire out labour only as a supplement to their agricultural income. The response of their erstwhile employers was to hire workers from far afield, who had previously come to the village as seasonal migrant workers.

⁴⁴"Kingdom" refers to the territories formerly controlled by local *raja*, including those known to the authorities as *zamindars* (see Greenough, 1982, pp19-20).

⁴⁵According to Quigley, "[t]he sense of *jati* is of those people who are in some fundamental way alike because of their common origins, and fundamentally different from those who do not share these origins"...."*Jati* is, of the essence, a relative term" (1993, pp4-5).

⁴⁶Davis attributes the term Sanskritization, by which he defines this process, to Srinivas (1966).

These Lodha and Munda (tribal) groups were now invited to settle permanently.

In caste Hindu ideology, the status of manual work is low. Employed manual work is lower still. By moving away from their dependence on such employment the Bagdi jati were increasing their ranking. Nevertheless, although such a change in occupation, along with increased independence, was necessary for a claim to higher rank, it was not sufficient. In order to have their new status recognised, they had to pledge electoral support for the higher caste Sadgops in local council elections.

In the village studied in the 1950s by T. K. Basu, Bagdis had the highest status of all the 'untouchable' castes and unlike others were entitled to the services of the village barbers and midwives. Evidence of the Bagdis' aspirations in terms of social ranking was provided by their reference to themselves as 'Bagra-Kshatriyas' in order that Kshatriya origin might be attributed to them by others (Basu, 1962, p28).

Gender:

In a study of labour relations in Bardoli, Gujerat, Breman found that household labour, especially that of women, was withdrawn both from agricultural and domestic work as wealth increased (pp263-4 and 272-3). For male cultivators in the Bardoli area in Gujerat, higher status could be gained by

excluding women from the same household from field labour. On a similarly ideological basis, labour-selling households anxious to increase their status could restrict hiring out to males. Women engaged in manual labour outside the homestead, whether paid or unpaid, lowered the status of their households (in the case of caste Hindus and those aspiring to be considered caste Hindus) because they came under the gaze of males from outside their affinal kin and carried out drudgery laden work. Women in field-located employment also came under the authority of a male (usually) employer. Gender and caste ideologies interact - differentiation from lower castes may be signalled by differences not only between work inside and outside a homestead but also between own household work and working for others (K. Bardhan, 1984, p188)⁴⁷.

Locality and settlement history:

Some studies have emphasised territoriality as an explanation for why one labourer or group of labourers is hired rather than another - distinguishing both labourers' residence areas and the length of time they or their households have been settled there. In Hart's study of Java for example, landless labourers did not normally have access to patronage relations. However, landless labourers from a particular locality, who retained a special relationship with employers because of

⁴⁷ The notion of field employment decreasing a woman's and her household's status runs counter to that strand of literature which focuses on the status (and economic power) enhancing effect of income earning for women (see references in Mayoux, 1982).

their relatively early settlement in the village, gained access to "privileged" fish pond labour (1986a, pp175-7). Davis described how, during a labour dispute in his study village, employers attempted to end strike action by a group of workers by appealing to the strikers' solidarity with their *des* (in this case village) (*op cit*, pp203-206). The history of particular inter-group relations, where a group is defined by the location of its residence, together with the common spatial identity of individuals and households from the same hamlet or village may interact with identity with *jati* or *gender*⁴⁸.

The discussion in this section suggests that hired labour arrangements are embedded in gender and caste ideologies and in spatial identities as well as in the personalized dependency relations arising from structural inequality. Of course such factors have long been stressed by sociologists. Godelier demands that economic and social structure have to be set out before behaviour can be analyzed (1972). Giddens' theory of structuration emphasises the two way causal relations between social structure and individual agency. Individual action is both constrained and enabled by the social structure. Yet structure itself is not unchanging but reproduced and developed by the individual's actions. "Social systems involve regularised relations of *interdependence* between individuals or groups, that can best be analyzed as

⁴⁸In her study of women labourers in a village in Tamil Nadu, Kapadia showed that among certain groups "localisation of identity" dominated caste identity (1993, p304).

recurrent social practices" (Giddens, 1979, pp65-66; cited by de Haan, forthcoming, Chapter 1)⁴⁹.

Social embeddedness has not gone altogether unnoticed by orthodox economists, either. Two economists who have attempted to construct complex multiple rationales for the outcomes of the interaction of large numbers of agents have been forced to conclude that much depends on the "customs" and "society" where the activities take place (Arrow, 1985, cited by Bartlett, p109, n7; Kreps, 1990, p772). Kreps admits that economic theory has not taken on board the social embeddedness of "economic" actions (loc cit). We "cannot do an adequate job studying firms and other institutions, and especially the origin and evolution of these institutions, unless and until we reformulate and refine the models we have of individual behaviour" (p14).

⁴⁹Note how interdependence is a consistent theme in the economics of rural labour arrangements, from the neo-classical models of risk-sharing, through Rudra's central concept of unequal mutual dependence to Hart's notion of asymmetric reciprocity between small and large landowners in Sukodono. J. Harriss builds up an excellent discussion of patrons and clients as mutually dependent and yet reinforcing and legitimating inequality through patronage relations (1982).

1.6 HOW THE STUDY PROCEEDS FROM HERE

"Those who are lost in the desert are not entitled to assume, without more ado, that the direction in which they happen to be travelling is the shortest, if not the only, road to safety."

Wootton, 1938, p68

This review of the literature has demonstrated how neither 'new institutional economics' (NIE) nor Marxian approaches have succeeded in explaining the existence or coexistence of diverse hired labour arrangements in Indian agriculture. In particular, the embeddedness of such arrangements in the land control structure (absent in NIE), in ideologies of gender and caste and in spatial identities (absent in both NIE and Marxian economics) has been either downplayed or ignored.

The main usefulness of Hart's framework to our research question lies in its identification of the differential needs of labour selling households according to the extent of their dependence on food purchases. Thus the quantity of cultivable land controlled, weighted by household size and worker:dependent ratio, informs the deployment of household members to particular types of labour arrangement. In the present study I follow Hart in examining the relationship between household asset class, size and structure and the types of labour arrangement entered by individual members of

that household. It will be hypothesised that individuals from more vulnerable households (indicated by low asset class and/or small size and/or a high proportion of dependents to workers) enter hired labour arrangements offering lower daily earnings.

Hart also argued that more vulnerable households had less access to privileged patron-client relations. Other evidence suggests that entering a patron-client tie is not necessarily considered a privilege in relation to selling labour to a number of different employers and keeping options open for other income earning activities, including seasonal migration. For certain workers, mobility may be highly valued and commitment to one employer associated with low status. Such commitment would then be made only by poorer individuals and households, who, lacking resources for lean season survival, would sacrifice both their 'job mobility' and maximisation of annual income for short term economic security. It will therefore be hypothesised that it is individuals from more vulnerable households (defined as above) who enter hired labour arrangements involving commitment of labour to a particular employer.

Hart's concept of access will be adapted to refer to the enabling and constraining roles of gender and caste ideologies in determining which groups are excluded from which labour arrangements. In particular, it will be hypothesised that labour selling individuals and households exclude themselves

from certain arrangements according to the household's perceived position in the caste hierarchy and according to the gender of the individual labourer.

Age also constrains spatial mobility and limits earnings from piece rate arrangements for physiological reasons. It will be hypothesised that very young and very old workers will also be excluded from certain arrangements, mainly by the employer household on grounds of productivity.

Hart showed how descendants of the earliest labourer households to settle in Sukodono gained access to "privileged" arrangements despite their low asset class position. Rudra and Rao emphasised the development of personalised relations between groups as well as individuals within a locality. It will be hypothesised that certain groups of labourers identified by their residence locality are implicitly obliged to sell labour to particular groups of employers. Further, the terms and conditions and types of arrangements entered by recently settled labourers with longer established employers, as well as by recently settled employers with longer established labourers, will be relatively disadvantageous to the recent settlers.

The main source of data for this analysis will be the daily records kept by sampled labourers and employers in two West Bengal localities over two seasons in 1991-92 (see the description of methods of data collection and analysis in

chapter two). It will be reported together with descriptions of the study villages and the range of indigenous types of labour arrangement in each in the third and fourth chapters.

Orthodox models of the coexistence of diverse contractual forms retain the concept of 'casual' labour exchange in a spot market as one such form. Further, individuals and even households are classified by the types of arrangements they engage in and arrangement types are associated by Eswaran and Kotwal, Binswanger and Rosenzweig, and Dreze and Mukherjee with particular agricultural activities. In this thesis, it will be hypothesised that:

- there are 'spot markets' for 'casual' labour;
- individuals and households can be unambiguously classified by their main occupation or source of income; and
- categories of labour arrangement correspond to particular types of work.

Despite their internal inconsistency and more general limitations, the models reviewed in section 1.2 put forward plausible rationales (recruitment, supervision and motivation costs; information asymmetries; and risk-sharing) for the existence of particular hired labour arrangements which will be drawn on as appropriate to enrich the analysis of the embeddedness of hired labour arrangements. The models raised other important analytical issues, which will also be examined

in chapters three and four⁵⁰. I will attempt to account for differences in worker remuneration within arrangement type, including variation in the form and timing of payment as well as earnings. This issue is partly addressed in the first hypothesis at the start of this section: that more vulnerable labour households enter arrangements with lower daily earnings. To the extent that hired labour arrangements are negotiated and/or contested, relative bargaining power (defined as the capacity of labourers or employers to influence these arrangements) is partly contingent on the relation between the quantities of labour demanded and supplied. It will therefore be hypothesised that differences in remuneration can be explained partly in terms of seasonal shifts in the quantities of labour supplied and demanded for particular activities.

Particular attention will be paid to the seasonal migration of rural labourers, which is hardly mentioned in Hart's work or in the abstract models reviewed. Dreze and Mukherjee and Rudra assert that seasonally migrant labour is separate from intervillage labour exchange, which is very rare. Rudra argues that seasonal migration has no effect on local labourer:employer relations (see section 1.3.3). In one of the study villages, the hiring of labourers from adjacent villages occurs in the peak season. We will compare the types

⁵⁰At the end of section 1.2.7 these issues were identified as differential remuneration within a particular type of arrangement and the possibility of correspondence between type of agricultural operation and type of labour arrangement.

of arrangements they have access to with those to which local labourers have access and the respective remuneration. The differences in remuneration between migrant labourers and non-migrant labourers in the source area and between migrant and local labourers in the destination area will also be compared and explained.

In the Gangetic plain of south central West Bengal, cultivators depend on the employment of migrant labourers. In turn, many households to the west on the Chottanagpur plateau depend on earnings from seasonal migration. This has been largely neglected in all the major studies of agricultural labour in West Bengal (including those by Bardhan and Rudra).

Because the central aim of the thesis is to explain the coexistence of diverse types of hired labour arrangement and because of the importance of seasonal labour migration in the areas selected for study, the fifth chapter focuses on describing and explaining that migration. Two major strands of migration literature are briefly reviewed - one emphasizing the role of individual migrants' choices, the other the structures which enable and constrain those choices. On the basis of this review, it is hypothesised that:

i) the pattern and flow of seasonal migration, while partly explained by earnings differentials, are embedded in local agrarian structures, in ideologies of gender and caste and in spatial identities;

- ii) the migration of the poorest is more likely to be motivated by subsistence needs than by an expectation of accumulation; and
- iii) the migration possibility increases labourers' bargaining power in the source village and employers' bargaining power in the destination village.

For most labour-selling households in West Bengal, hiring out labour is not the sole source of livelihood. Other activities include own cultivation, livestock rearing, gathering raw materials and small-scale manufacture for use or sale. More fundamental than any of these are the daily activities necessary to reproduce the household's level of living, such as food preparation, child-care, fetching water and cleaning. Such 'reproductive' activities are prior to 'productive' work, whether paid or unwaged, because they produce 'productive' labour.

Explanations of why particular individuals from different types of household hire out labour and the types of arrangement they enter thus also require an understanding of patterns of deployment of labour between paid and unwaged work, whether 'productive' or 'reproductive'. Although there are many empirical studies of intra-household labour allocation in rural south Asia, to my knowledge none have attempted to analyse households' deployment of labour to different types of labour arrangement and to unwaged work simultaneously.

Chapter six examines how patterns of labour deployment impact on the types of hired labour arrangements entered by members of labour-selling households. Economic explanations of the logic behind household labour deployment, including New Home Economics (NHE), bargaining theory, radical feminist and household relations approaches are briefly reviewed. The household relations approaches suggest that the deployment patterns of labour-selling households vary for both ideological and material reasons along axes of wealth, gender, caste and ethnicity.

It is hypothesised that:

- i) the logic of deployment of individual labour power within households is embedded in relations between the genders and generations, in expected kinship roles and in expected behaviour at the community level associated with wealth and *jati*;
- ii) labour supply to agriculture - including the supply to particular labour arrangements - is contingent (at least to some extent) on the deployment of labour within the household; and
- iii) by engaging in unwaged productive activities, labour-selling households generate the power to resist decreases in remuneration.

Data gathered through an intensive activity analysis are drawn on in the chapter to highlight the different sets of 'choices' faced by landless as opposed to landed households. It also

lends support to the idea that gender ideologies are spatially contingent and impact both on women and men.

In chapter seven, the main findings of the study are summarised. A new agenda for research on hired labour arrangements in India is called for, involving more, careful, micro level studies so that a typology of socio-economic, political and agroecological contexts can be developed. Such studies need to explore further the logic of deployment of individuals between paid and unwaged work. However, a study of the relation between contractual change on the one hand and macro political and economic developments in West Bengal on the other will have to await the compilation of clearer trends in rural wages and employment (including seasonal migration) in the state, which was outside the scope of the current project.

CHAPTER TWO: METHODS FOR THE ANALYSIS OF DIVERSE HIRED LABOUR ARRANGEMENTS

2.1 INTRODUCTION

In this chapter the methods of data collection and analysis used in the empirical sections of this thesis are set out. First the overall argument of the thesis is restated and the hypotheses derived from the literature review are summarised, in order to keep clearly visible the connection between the substantive objectives of the thesis and the methods used. In the second section, the process of data collection is formally described, and the strengths and limitations of the data are discussed. The quality of the data is shown in the third section to have specific implications for the choice of methods of analysis.

There is no single 'market' for rural labour in India. The theories reviewed in Chapter 1 concentrated on explaining the coexistence of different types of hired labour arrangement within stylised villages characterised by high barriers to labour movement. In chapters three and four, I will describe the main types of hired labour arrangement in two localities in West Bengal and attempt to explain their coexistence via analysis of their embeddedness in the structure of landholdings, in gender and caste ideologies and in spatial identities. My main argument will be that 'new institutional economics' (NIE) theories are unable to explain contractual

diversity because their parameters do not include local economic, social, agroecological and political variation. In order to improve our understanding of rural labour arrangements further, we have to include such variation in the analysis. Yet neither the simple explanations for contractual diversity based on variations in the quantities of labour demanded and supplied¹, nor the rationales of the 'new institutional economics' should be rejected outright.

NIE attempted to explain the existence of 'tied' labour arrangements and the coexistence of 'tied' and 'casual' arrangements as second best responses to missing or imperfect markets for information (eg regarding workers' effort), to risk (eg to employers over the supply of peak season labour and to workers over lean season subsistence) and to the transaction costs (eg supervision costs, recruitment costs) arising from either imperfect or incomplete information, from risk, or from combinations of the three. Dreze and Mukherjee identified involuntary unemployment and a single village wage rate (for each gender, given season and task) as core features of casual labour exchange in rural India.

The NIE theories thus based explanations on a number of rationales including i) individual employer responses to seasonally high recruitment costs and to the problems of

¹By analysing specific economic and social structures, in which the exchange of agricultural labour takes place, the thesis shows that the demand for and supply of labour are contingent on such structures. It thus contributes to our understanding of what lies behind supply and demand, rather than contradicting supply and demand explanations.

motivating and supervising labour, and ii) joint employer-labourer responses to the risks of lean season subsistence crises for labourers and peak season supply shortages for employers. Throughout the analysis of the embeddedness of hired labour arrangements in chapters three and four, reference is made back to appropriate NIE rationales. Their relevance to the explanation of the coexistence of diverse hired labour arrangements in the context of particular economic and social structures is commented on.

At the end of the last chapter it was hypothesised that

i) poorer labour-selling households would tend to enter arrangements with relatively low earnings and/or commitment to a particular employer and on worse terms than less poor households;

ii) smaller households and those with a low ratio of workers to dependents would tend to exchange labour via arrangements with relatively low earnings and/or commitment to a particular employer and on worse terms than others;

iii) individuals and households would exclude themselves from certain arrangements according to their perceived position in the caste hierarchy and an individual's gender;

iv) territoriality operated between neighbourhoods within a locality, such that labourers from a particular neighbourhood were obliged to offer their labour on a priority basis to specific employers;

v) terms and conditions of labour arrangements entered by recently settled employer and labourer households were

relatively disadvantageous compared to those entered by longer established households;

vi) a 'spot market' for casual labour existed, "the casual labour market" being the "most predominant form of market in rural south Asia" (Osmani, 1990, p19);

vii) individuals and households could be unambiguously classified by their main occupation or source of income;

viii) types of labour arrangement corresponded to particular types of work; and

ix) the relative bargaining power of labourers increased in the peak season when the quantity of labour demanded rose relative to that supplied.

2.2 THE PROCESS OF DATA COLLECTION

2.2.1 Introduction

To examine such hypotheses it is necessary to carry out intensive micro studies. Labour arrangements need to be classified as far as possible in local terms, which can only be documented and understood through continuous periods of residence among the actors concerned. Residence is also required for the gathering of data (through observation and daily interaction) on other economic and social relationships between individuals and households. A combination of detailed and precise quantitative data with a sensitive approach to qualitative data gathering was thus called for in this study.

As each village in south Asia is to some extent unique, generalisations for the whole subcontinent cannot be made from isolated studies of single villages. It is important therefore to ensure that the village(s) selected is (are) not untypical of the surrounding area(s), and that extrapolation from the results of empirical analysis is carried out with caution. If findings from two or more villages are to be used to draw inferences about aspects of economic and social relations over a wider area, that area or region should have a clearly distinguishable identity. The State of West Bengal has such an identity based on language and its political separation from Bangladesh.

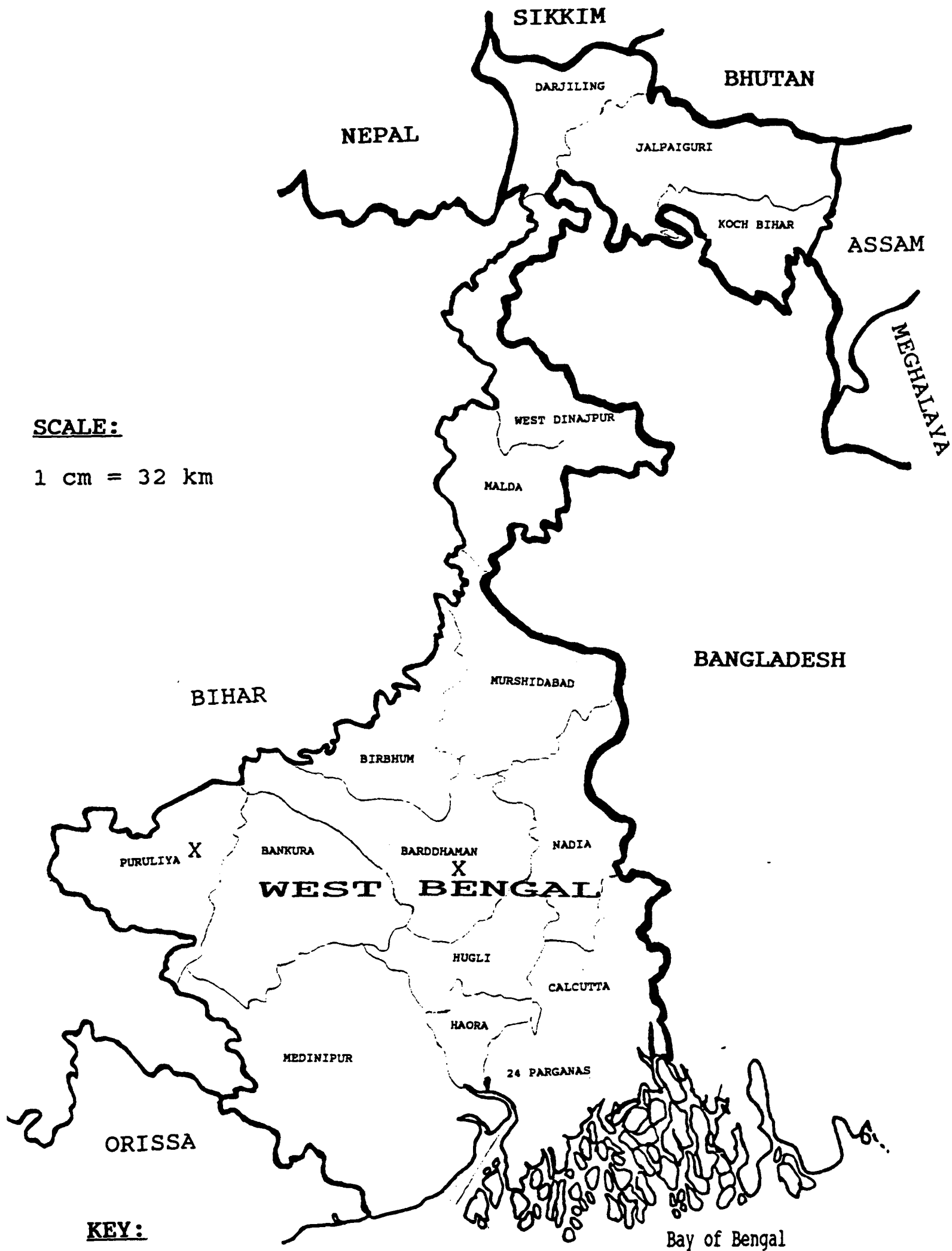
2.2.2 Selection of Localities and Living Arrangements

Bose found the agroecological regions of prepartition Bengal (present day West Bengal and Bangladesh) to be characterised by specific agrarian structures (1986). It would thus be foolhardy to attempt to extrapolate explanations for the existence and coexistence of diverse hired labour arrangements in West Bengal from a single microstudy. At the planning stage it was decided that localities to some extent representative of at least two of West Bengal's regions should be included. While the study would focus chiefly on analysing the diversity of labour arrangements *within* each locality, the differences in agricultural systems and social and economic relations between the two would act as a check on excessive generalisation from the village to the State level.

It was reasonable to expect that some of the regional diversity of labour arrangements would be rooted in agroecological variation and associated differences in patterns of labour demand. The selection of one locality in Purulia District, with the porous red soil typical of the largely unirrigated Chottanagpur Plateau, and the other from an irrigated Gangetic plain area in Bardhaman District (see Maps 1a and 1b) was also intended to provide contrasting observations. A further reason for the selection of the two study areas was the large scale rural-rural seasonal migration I observed during previous work in Purulia District. Seasonal migration was clearly very important for livelihoods in the monocropped area yet migration was underemphasised in the literature on rural labour in West Bengal (see Chapter 5, sections 5.1 and 5.2), I decided to include migrant labour arrangements in my study of diversity. Thus a seasonal migrants' destination locality was sought². These are not studies of isolated labour exchange systems enclosed behind unscalable village walls. Each is vitally served by the large movements of labour across village, district and state boundaries.

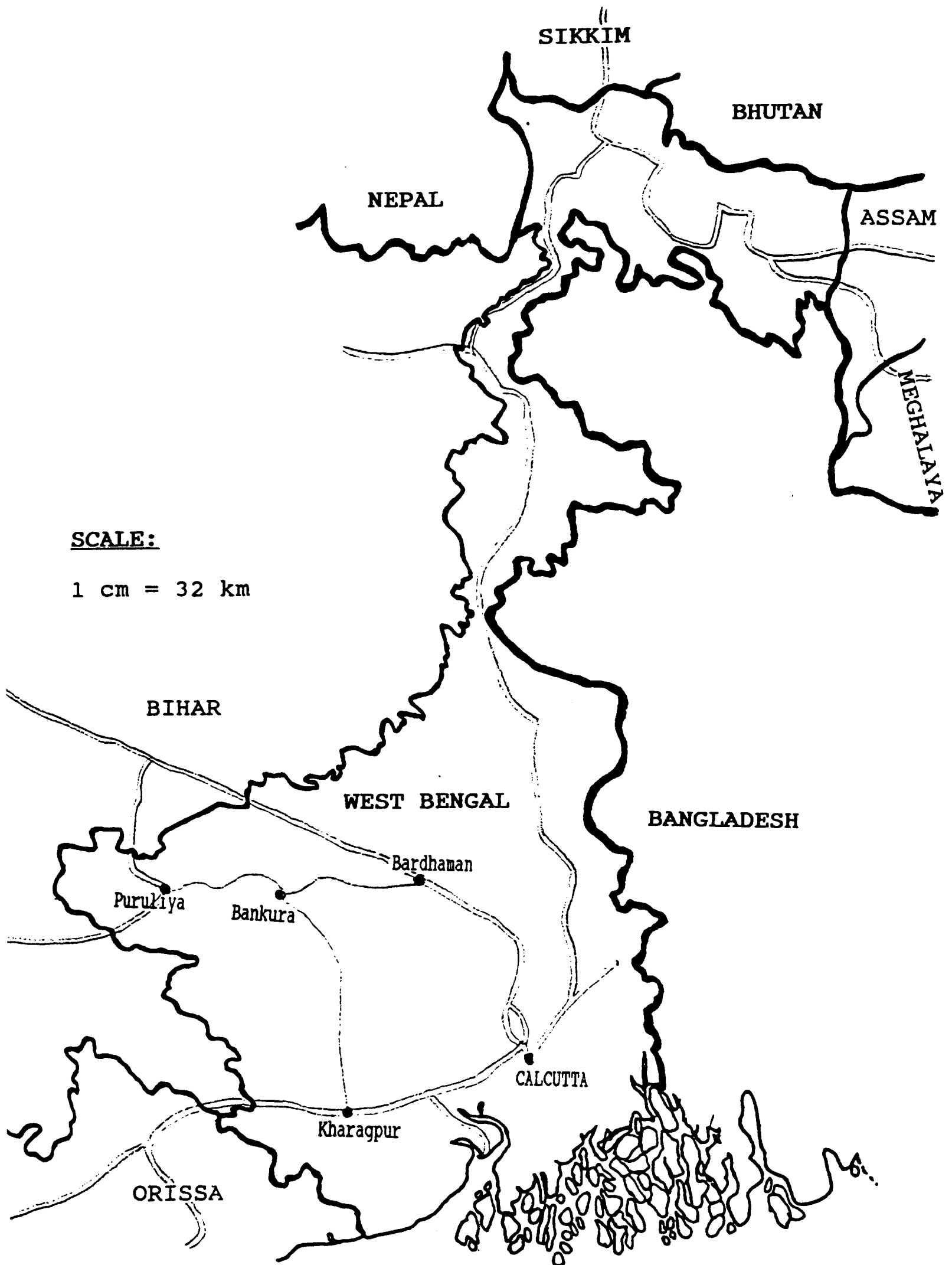
²In selecting agroecologically contrasting localities, the intention was not to try to use cross sectional data to draw out conclusions about changes in agrarian structure. Other studies have indicated in West Bengal and elsewhere that, contrary to the teleological perspective of orthodox Marxism, there is no necessary correspondence between development of the forces of production and the degree to which agricultural workers are 'free' to sell labour to any employer or 'free' from the means of production (Rudra, 1987; Bhalla, 1976).

MAP 1a: LOCATION OF THE STUDY LOCALITIES



Adapted from An Atlas of India, Delhi: Oxford University Press, 1990

MAP 1b: STUDY AREA - MAIN ROADS AND TOWNS



Adapted from An Atlas of India, Delhi: Oxford University Press, 1990

Between January 1989 and June 1990 I had spent periods of three months in each of three east Indian villages working on the evaluation of a large externally funded agricultural extension project. From early January to late March 1990 and again for a week in May, I lived in a village in Purulia district, West Bengal, with co-evaluator Kirat Randhawa and research assistant Arup Das. The main economic activity in the village, as in almost all of the surrounding villages, was the cultivation of a single crop of unirrigated rice. Towards the end of this residence period, it was possible to plan a pilot study for research into diverse hired labour arrangements³. To analyse a nexus of exchange, we realised it would be necessary to expand the scope of the study beyond the boundaries of the village to include adjacent areas from which labour was hired in and/or to which labour was hired out. Thus in this thesis, the term "locality" is preferred to "village", where locality refers to a locally understood nexus of labour exchange. The boundaries of each "locality" are nevertheless porous, especially for the large number of seasonally migrant labourers.

The selection of the locality in Purulia District was therefore almost accidental. It had been chosen (from among other areas of rainfed agriculture) for the evaluation study because of the availability of accommodation in an unused

³The focus of the extension project was to encourage the adoption of high yielding varieties of seeds and chemical fertilizers. The evaluation did not reveal any major changes in agricultural production, which might have made the village untypical of the surrounding area.

government-constructed brick room. Because the locality was not socioeconomically nor agroecologically untypical of the surrounding area, it was decided after negotiation with local political leaders that a year-long pilot study for the present research project would be set up there.

The second locality was to be selected in one of the areas of Bardhaman District, which seasonal migrants from the Purulia locality reported having been employed in. In June 1991, with the help of the local office of the Communist Party of India (Marxist) (CPI(M)) (the ruling party in West Bengal State) and the Agro- Economic Research Centre at Viswa Bharati, a number of blocks were identified as being suitable on the basis of their apparently dynamic agriculture and the inflow of migrant labour. Over a period of a week, visits were made to several villages on the suggestion of the block level authorities of the CPI(M). The locality eventually selected in Bardhaman District satisfied the criteria of being an almost entirely irrigated and double cropped area, socially mixed (both according to religion and caste) and being regularly inundated with seasonal migrants, especially for harvesting and transplanting paddy.

From June 1991 to March 1992, living arrangements were established in both the Purulia and Bardhaman study localities. Because of the short period available, the methods of data collection (described below) and the difficulty inherent for outsiders in trying to analyse social and

economic relations, it was considered necessary to set up residence in both localities simultaneously and to maintain a continuous presence. Thus two research assistants were employed, one to live in each locality, while I alternated fortnightly between the two. In January 1992, the research assistants came to Santiniketan to begin coding and entering the data, which was entered onto a database by Kirat Randhawa. My itinerary, which had previously included the occasional weekend in Santiniketan, now became truly triangular, so that I could continue the field study and supervise the data collation process.

When I had returned to the Purulia locality in July 1991, I had been given access to the same room I had occupied the previous year. Here, together with Paramita Bhattacharyya, who acted as research assistant and interpreter (until my Bengali improved), I set up home and office. A man was employed to cook our meals, selected by the elected representative of the village on the village council (Gram Panchayat). The position of the building, outside any particular neighbourhood but well within the locality, meant that we were able to develop good rapport with employers and labourers of all castes.

In the Bardhaman locality I was a complete stranger. Together with Khushi Dasgupta, who worked as a research assistant, I stayed in the house of a wealthy employer - also a local political leader. As a result, it was much harder to appear

impartial here. Not all labourers in the neighbourhood where we stayed were willing to talk openly. However, in other parts of the locality we were able to establish better rapport with labourers than employers. This was due, in part, to historical rivalries between large employers. Living with one inevitably raised the suspicions of others.

On arrival in each locality, I was able quickly to catch up on village events from Khushi and Paramita, although in my attempt to study two localities simultaneously I sacrificed the detailed knowledge which a continuous stay in a single village might have provided. In October 1993, the close rapport developed by both research assistants was still evident, when Khushi and I returned to the Bardhaman locality and Paramita and I travelled to the Purulia locality. In Bardhaman we stayed in the same employer's house, where we were welcomed as family members. In Purulia, I stayed in an employer's house, and Paramita visited for just one day. On both fieldwork trips my ability to converse in Bengali, though limited, was essential. Although when Khushi and Paramita were not present I sometimes travelled to one of the localities with another interpreter (Arup Das, Sudip Ghosh or Surajit Adhikari), I also visited and conducted interviews alone.

In this thesis an explicit attempt has been made to use indigenous categories to minimize the 'bias' inherent in the uncritical use of 'outsiders' constructs. Study village

residents participated actively in the data collection process. Moreover, painstaking efforts were made to enable and encourage labourers and employers to criticize, reflect on and change our (Khushi, Paramita and my) constructions of hired labour arrangements.

Social science fieldwork, especially that which involves residence of the researcher(s) among the researched inevitably produces 'outputs' which reflect the particular perspectives of both parties. Moreover, it has been argued that the relationship between the researcher and the researched leaves neither unchanged (Long, 1992, p6).

As a young, white, educated, British male and as a person whose job was to collect information about other people, I was undoubtedly an 'outsider'. Perceptions of me were neither uniform nor unchanging. When I had arrived in the Purulia locality first in January 1990 in an extension project jeep, I was verbally abused on the basis of my nationality for connections to the British Raj. Because my arrival in the Bardhaman locality had been mediated by the ruling party in the State legislature, which was also dominant in the locality, I was able to begin work there with greater legitimacy. Rather than being in accommodation away from other residences as in the Purulia locality, I became a member of an extended family and was addressed by younger members either as paternal uncle or elder brother. As my Bengali

improved, so did the candour of my closest informants and many of my other relationships with people in both localities.

Khushi and Paramita, both educated, urban, Bengali women, were also treated as outsiders. Their 'outsiderhood' differed from each other's, however, on the basis of age - Khushi was in her forties, Paramita in her twenties. They also differed from mine on the grounds of gender, nationality and mother tongue. Although I listened and talked to both women and men throughout the fieldwork, my gender was usually a disadvantage in talking to young women. Because of their command of language and their continuous presences in their respective localities, Khushi and Paramita did not experience a parallel problem with men. One of them, despite being high caste herself, preferred to interact with low caste ('untouchable' and *adivasi*) than caste Hindu informants because of her political identification with the former. This had no effect on the findings of the study. We were all still outsiders by the time we left the two localities.

2.2.3 Methods of Data Collection

The methods used to collect data included formal survey techniques and anthropological tools of observation (mainly non-participant). Before describing individual methods and the strengths and limitations of the data, it is necessary to explain some initial conceptual distinctions. First in each locality a division was made between those hiring in and those

hiring out manual labour⁴. Earlier evidence suggested that attempts to classify households into narrower bands corresponding to specific production relations would be counterproductive as labourers, share croppers and "poor peasants" were often the same people (Banaji, 1990, p297). Rudra advocated the same division on the grounds that village society could be divided into two classes: those with very limited access to the means of production, who live by selling their labour; and those, who "derive income by appropriating a surplus out of the use values produced by labourers" (1992, p403).

A further contrast was provided by the selection of one 'lean' and one 'peak' season of agricultural employment (following Hart, 1986a). This seasonality variable enables the study to examine changes in arrangements arising from variations in relative bargaining power within the same village (see hypothesis ix) above).

Daily Employment Records:

The main source of data used to describe the diversity in hired labour arrangements is the set of approximately 5400 detailed daily records kept by 92 households in the two localities over the two seasons in August - September (lean

⁴Very few households in each village neither hired in nor hired out agricultural labour and few did both. Where a household both hired in labour and hired it out, they were placed in both groups. This applied to two sample households in each locality.

season) and December - January (peak season) 1991-92. The households⁵ were selected by a stratified random sample⁶ of all households resident in the village for at least one year. Separate forms were provided for each household for about 30 days in each season. Households hiring in labour completed details of arrangements with each labourer hired in, to include hours, type and location of the work; name, residence, age and sex of the labourer; and amount, form and timing of the payment. Labourer households provided details of the arrangement entered into by each individual in the household who hired out their labour on that day.

In each neighbourhood of the localities, local enumerators were hired to assist those who could not read or write sufficiently well to complete the records. The enumerators were also responsible for encouraging all sampled households in their neighbourhood to fill the forms in promptly.

Base Line Survey:

The daily records were complemented by a base line survey of the land owned, leased in and leased out by sampled households

⁵A household is defined here as a person or group of persons whose food is prepared on the same hearth.

⁶The sample was stratified by wealth rank. Three key informants in each locality were used to place a complete list of village households into ranked groups on the basis of wealth (see Grandin, 1988, for details of this method). Random samples were then taken from each group. The main advantage of this method is that it avoids the need for a full census at the start of the study, which can alienate respondents and is very time-consuming. Wealth-ranking is also useful if the village economy is diversified to the extent that occupations or class groups generate a large number of categories.

as well as other assets and demographic data on all household members. Each household was given an asset ranking based on an index combining the value of any land they owned, rented in or rented out (weighted for land productivity and ownership status), the value of all livestock owned and a fixed number of selected other assets⁷. The daily record proformae and the base line survey questionnaire with asset checklists for each village are given in Appendix 1.

The base line survey was carried out after we had resided in the localities for five months. This was because we were aware that some of the questions concerned matters on which people are often reticent, such as land and livestock holdings. Because we waited until we had won a certain amount of trust regarding our motives, the quality of the base line was increased.

Pilot Study:

At the end of the evaluation work in the Purulia locality in May 1990, 12 households were purposively selected for a pilot activity analysis to represent as far as possible different levels of wealth and social rank. The aim of the study was to document the distribution of paid employment and unwaged work within different types of household. As designed, the study

⁷A fixed checklist of assets provides a more satisfactory relative measure than an attempt to list and value all assets because it is much more likely to be answered completely by all households. However, the limitation of the measure to physical assets obscures differentiation arising from investment in less "obviously 'productive' assets" such as marriage, health and education (see Heyer, 1989, p33).

involved monthly visits to the locality by a Calcutta-based research assistant (Arup Das), collection of records, distribution of new forms, translation and postage to Oxford. Due to the research assistant's other commitments, the visits were in practice less frequent and the records remained incomplete and largely untranslated. Despite a generous translation grant from the Inter-Faculty Committee for South Asian Studies, the cost of deciphering and translation in the UK has meant that data is only available on 8 households.

From the limited data generated by the pilot study, it was clear that members of households (almost entirely men) maintaining daily records without an enumerator would omit much of the detail of unpaid work. Thus, information requirements on the daily employment record form were to be kept as simple as possible. It is much easier to remember how much you were paid by an employer or how much you paid someone to work for you, than to remember how many hours you spent cleaning and caring for children (especially when many such activities are done simultaneously). However, own activities form part of the context in which labour hiring arrangements can be understood and evaluated. Thus a separate activity analysis was undertaken alongside the daily employment records.

Activity Analysis:

The activity analysis was intended to site the allocation of labour power to paid employment in the contexts of reproductive and unwaged productive work. It was carried out in the two localities over both the lean and the peak seasons. Twenty six households (half of the total number of sampled labour-selling households) were visited four times at random over a six week period corresponding approximately to each of the two study seasons - eight visits in all per household. This sample was purposively selected from the two bigger samples of labourer households in our study. These ranged from households which only occasionally hired out labour to those which depended on regular employment for their survival. The criteria for selection were to ensure that all religious, caste and ethnic groups and neighbourhoods were represented and that the sample included landed and landless households, large and small household sizes and female and male headed households. Given the intensity of questioning, only households whose members came across as willing to engage in in depth interviews (at the start of the fieldwork) were included. The sample size was restricted by the time constraints of the two research assistants, who carried out most of the interviews.

On each visit, every household member over six years old was interviewed in detail on their activities over the previous twenty four hours. These were then divided into five

categories - generational reproductive, daily reproductive, paid productive, unwaged productive and 'other'. Other activities included prayer, music-making, sport, attendance at festivals etc⁸. Passive activities such as sitting and lying down and biological necessities such as bathing, defecating, sleeping, eating and drinking are not recorded. Sexual activity was not elicited. A list of activities classified under each heading is provided in Appendix 4.

Migrant Employment Survey:

Because they were restricted to just two 'snapshot' seasons, daily employment records were insufficient to capture the diverse sources of migrant labour, means of recruitment and levels of earnings associated with particular sampled employers in the Bardhaman locality. To remedy this, a structured interview was held with each sampled employer at the beginning of 1992 and again in October 1993 asking them to recall for the preceding six months and one year respectively, the number of migrant labourers hired, the proportion of women to men, caste/ethnicity/religion, means of recruitment, type of labour arrangement and level of remuneration.

⁸The typology of activities used here remains flawed because reproductive work, such as cooking, often adds value to the raw materials used; it is thus productive as well as reproductive. Bagchi and Raju argue that it is only because of the reproductive work mostly carried out by women that men are free to "take up economically measurable productive activities" (1993, p240).

A parallel survey was conducted in the Purulia locality. There, it was possible to identify quickly from one or two informants in each neighbourhood exactly who had migrated, dates of departure and return, and with whom they had travelled. Structured interviews were later held with members of sampled labourer households, who had migrated. These focused on addresses of destination villages, means of recruitment, types of labour arrangement, levels of remuneration, travel costs, and organisation of domestic tasks.

In both localities, employers, labourers and gang leaders were asked about the history of the seasonal migration. Labourers who had settled in the Bardhaman locality over the last twenty years were asked to recall how they had come to be there and labourers in the Purulia locality were interviewed on the extent of and conditions of migration in previous decades.

Farm Management Survey:

A full survey of farm budgets had been planned with sampled cultivators in order to be able to analyse the demand side explanations for the coexistence of diverse hired labour arrangements most effectively. However, because resources were already overstretched with other data collection activities, it was only possible to gather such information from one or two farmers in each locality. Separate data were gathered on the costs of inputs (including labour) and returns

from sale of output for each of the main crops. Indicative profits per unit of land were calculated, providing background data, which are drawn on when necessary to help explain particular types of contractual arrangement.

Non Quantitative Data Collection:

During the fieldwork periods, diaries were kept by Khushi, Paramita and I on our daily interactions and observations in the two localities. From my earlier period of residence in the Purulia locality and from the first days of enumerating households in the Bardhaman locality, I began to identify key informants, with whom I engaged in informal and open discussions. In addition, Khushi and Paramita developed their own key informants. Thus, over time and as a team, we were able to draw on relations of trust with women and men, rich and poor, Hindu and Muslim, low caste and high. This was of critical importance to the accuracy of the data. For example, while one of the largest employers in the Purulia locality was hesitant to explain the differences between particular types of long duration labour arrangement, his younger brother, with whom I had spent several afternoons playing cards in the winter of 1990, was willing and able to give a detailed typology.

Other key informant relationships were developed through acceptance of hospitality. 'Taking food' in somebody's house was partly a political statement. We did not want to be

identified with any particular group and so accepted food and drink whenever offered. However, some offers were made in the expectation of future benefits, which had to be quickly corrected.

All three of us were aware that simply turning up and asking for questionnaires to be completed would lead to alienation of informants. It was important sometimes to arrive with no apparent purpose and just to sit in a group or engage in conversation on a topic completely unrelated to our enquiry. In this way, strands of information could be picked up about relationships between individuals or groups in a locality, which could be pieced together later and cross-checked with key informants to add to our understanding of the context of labour exchange.

The image I presented to the people in the study localities was that I was a student of agricultural economics and particularly interested in the organisation of agricultural labour. I was going to write the material collected up into a doctoral thesis (or book) in order that outsiders could have a better understanding of agriculture in West Bengal and to further my own employment prospects. It was emphasized that nothing could be expected to change directly as a result of the research in their particular village, but rather that the study villages would be used as illustrations of wider processes, and that all information collected would be confidential.

Thus I rarely mentioned party politics, for example, although I regarded an understanding of the dynamics of party politics as an essential part of the context of labour exchange. It was through just sitting, listening and being around that such information became accessible.

During the intimate interviews required for the activity analysis, Paramita and Khushi spent much longer with certain individuals, mostly women, than was strictly necessary to obtain the information. For several women, they became confidants and learned much about both inter- and intra-household relations. This was especially valuable for developing an understanding of decision-making inside the households. Resources were not available for a formal survey on this, which in any case may have proved less revealing. Such information as I have on borrowing and lending, which was not usually written down in daily records, was gathered through casual conversations of this type.

2.2.4 Strengths and Limitations of the Data

The short recall period of twenty-four hours in the daily employment records gave a more accurate and nuanced picture of arrangements than methods relying on recall over a month (such as that used by Hart) or longer. The recording of multiple components of the arrangement enables the study to evaluate the whole package making up the effort and material reward

part of the arrangement, rather than being restricted to a wage rate or contrived contract type.

As far as possible indigenous terms are used for types of hired labour arrangement, enabling the analysis to stick as closely as possible to the way labour exchange is viewed by the actors involved. The consistent use of indigenous terms for types of labour arrangement retains the embodiment of the social relationship where it occurs in the terms themselves. It also avoids crude aggregation of the arrangements into stylised categories such as "casual" and "attached", which would have masked the analytical focus of the project.

Through residence in the study localities and continuous interaction with labourers and employers, valuable insights were gained into the non-quantifiable components of labour arrangements. The continuous presence of at least one member of the team ensured that daily records were collected promptly and cross-checked, while events were still fresh in the memories of those concerned. If an apparent inconsistency was found, or data were missing, Khushi, Paramita or I would go directly to the employer and/or labourer concerned. The neighbourhood enumerators were also involved in this process. Presence in the locality over nine months, in addition to the three months spent earlier in the Purulia locality and the revisit in October 1993 enabled us to observe and take note of labour arrangements outside the relatively short seasons in

which daily employment records were maintained by sampled households.

Thorough cross-checking of daily records lead us to learn of labour arrangements that were not usually recorded. In the Purulia locality, in particular, these included forms of exchange labour and interest-bearing lean season loans tied to the provision of peak season labour. Because it was collected towards the second half of the main fieldwork period, the base line survey data was also relatively accurate. Nevertheless, it is likely that on certain issues respondents continued to adapt their replies according to hopes or fears for the consequences. Just as we, the researchers, often did not pursue a line of enquiry directly, in order to hide our true intent, so some people in the villages must have given deliberately misleading answers. One example of this in a State where registration of share-croppers was high on the political agenda was the probable withholding of information on land share-cropped out.

Moreover, despite the rigour of the cross-checking process, some data, such as the timing of payment could not be recorded accurately. First, a worker, who is told that she will be paid at some point in the future, will not be able to report exactly when payment will be made. Secondly, because those in relatively long duration arrangements regularly spent periods working approximately the same hours in the same tasks for the

same remuneration each day, the repetitive nature of the paperwork may have lead to instances of careless recording.

In the daily employment records, labourer households were also asked to give details of all transactions made over the working day, including exchange of goods and credit. Although these data provided some insight into levels of expenditure and composition of the overall household diet (obviously not its distribution among individual members), and to a certain extent on grocery shops as sources of credit, they did not enable us to establish a comprehensive picture of credit and expenditure by poor households. People found it tedious to note each day that they had purchased a couple of onions, a handful of potatoes, a small amount of spice and cooking oil. Moreover, many respondents were reluctant to reveal sources or amounts of credit. The latter may have been due to fear of the consequences from lenders.

The activity analysis had begun as a time allocation study. Severe problems were encountered in trying to record time accurately from each household member. Often, the same activity would occur one hour later in one person's reconstruction of a day than in another's. The attempt by Khushi and Paramita to take rapid yet inconspicuous notes (in order to maintain the level of intimacy in the interview), made it even harder to transfer actual timings onto code sheets. A second problem was inconsistency in categorising and thus coding activities. Statistical analysis of the time

allocation study was thus not attempted and it was renamed 'activity analysis'.

2.3 Analysis of the Data

Labour arrangements in each locality are analysed separately in the two chapters which follow. In each case, the locality is introduced with descriptions of the agricultural production systems, seasonal fluctuations in the demand for labour and the distribution of sampled households by wealth, caste, ethnicity, religion and residence location. Next the indigenous terms for labour arrangements in the locality are defined and the incidence of each type reported. At this point the arrangements are ranked according to the median daily earnings observed in each. The high quality of data on daily remuneration and the aggregation of cash, kind, food and other components, justifies the use of statistical analysis here. Thus all observations on earnings are ranked for each pair of arrangements. The observations remain labelled with the respective arrangement type. There do not need to be equal numbers of observations for each arrangement because the test is carried out on mean rank - the null hypothesis being that the mean rank of the earnings from one type of labour arrangement is lower than the mean rank of the earnings from the other.

Measurement of earnings is in hulled rice equivalent values, which were added together and reported as kilogrammes of rice.

The conversion rate between cash and rice was checked weekly against local retail rates^(see Appendix 2) and the hulled rice equivalent value of cash wages was altered as appropriate. This enables us to focus on the real purchasing power of the daily earnings package.

Using crosstabulations, I go on to confirm my observations regarding the lack of association between each arrangement type and the type of work done and to consider which groups are excluded from particular types of work or labour arrangement.

Logistic regression analysis is then used to suggest reasons why certain characteristics of individual labourers and of labourer and employer households affect the odds of a work day being performed in one arrangement type rather than another. The odds of an event occurring is defined as the ratio of the probability of the event occurring to the probability that it will not occur.

The logistic regression analysis can only be used to explain labour arrangements engaged in by relatively large numbers of workers. Although at least six types of indigenous labour arrangement were practised in each study locality (see sections 3.2 and 4.2), only two types in one locality and three types in the other involved large numbers of individual sampled labourers or sampled labourer households. Thus although different individuals from the same labour-selling

households hired out via different labour arrangements simultaneously, and although individuals hired out via combinations of arrangements over time, inferences about reasons for these combinations are made from statistical analysis of individual numerically important types of arrangement rather than by separate statistical analyses of the combinations themselves (see sections 3.2.3 and 4.2.2). For similar reasons, the analysis of combinations of labour arrangements via which labour was hired in by sample employers is not subjected to separate statistical analysis.

In the logistic regression, the unit of analysis is the work day. This is defined as the labour of an individual worker hired in or out on a particular calendar date. Indeed labourers could not be classified according to a single type of arrangement when many regularly engaged in a number of different arrangements over a season.

Logistic regression, like standard multiple regression, involves the measurement of the effects of several independent variables on a single dependent variable. As in multiple regression, for the analysis to be possible, the number of observations must exceed the number of independent variables. However, unlike multiple regression, logistic regression is possible with a categorical dependent variable. In the simple version used in this thesis, the dependent variable is dichotomous, with the values 1 and 0 referring to the occurrence of mutually exclusive events. In almost all cases,

a particular labourer enters only one type of hired labour arrangement on a particular day. At the same time, an employer hires in each labourer on each day under one specific arrangement. Logistic regression enables us to test how a number of independent variables, chosen on the basis of the hypotheses set out at the beginning of this chapter, affect the odds that a work day will be worked in a particular type of arrangement. The coefficient of each independent variable is a measure of the effect of that variable on the odds that the event (represented by the dependent variable taking a value of one) occurs, holding all the other independent variables constant. The formal logic of logistic regression is given in Appendix 3.

In the last sections of chapters three and four, I attempt to explain variations within types of labour arrangements according to attributes such as earnings and the form and timing of payment. Reflecting the limitations of the data discussed above, certain components of hired labour arrangements such as the timing of payment are analysed using tabulation alone. Most of the data collected via the daily employment diaries are considered to be reliable and consistent, however. In these cases, summary statistics (such as mode, mean, range and standard deviation) are used as appropriate to describe salient patterns in the data.

Most variables, such as form of payment and timing of payment are categorical. Chi-square tests are used to test for

association between pairs of categorical variables indicated by cross-tabulations. However, in the case of continuous variables such as hours of work and total rice equivalent value of remuneration, Pearson's correlation coefficients are calculated. At the end of chapters three and four, the descriptions of and explanations for the existence and coexistence of diverse labour arrangements in each locality are summarised and, where appropriate, compared.

In chapter five, data collected in the migrant labour survey is tabulated and discussed in the light of propositions arising from a brief review of the migration literature. Chapter six goes on to examine labour arrangements inside the household, and the ways in which differential deployment of labour to unwaged activities impacts on the types of labour arrangement entered by individuals of that household.

CHAPTER THREE: DIVERSE LABOUR ARRANGEMENTS IN THE BARDHAMAN LOCALITY

3.1 THE BARDHAMAN LOCALITY

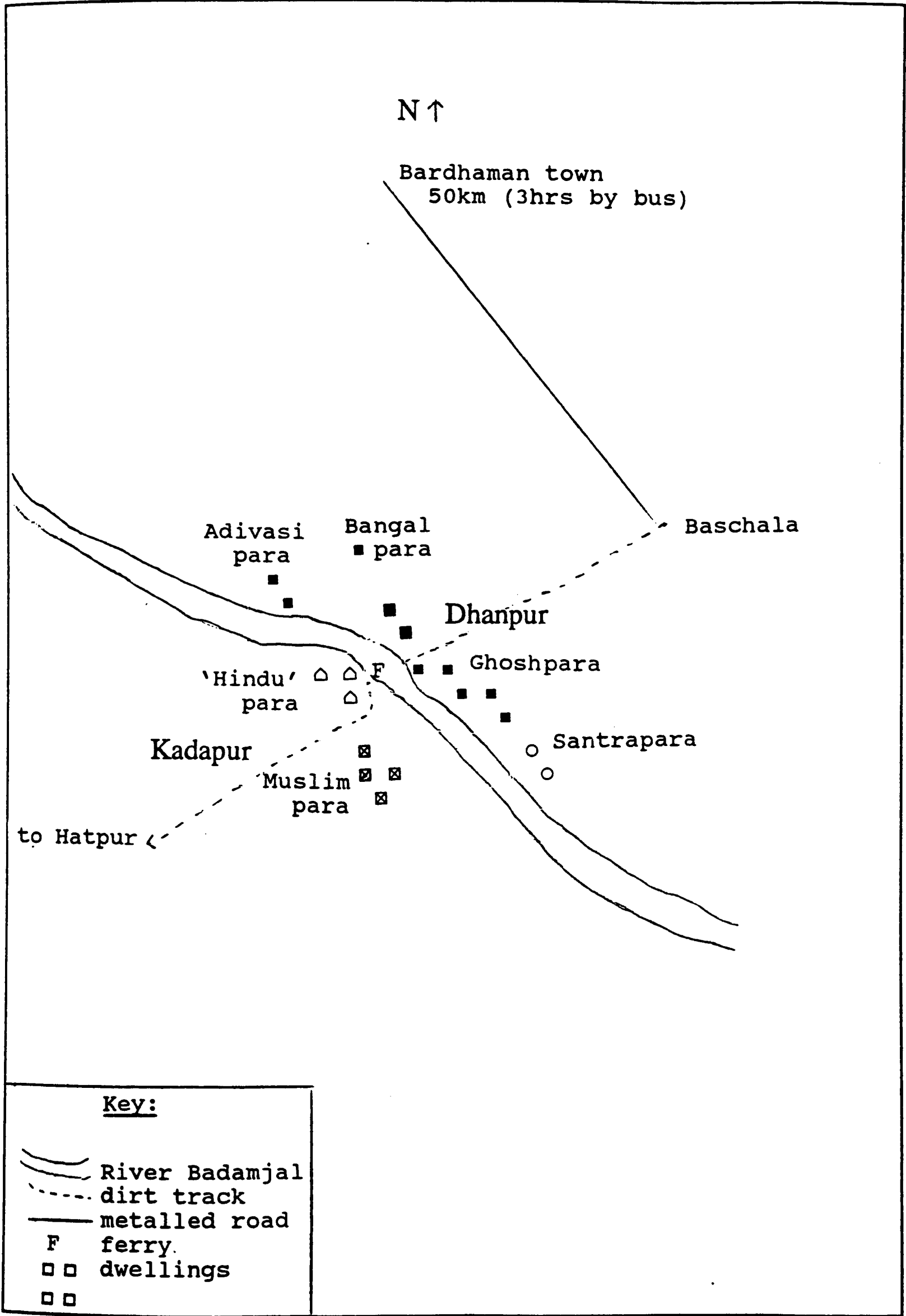
The first study locality was based around the villages of Kadapur¹ and Dhanpur (see Map 2). To the north east of Bardhaman district in the centre of West Bengal state, the market town of Satgachia lines the crossing of the Kusumgram-Memari and Bardhaman-Kalna roads. About fifteen kilometres away by road and track the river Badamjal, marking the border between two development blocks, is crossed by a small ferry linking the large villages of Baschala and Hatpur each three and five kilometres from the river by mud track. At the crossing on the south east bank lies Kadapur, inhabited by a few backward caste² Hindu families, a larger number of Muslim families, recent settlers - mostly *adivasi* ('tribals') - from the dry west of the state and eastern Bihar, and at certain times of the year groups of seasonal migrant workers from the same areas.

On the opposite (north west) bank the larger village of Dhanpur appears as a straggly line of dwellings, mostly belonging to backward caste Hindus. After a break in the

¹The names of places and individuals have been changed to protect the identity of informants.

²Backward caste is the blanket term used to describe Hindus who fall between high castes (such as Brahmins) and untouchables or Scheduled Castes. It is an official term embodying assumptions regarding the economic status of the castes concerned, which make up the majority of Hindu society.

Map 2: The Bardhaman Locality (not to scale)



line, "Adivasi para"³ and "Bangal para" house recent and not so recent settlers in the area. Most of the settlers are Santal tribals from western West Bengal and Bihar. The few households in Bangal para, on the other hand, are Namasudra scheduled caste Hindus, who arrived from Khulna district of Bangladesh in the mid 1970s. Beyond the opposite end of Dhanpur - again after a break in the line of buildings - lies Santra para, inhabited entirely by Bagdi households, also scheduled caste Hindus⁴.

Whether the river is full or not, transactions of various types take place across it. One of the shops in Kadapur is regularly patronised by residents of Dhanpur; labour exchange takes place in both directions and the crossing is generally used for access to the larger villages and bus routes that lie further back from the river. Household economies revolve around agriculture. Most settled households own some land; some of those who own very little hire out labour to others, as do all those without land. Apart from a general shortage of jobs, poor infrastructure and seasonal variation in accessibility - for four months a year the locality can only be reached on foot, by bullock cart (but not bicycle) or by

³A para is a group of dwellings usually below the level of the village with common spatial and or social characteristics.

⁴Bagdis "love to call themselves Bagra-Kshatriyas thereby persuading themselves and trying to persuade others to regard them as of Kshatriya origin" (Basu, 1962, p28). Basu was referring to the Bagdi population of his study village, Kanchanpur, nine miles east of Bardhaman town. In Kanchanpur, the Goala were a *jal-chal* caste (Brahmins could accept water from them), while Baisnabs were *jal-achal* (Brahmins could not accept water from them). The relatively low caste status of the Baisnabs may explain their jealousy of the Goalas in the present study locality, of which the party political polarisation between Dhanpur and Kadapur is a manifestation (see below).

boat⁵ - ensure that very few residents enter employment or even petty trade outside the immediate locality. However, milk is produced for sale in Dhanpur and transported daily as far as Bardhaman in the form of *chana* (soft cheese) for use in sweet production. Secondary school and college students travel outside the locality daily as do the few primary school teachers and political activists.

Of the 195 households resident in the locality, 42 were selected as sample households. Seasonal migrant labourers were not included in the sampling process, though their terms and conditions of employment were recorded in employers' diaries and by interview with migrant labourers. Of the 131 sampled individuals (not including those less than 6 years old), 38 individual labourers from 25 households hired out labour on at least one day over the two seasons. 17 employer households hired in labour on at least one day. 2 households both hired in and hired out labour. The distribution of landholdings among sampled households (see table 1) suggests a skewed distribution of landholdings in the village with 19 per cent of households controlling almost 80 per cent of the land.

A full census of village landholdings was not taken for the reasons given in footnote 5 (above). Official data on the ownership distribution of landholdings indicates that 51 per

⁵river barges arrive during the rains to purchase grain and straw for markets as far as Calcutta.

cent of households owning land fell into the category of marginal farmers (Ghosh and Majumdar, 1992, p23, table 2.14). Table 2 shows the distribution of sampled households by asset rank, which is a relative measure based on the value of land controlled, livestock owned and other assets (this should not be confused with the wealth ranking used to select the sample, see footnote 5). The table suggests that labourer households as well as employer households can be differentiated by wealth. The ten relatively less poor labour-selling households (in asset classes 2 and 3) cultivate land and thus rely less on income from hiring out labour.

Agricultural production possibilities are determined partly by the extent of private shallow and mini deep tubewell irrigation⁶ and partly by the river lift pumps owned by the state government and managed by committees in Kadapur and Dhanpur villages - each village has one pump supplying river water to the major part of the *mouza* (village revenue area). The Badamjal river is used as a drainage channel from the Damodarpur canal, so water supply to it is not predictable. The precise timing of the *boro* paddy growing season from mid Magh (February) to late Baisakh (May) thus varies each year.

⁶Both shallow and mini deep tubewells (also known as deep set shallow tube wells, Palmer-Jones, 1992, pA137) employ "a pumping device to draw water from an underground aquifer through a boring enclosed by a metal or fibre glass pipe" (Boyce, 1987, pp230-1). The pump of a shallow tube well is situated above the ground. That of a mini deep tubewell is buried beneath the surface.

Table 1: The Distribution of Landholdings Among Sampled Households in the Bardhaman Locality:

Land controlled (hectares)	Government Size Category	Sampled households	
		No	%
0	landless	10	24
0.01-1.00	marginal farmer	21	50
1.01-2.00	small farmer	3	7
2.01-4.00	medium farmer	3	7
> or = 4.01	large farmer	5	12

Notes:

Landholdings have been weighted for irrigation and tenancy status.

Mean landholding = 1.32 hectare (9.9 *bigha*)

Median landholding = 0.15 hectare (1.1 *bigha*)

Biggest landholding = 9.7 hectare (73.0 *bigha*)

Landholdings are measured locally in *bigha*.

1 hectare = 7.5 *bigha*

1 acre = 3 *bigha*

Table 2: Distribution of Sampled Households in the Bardhaman Locality by Asset rank:

Asset rank		No of Labourer Households	No of Employer Households	Total no. in Sample
1	(wealthiest)	0	9	9
2		1	5	6
3		9	3	11
4		6	0	6
5	(least wealthy)	10	0	10
Total		26	17	42

Notes:

Ranges of asset values (land + livestock + selected other assets) for each rank:

- 1 Rs 200,100 - 1,500,000
- 2 Rs 80,100 - 200,000
- 3 Rs 20,100 - 80,000
- 4 Rs 5,100 - 20,000
- 5 Rs 0 - 5,000

This 'summer' paddy is entirely dependent on irrigation as zero or negligible rainfall is expected until the storms of high summer near the end of the *boro* growing season. In any case, such storms are unpredictable and the high investment in *boro* cultivation requires security of input supply - crucially water.

The leasing in and out of land for this purpose was common in the *boro* paddy season. Tenancy, whether at fixed rent or on a share-cropping basis was otherwise unusual (see table 3). Potato, a major winter crop (Pous-Phalgun; mid December to late February/early March, see figure 1), also requires groundwater irrigation. The *aus* and *aman* - monsoonal - paddy crops⁷ only need groundwater as a back up against rainfall and river water failure. The distribution of plots by cropping pattern can be gauged from the rotations reported by sampled households in table 4. The table shows that most land was double cropped with *aman* paddy being followed by *boro* paddy or a *rabi* (winter season) crop, such as potato or mustard.

In the last three years mini deep tubewells have taken over from shallow tube wells as the main *boro* season groundwater irrigation source (a recent trend confirmed by the work of Palmer-Jones (1992), Neil Webster, pers. comm., among others).

⁷Aus paddy is transplanted at the first rains in Ashar (June-July) and harvested in Aswin-Kartik (September-October). Aman paddy is transplanted towards the end of Ashar or in Sraban (July-August) and harvested in Agrahayan-Pous (November-December) (see figure 1).

Table 3: Distribution of Cultivated Land of Sampled Households by Tenure - Bardhaman Locality:

TENURE	AREA (hectares)
owner cultivation	41.1
leased in (fixed rent)	14.2
leased out (fixed rent)	5.2
leased in (share-cropped)	1.8
leased out (share-cropped)	0.1
cultivated as part of labour contract	0.03

Source: Base line survey of sampled households.

Notes: These figures refer to the plots owned or leased by sampled households in the year ending December 1991. They are reported figures and cannot be easily crosschecked as government figures on land tenure are unreliable, especially since Operation Barga. In the table, the extent to which reported leasing out exceeds reported leasing in for both fixed rent and share-cropping tenancy arrangements suggests that these figures too are subject to respondent bias. The relatively large area leased in refers mostly to the boro paddy season only. If the same plot was cultivated under different tenure arrangements in the reference year, it was counted twice in this table.

Figure One:

Bardhaman Locality - Main Agricultural Employment Activities by Month and Season:

Bengali month	English month	Season	Activity
Baisakh		Summer	Harvest <i>boro</i> paddy. M
	May		
Jaistha	June		Sow nurseries for <i>aus</i> and <i>aman</i> paddy. Plough.
Ashar	July	Rains	Plough. Transplant <i>aus</i> paddy. M
Sraban	August		Transplant <i>aman</i> paddy.
Bhadra	September		Weed paddy.
Aswin			First <i>aus</i> paddy
October		harvested.	
Kartik			Plough potato plots.
	November	Winter	
Agrahayan	December		<i>Aman</i> harvest begins. M
Pous	January		Plant and ridge up potatoes.
Magh	February		Sow <i>boro</i> paddy nurseries.
Phalgun	March		Transplant <i>boro</i> paddy. M
	March	Summer	Harvest potatoes.
Chaitra	April		Weed paddy.

Notes: M denotes the periods at which the demand for agricultural labour is highest and large numbers of migrant labourers converge on the area (see chapter 5).

Table 4: Cropping Pattern Among Sampled Households in the Bardhaman Locality (January -December 1991):

CROP	AREA (hectares)
AMAN only	6.7
BORO only	18.9
AMAN + BORO	34.4
AUS only	1.0
AUS + BORO	1.4
AUS + RABI potato/ potato + summer oilseed or vegetable	5.7
AUS + RABI mustard/ mustard and summer oilseed	2.6
AUS + RABI mustard + BORO	0.6
AUS + RABI wheat	0.04
RABI mustard/ potatoes or other vegetables only	1.0
SUGAR CANE	0.1

Source: Base line survey of sampled households - each household was asked to specify the crops grown on each plot of land owned or leased in the year ending December 1991. This table is based on aggregation of that data.

Notes: The area marked marked 'BORO only' mostly duplicates plots marked 'AMAN only' as respondents were asked to record plots twice where they were cultivated under different tenures in the reference year. These plots were leased in or out in the boro season to rationalise production on fragmented plots around single sources of groundwater irrigation. This contract was usually between households with relatively large landholdings for a fixed rent per *bigha* (known locally as a *thika* arrangements and not to be confused with the arrangement of the same name in the Purulia locality). Most often the lessor was the owner of the irrigation pump.

This may be closely associated with the declining level of the water table. Its effects, however, are to alter the agrarian structure from one in which ownership of land is the prime source of economic power to one where ownership of groundwater resources is of rapidly increasing importance. Ownership of a mini deep tubewell (MDTW) gives the cultivator access to revenues from water lessees or much larger areas of *boro* paddy production, rationalised by seasonal plot exchange.

Since the Panchayati Raj reforms in 1977, local political activity has focussed on the Gram Panchayats (the lowest tier of local government, covering on average eight to ten villages and total populations of approximately 12,000 (Webster, 1992, p25)), to which representatives are elected from each village. Kadapur and Dhanpur lie in separate Gram Panchayats. The Communist Party of India (Marxist) (CPI(M)) is in power in both the Gram Panchayats and is almost unchallenged in Kadapur village. In Dhanpur, however, its main rival in West Bengal state politics, the Congress (I) party, dominates. The Panchayat is the agency used by the state and central governments to allocate developmental resources for the local implementation of government schemes (such as the Integrated Rural Development Programme (IRDP), National Rural Employment Programme (NREP), Jawahar Rozghar Yojana (JRY) and others)⁸. The three parallel structures of elected officials, party cadres and government administrative officers are represented

⁸The IRDP provides subsidized loans for the purchase of income generating assets, while the NREP and JRY were designed to provide employment to poor families on road building and other public works.

at the local level by Panchayat Members (including the Panchayat chairman, the Pradhan), by the Local Secretary of the CPI(M) (and to some extent by that of the peasants' union, the Kisan Sabha) and by the Panchayat secretary. To varying degrees, reflecting their locally specific interrelationships, these all carry tremendous opportunities for patronage (see Bandopadhyay and von Eschen, 1988, pP10).

It is perceived as helpful, in applying for a pumpset loan for example, to be a known supporter of the party in power in the Panchayat. In a recent study of three villages in Birbhum District it was found that although the allocation of resources by the Panchayats tended to stick to targeted income bands, within those bands members or sympathisers of the ruling party received disproportionate shares of resources (Williams, 1993). Even some political enemies of the ruling party pay lip service to it in order not to miss out on resource allocation. Migrant labourers in dispute with their employers look to CPI(M) party members as supra-local authorities though they can be disappointed if the employers and the local members turn out to be the same people (see chapter 5). The CPI(M) have succeeded to a certain degree in their aim of facilitating class collaboration rather than class conflict in the countryside as well as the state as a whole (see Economic and Political Weekly, July 1992). However, inter party rivalries do colour local political

affairs and stain recent history⁹. These may have a class quality - on the one hand the former zamindars of the locality are considered class enemies by the CPI(M) and on the other hand many larger employers resent the new found voice of agricultural labourers. Such class-based resentment has been reported within the CPI(M) (Dipankar Bhattacharya, 1993; Prabir, 1993). As we shall see, powerful individuals can use the new political institutions to further their social and economic domination of a locality (cf Tornquist, 1992; Acharya, 1993; Dipankar Bhattacharya, op. cit.).

The population of the locality fluctuates during the year because of the huge inflow of migrant labourers in the peak agricultural periods (see figure 1). The four busiest seasons occur at the *aus* and *aman* transplanting, at the *aman* harvest and at the *boro* paddy transplanting and harvest. However, as the potato season overlaps with the *aman* harvest and *boro* transplanting, migrant labourers come at irregular times and reside for longer periods, usually in mud-walled rooms owned by their temporary employers in the employers' *para*.

The locality's 195 settled households live in six *para*: Adivasi *para* (including Bangal *para*), Santra *para*, Ghosh *para* and Purba *para* (on the north west bank); and Hindu *para* (comprising the smaller Baisnab, Namasudra and Muchi *para*) and Muslim *para* on the south east bank. When necessary, we refer

⁹Within the last fifteen years in each of the fieldwork localities CPI(M) and Congress Party antipathy had on at least one occasion become a matter of life and death.

to the north east bank as Dhanpur and the south west bank as Kadapur. Figure 2 illustrates the character of each para, in terms of the *jati* of the inhabitants and their class (labourer or employer).

The distribution of sampled households by caste and religion is given in table 5. The table, representative of the village population as a whole, indicates that most employers in the locality were Hindus of the Goala caste. Labourers were mainly Bagdis, (scheduled caste), Muslims or Santals (scheduled tribe). The villages Dhanpur and Kadapur were selected together because of their proximity. Initial visits established that there was exchange of labour between the two. However, as the study progressed I realised how, despite their historical interlinkages - including land seizures on the Dhanpur side led by a political activist from Kadapur, the general influence of the same individual in the politics of both Gram Panchayats¹⁰, the settlement on Dhanpur land of recent settlers who arrived as migrants in Kadapur and the residence of one Dhanpur landowner in Kadapur - the employers of the two villages tended to hire labour either from within their villages or from migrants.

In Kadapur the employment of agricultural labourers was confined to a very few households who owned and/or cultivated

¹⁰The man concerned is a local leader of the Kisan Sabha (CPI(M) led peasant union) and has a decisive say in the level of wages on both sides of the river.

Figure Two: A Summary of the Caste and Class Composition of Para in the Bardhaman Locality:

PARA	JATI		CLASS
Adivasi	Adivasi	Santal and others	Labourers
Bangal	Hindu	Namasudra	Labourers
Santra	Hindu	Bagdi	Labourers
Ghosh	Hindu	Goala	Employers
Purba	Hindu	Goala	Employers
Hindu - Baisnab	Hindu	Baisnab	Mixed
Hindu - Namasudra	Hindu	Namasudra	Labourers
Hindu - Das	Hindu	Muchi	Labourers
Muslim	Muslim and Adivasi	Muslim and Santal	Mixed

Table 5: Distribution of Sampled Households in the Bardhaman Locality by Caste and Religion:

Religion & Caste	No of Labourer Households	No of Employer Households	Total No. in Sample
Hindu: Goala	0	11	11
Bagdi (SC)	7	2	9
Baisnab	1	1	2
Namosudra (SC)	1	0	1
Maji	1	0	1
Muchi	1	0	1
Sen	1	0	1
Muslim:	8	3	10
Other: Santal (ST)	5	0	5
Oraon (ST)	1	0	1
Total	26	17	42

Notes:

SC = Scheduled Caste, the official term for the untouchable castes.

ST = Scheduled Tribe, the official term for those classified as tribal or adivasi.

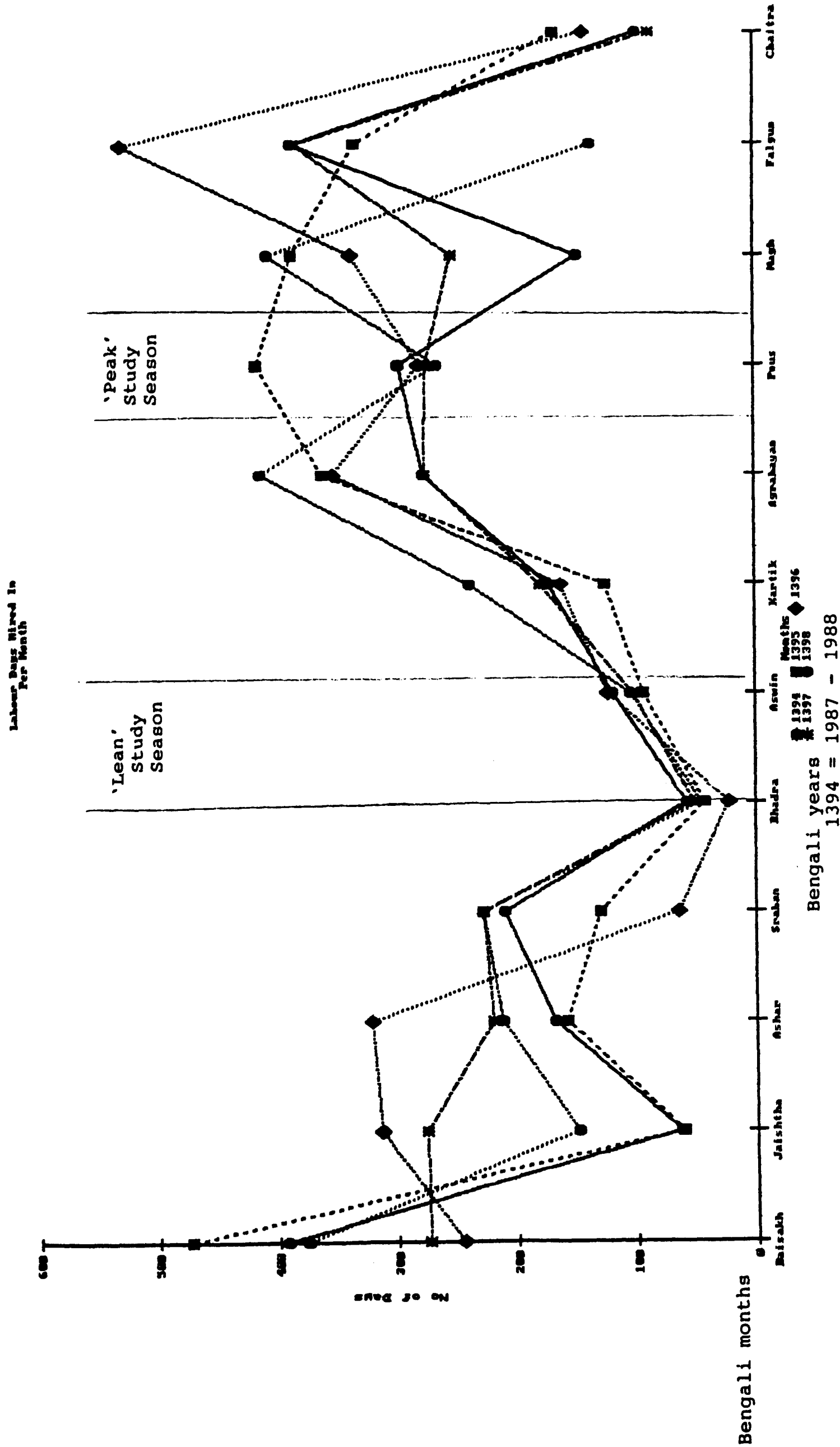
Maji and Sen are titles (surnames), which do not necessarily indicate caste ranking.

relatively large amounts of land. Most of the settled households in both Hindu and Muslim *para* (including recent Santal settlers living throughout the year in employer provided accommodation) were net sellers of agricultural labour. In Dhanpur, on the other hand a large number of households - mostly in Ghosh *para* and Purba *para* - hired in agricultural labour. Adivasi and Santra *para* were mostly inhabited by hirers out of labour.

Seasonal fluctuations in demand for agricultural labour are illustrated in figure 3. This data is extracted from the labour hiring accounts of one of the largest employers in the locality (controller of approximately 15 acres), over five years from Baisakh 1988 - to Phalgun 1992. In the 1989-90, the number of days labour hired in varied from 25 in the month of Bhadra (mid-August - mid-September) to 530 in Phalgun (mid-February - mid-March). Inter annual variation in the exact timing of labour demand for *boro* transplanting (Magh/Phalgun) depends on the timing and knowledge of the release of excess water into the river Badamjal.

Bhadra - Aswin (August - September) 1991 was selected as the lean season and Agrahayan - Pous (December - January) 1991-92 as the peak season for collecting employment records. The main agricultural employment activity in the lean season was the weeding of *aus* and *aman* paddy transplanted just a month or two earlier. This coincided with the monsoonal period during

Figure 3: Seasonal fluctuation in the demand for agricultural labour for one employer (cultivator of 15 acres) over five years



which all paths around the villages were semi liquid and the river was at its highest level. The main activity in the peak season was the cutting and threshing of paddy as well as binding, loading, transporting, winnowing and storage of the grain and stacking of straw. Also potato plots are ridged up and irrigated after planting. This is the cool, usually dry, winter season, when communication with the village, except by river, is much easier.

In the following discussion, I will refer to three types of labourers in terms of their length of residence in the locality: seasonal migrants (defined as those who have been in the village or intend to stay for less than one year), recent settlers (those who have been living in the village for at least one year but less than five years and intend to stay) and local labourers who have been resident for over five years. Labourers who have been resident for between 5 and 20 years are thus classified as locals and it will sometimes be necessary to distinguish between them and those settled in the village for some generations, as they have different relations with local employers and belong to different castes from longer established labourers. The recent settlers (as opposed to the new 'local' labourers) live mainly in employer para in temporary employer-owned accommodation. It is hypothesised that this creates a greater degree of dependence on the employer, especially where horizontal solidarity between recent settlers has not developed.

3.2 TYPES OF HIRED LABOUR ARRANGEMENTS ENTERED IN THE BARDHAMAN LOCALITY

In this section the indigenous types of labour arrangement are defined and the lack of correspondence between agricultural operations and particular arrangement types is illustrated. Labour arrangements are shown to lead to differential daily earnings equivalents. In sections 3.2.5 and 3.2.6, logistic regression analysis is used to examine the effect of wealth, *jati*, gender, age, neighbourhood¹¹, and household size (number of adult workers) on the likelihood of a work day being hired in or out via specified arrangement types. The analysis examines hypotheses i) to v) in section 2.1.

The six types of hired labour arrangements found in the Bardhaman locality can be defined as follows:

CHUTO - labour hired on a daily time rate basis without an explicit obligation to a single employer. *Chuto* is defined literally as 'recess, leisure, exemption, release, relief' (Samsad, 1982). *Chuto-kishen* were described in an earlier study of a village in the same district as those who "work on [a] daily wage basis" (Chakrabarti, 1986, p129). The word, similar to *choota mujoor* used in parts of Gujarat (Kothari, 1991; Breman, 1985) suggests "freedom". I have already argued

¹¹The categories *jati*, gender and neighbourhood are not always separable. Where this is the case, one is used as a proxy variable for the other(s).

in Chapter 1 (section 1.3.2), that the unqualified association of daily wage labour with free labour is problematical.

BANDHA - a seasonal labour arrangement based on advances and "beck and call" rights for the employer over the labourer. The term derives from the verb to tie or bind (Samsad, op. cit.). *Baandhaa-kishen* were described by Chakrabarti as working "at a fixed rate for a specified period" (loc. cit.).

NAGARE - annual duration arrangements with payment at a fixed daily rate. The agreement implied that the employer would hire the labourer whenever labour was required and the labourer was expected to be available on those days. Advance payments were regularly made to nagare workers - in one case a small plot of land was also provided for the duration of the arrangement. In that they are paid at a fixed daily rate, nagare workers differ from the *naagaare-kishen* reported by Chakrabarti, who were employed for an annual lump sum cash payment with perquisites (loc. cit.). The literal meaning of nagare is 'continuously, incessantly' (Samsad, op. cit.).

RAKHAL - literally cowherd or herdsman (ibid.). The word probably derives from the verb *rakha* to hold or keep, which describes part of the relation between the labourer and the livestock in his care. The duration of *rakhal* arrangements is one year or longer and payment is made up of an annual lump sum in cash, cooked food daily and other items, including clothes, tobacco and bathing oil. Because of the nature of

livestock breeding and milk production, *rakhal* workers were expected to work every day.

PHURON - literally 'piecework', the *phuron* arrangements are negotiated between employers and gangs (*dol*) of local or migrant labourers for a specified activity, such as harvesting paddy.

SEASONAL MIGRANT - groups of seasonally migrant labourers from outside the locality and usually from outside Bardhaman district negotiated seasonal contracts at individual rates per day worked¹².

Our main research question is concerned with explaining the existence and coexistence of these types of arrangements and the variation in terms and conditions found in each one. Tables 6 and 7 indicate the absolute and relative incidence of each type of arrangement in terms of workdays (table 6) and the number of individual labourers and labourer and employer households (table 7).

The majority of work days hired in or out were in *chuto* and *bandha* arrangements, except in the peak season when the majority of days hired in by sampled employers were in seasonal migrant arrangements. The high proportion of

¹²A few migrants were hired on a piece rate basis as well.

Table 6: The Distribution of Days Worked between Arrangement Types:

Class/ Season		No. and percentage of days in each arrangement type						Tot No Days
		CHUTO	BANDHA	NAGARE	RAKHAL	PHUR	SEAS MIG	
Employer lean	No	108	133	12	136	12	0	400
	%	27	33	3	34	3	na	
Employer peak	No	307	455	19	92	18	1130	2021
	%	15	22	1	5	1	55	
Labourer lean	No	113	116	25	50	27	0	350
	%	32	33	9	18	8	na	
Labourer peak	No	303	427	17	74	16	0	834
	%	36	51	2	9	2	na	

Source: Daily records kept by sampled households

Note: PHUR = PHURON

Table 7: The Number and Proportion of Sampled Labourer and Employer Households and Individual Sampled Labourers in Each Arrangement Type:

		chuto bandha Seas.mig rakhal nagare phuron											
		No	%	No	%	No	%	No	%	No	%	No	%
Ind'l lbrers	Lean	25	66	18	47	na	2	5	2	5	7	18	
	Peak	28	74	24	63	na	2	5	1	3	1	3	
Lbrer hholds	Lean	18	72	13	52	na	1	4	2	8	7	28	
	Peak	20	80	18	72	na	1	4	1	4	1	4	
Emp'r hholds	Lean	12	100	6	50	na	4	33	1	8	1	8	
	Peak	13	81	7	50	11	69	4	25	1	6	4	25

Source: Daily records kept by sampled households

Notes:

Ind'l = individual

Lbrer = labourer

Emp'r = employer

rakhal days worked in the lean season reflected the smaller number of employment possibilities in crop production. However, very few sampled households were involved in *phuron*, *nagare*, or *rakhal*. Seasonal migrants were employed only in the peak season and were not included in the sample of labour households.

3.2.1 Inter-Contractual Differences in Daily Earnings

Patterned differences in daily earnings between arrangement types confirm that it would be incorrect to conceptualise village labour exchange as a market with a single 'price'. Earnings data for pairs of arrangements in each season were compared separately using labourer and employer records (see 2.3). Mann-Whitney tests were used to rank observations of earnings for each pair¹³. The results are presented in table 8. They indicate that seasonal migrants had access to higher earnings than local labourers and that for the latter, earnings from *phuron* were the highest available. Daily earnings in *chuto* and *bandha* arrangements were consistently higher than those in *rakhal* arrangements. Variations in earnings *within* each arrangement type are analysed in section 3.3.

¹³The Mann-Whitney test ranked pairs of arrangements by counting the number of times the earnings in one contract exceeded earnings in the other (having listed them in descending order).

Table 8 Pairs of Arrangement Types Ranked by Daily Earnings:

PAIR OF ARRANGEMENT TYPES	NUMBER OF CASES	MEAN RANK
Seasonal migrant <i>Bandha</i> (peak season)	1128 455	904 515
Seasonal migrant <i>Chuto</i> (peak season)	1128 291	750 554
<i>Phuron</i> <i>Chuto</i> (lean season)	12 109	116 55
<i>Phuron</i> <i>Bandha</i> (lean season)	12 133	140 67
<i>Bandha</i> <i>Rakhal</i> (peak season)	455 93	320 50
<i>Chuto</i> <i>Rakhal</i> (peak season)	307 93	247 48

Notes: Significant differences at the 0.05 per cent level were found between the arrangement types in each pair in the table. Earnings from the upper arrangement were significantly higher in each case. Results are based on employer diaries either in the lean or the peak season.

3.2.2 Type of Arrangement and Type of Work

The type of labour arrangement cannot be read off from the type of work, or vice versa. This contradicts a major assumption of Eswaran and Kotwal's model (see Chapter 1). Tables 9 to 12 show the distribution of days spent in each arrangement type by type of work in each season for employer and labourer records. They indicate that *chuto*, *bandha*, *nagare* and seasonal migrant arrangements are not associated with particular operations. Indeed, the large number of days spent in "other fieldwork" in the peak season is due to the mix of tasks expected of agricultural workers. The exception is *rakhal*, which is mainly, though not exclusively, associated with livestock.

3.2.3 Unit of Analysis

As relatively large numbers of labourers were involved in *chuto* and *bandha* arrangements, and in seasonal migrant arrangements in the peak season, we can use non parametric statistical analysis to test the effect of particular labourer and employer characteristics, such as wealth, *jati*, age, sex, residence location and settlement history on the likelihood that a particular working day will involve one type of

Table 9 The Distribution of Days Spent in Each Arrangement Type by Operation:

BARDHAMAN PEAK EMPLOYER RECORDS:

OPERATION	ARRANGEMENT TYPE					
	Chuto	Bandha	Nagare	Rakhal	Phuron	Migrant
Cut paddy	3	66	0	0	0	240
Thresh paddy	42	120	3	0	4	361
Potato ridge up/plnt	81	67	2	2	0	79
Paddy task and carry/ carry only	59	39	0	15	1	193
Other fieldwork	95	148	4	4	1	253
Crop proc/ non agric	4	8	0	0	0	2
Livestock care	1	3	9	71	0	5
Other	5	3	0	1	10	9
TOTAL	290	454	18	93	16	1142

Notes:

Crop proc = crop processing

Non ag = non agricultural work

Table 10: The Distribution of Days Spent in Each Arrangement Type by Operation:

BARDHAMAN PEAK LABOURER RECORDS:

OPERATION	ARRANGEMENT TYPE				
	Chuto	Bandha	Nagare	Rakhal	Phuron
Cut paddy	31	36	0	0	1
Thresh paddy	135	156	5	6	0
Potato ridge up/plnt	50	62	3	0	0
Paddy task and carry/ carry only	18	45	0	95	0
Other fieldwork	55	111	2	8	15
Crop proc/ non agric	0	5	0	0	0
Livestock care	3	7	9	55	0
Other	11	2	0	0	0
TOTAL	303	424	19	72	16

Notes:

Crop proc = crop processing

Non ag = non agricultural work

Table 11: The Distribution of Days Spent in Each Arrangement Type by Operation:

BARDHAMAN LEAN EMPLOYER RECORDS:

OPERATION	ARRANGEMENT TYPE				
	Chuto	Bandha	Nagare	Rakhal	Phuron
Livestock care	5	9	9	134	0
Weed paddy	60	82	3	0	0
Other fieldwork	18	27	1	0	12
Crop proc/ non agric	11	0	0	0	0
Other	8	13	0	1	0
TOTAL	102	131	13	135	12

Notes:

Crop proc = crop processing

Non ag = non agricultural work

Table 12: The Distribution of Days Spent in Each Arrangement Type by Operation:

BARDHAMAN LEAN LABOURER RECORDS:

OPERATION	ARRANGEMENT TYPE				
	Chuto	Bandha	Nagare	Rakhal	Phuron
Livestock care	11	9	9	55	0
Weed paddy	64	73	20	6	0
Other fieldwork	32	32	3	0	10
Crop proc/ non agric	5	2	0	0	15
Other	2	13	0	1	2
TOTAL	114	117	32	62	27

Notes:

Crop proc = crop processing

Non ag = non agricultural work

arrangement rather than another¹⁴. In the multivariate logistic regression¹⁵ method used here, likelihood is measured by odds (see 2.3 and Appendix 3).

In India, large scale surveys such as the Census and the National Sample Survey classify individuals according to main occupation. Differences in definitions of 'work' have lead to substantially different estimations of the proportions of women and men in the rural workforce in the same year (Jacob, 1986). The use of archetypal hired labour arrangements, such as 'casual' or 'attached' as categories of occupation can also be misleading. Our data suggest that the classification of individuals who hire out agricultural labour (almost always in addition to other occupations such as cultivation, livestock rearing, daily reproductive work (eg cooking, cleaning, 'dung work'), child care, gathering wild food and fodder and home manufacture - see Chapter 6) according to the type of arrangement via which they hire out, is oversimplified, as it ignores the combinations of arrangements into which many labour selling individuals and households enter (see table 13). In the peak season, more individuals and more households combined *bandha* and *chuto* arrangements, for example, than entered just one type of labour arrangement. The results of the logistic regression analysis in section 3.2.5 below

¹⁴The same analyses could not be used for *phuron*, *nagare* and *rakhal* because of the very small number of sample labourers involved (a maximum of two in the case of *nagare* and *rakhal*; the seven labourers hired via *phuron* arrangements in the lean season were each hired for just one day, see table 7). The number of individuals or households whose behaviour is being analysed, must exceed the number of independent variables.

¹⁵See Appendix 3.

Table 13: Combinations of Contracts Entered by Labour Selling Individuals and Households in the Lean and Peak Seasons in the Bardhaman Locality:

<u>LEAN SEASON:</u>		
<u>COMBINATION</u>	<u>% OF HOUSEHOLDS</u>	<u>% OF INDIVIDUALS</u>
<i>bandha and chuto</i>	20	21
<i>chuto only</i>	24	31
<i>bandha only</i>	20	21
<i>chuto and rakhal</i>	4	5
<i>phuron, bandha and chuto</i>	12	5
<i>phuron and chuto</i>	12	8
<i>phuron and nagare</i>	4	3
<i>nagare only</i>	4	3
<i>phuron only</i>	0	3
Total no of households: 25		
Total no of individuals: 38		
<u>PEAK SEASON:</u>		
<u>COMBINATION</u>	<u>% OF HOUSEHOLDS</u>	<u>% OF INDIVIDUALS</u>
<i>bandha and chuto</i>	50	50
<i>chuto only</i>	19	24
<i>bandha only</i>	19	15
<i>chuto and rakhal</i>	4	0
<i>chuto and nagare</i>	4	3
<i>phuron, bandha and chuto</i>	4	0
<i>rakhal only</i>	0	6
<i>phuron and chuto</i>	0	3
Total no of households: 26		
Total no of individuals: 34		

Source: Daily records kept by sampled households

suggest that the explanation for this may lie in the interaction of wealth and household size. Poorer households are found to be more likely to hire out in *bandha* rather than *chuto* arrangements, but, for given wealth, households with larger numbers of workers are more likely to deploy at least one member to *bandha* to diversify sources of credit. The combinations of labour arrangements account for the failure of the percentages of individual labourers and labour-selling households in each arrangement type in each season to sum to 100 (see table 7, above).

Because rural labourers may enter different arrangements on different days, in the regressions which follow, the unit of analysis is the work day. Labour-selling households could not be unambiguously classified as "chuto" or "bandha", when they often combined these and other arrangement types. Even individual labourers did not conform to single categories of arrangement.

3.2.4 Exclusions from Particular Arrangements Based on Caste and Gender Ideologies and Settlement History

Certain groups were excluded or excluded themselves from particular arrangements, and, in some cases, from hiring out labour *per se* on the basis of notions of appropriate roles derived from caste and gender ideologies. In general those from the backward caste Goala *jati* did not hire out labour. Women from labour households, which had been resident for

generations (ie most women in Muslim para, Hindu para and Santra para) did not hire out agricultural labour¹⁶. Recent women settlers in Adivasi para and seasonal migrants (mainly Santal women) did. However, the latter women, accounting for one quarter to one third of local labourers (see tables 14 and 15), only had access to certain arrangements, *chuto* and *bandha* rather than *rakhal*, *nagare* and *phuron*. Indeed, no recently settled or migrant labourers - men or women - entered *nagare* or *rakhal* arrangements.

3.2.5 The Odds of a Workday Being in a *Bandha* Rather Than a *Chuto* Arrangement

Logistic regression was first used to test the effect of selected independent variables on the odds that a particular workday would involve a *bandha* rather than a *chuto* arrangement. Both *bandha* and *chuto* accounted for approximately 30-40 per cent of work-days involving local labourers¹⁷, though in each set of records more days were recorded in *bandha* than *chuto* (see table 6, above). The results are presented below. These two arrangements were not associated with particular agricultural operations and no significant difference was found in daily earnings (which mostly fell in the range 4.1-5 kg of hulled rice equivalent,

¹⁶With the exception of widows, who hired out to work in others' homesteads at low rates of pay.

¹⁷In the peak season, labourers reported 51 per cent of days as having been worked in *bandha* arrangements.

Table 14: The Number and Proportion of Days Worked by Women Labourers in Each Arrangement Type in the Bardhaman Locality:

		<i>chuto</i>		<i>bandha</i>		Seasonal migrant	
		No	%	No	%	No	%

Employers hiring in	Lean	16	15	13	10	0	0
	Peak	46	15	163	36	489	43
Labourers hiring out	Lean	22	19	22	19	na	na
	Peak	109	36	134	32	na	na

Table 15: The Number and Proportion of Women Labourers Engaging in Each Arrangement Type in the Bardhaman Locality:

		<i>chuto</i>		<i>bandha</i>		Total	
		No	%	No	%	No	%

Labourers hiring out	Lean	7	28	6	33	9	24
	Peak	9	32	7	29	10	26

see tables 22 and 29, below). The main difference was the 'beck-and-call' commitment of labourers involved in *bandha* arrangements made against the provision of lean season consumption advances by employers. The analysis examines the characteristics of workers entering *bandha* arrangements and of employer households hiring in via *bandha* arrangements.

Labourer Records:

The following independent variables were logistically regressed with the dichotomous dependent variable BANDHA; the latter took a value of 1 if the arrangement was *bandha* and 0 if it was *chuto* (a daily time rate arrangement). Other types of labour arrangement were excluded from this analysis for reasons given in 2.3.

WEALTH - the wealth of the household, calculated from the value of the land area cultivated, weighted for productivity and ownership status, and the values of selected other assets. The rupee value of assets was divided by 10,000 in order to be able to compare its effect on the odds with independent variables measured in smaller units. It was hypothesised that WEALTH was negatively related to the odds of doing *bandha*. That is, the wealthier the labour selling household, the less likely that its members would enter a *bandha* rather than a *chuto* arrangement on a particular day. This is because a household with some land, livestock or other productive assets

would be less likely to require the lean season consumption credit, the cost of which to the labour household was:

- i) restriction on the freedom to hire out to any employer for a specified period, and
- ii) lower status involved in being obliged to a particular employer.

Moreover, landed labourers were constrained in their own cultivation and other income-generating activities if they were pre-committed to work at an employer's beck-and-call.

WORKERS - the number of household members aged between 14 and 60. Older and younger members also contributed to the livelihood of the household, but it was rare for them to sell their labour power. It was hypothesised that the number of WORKERS in a labour-selling household would be negatively related to the odds that a workday would be in a *bandha* rather than a *chuto* arrangement. The greater the number of workers in a household, the greater the number of earnings possibilities and thus the smaller the need to take wage advances for lean season consumption. Hart showed that the larger the household size and higher the number of workers in relation to dependents, the less a household needed to deploy one or more individuals to low paid, low status, arduous (*tebasan*) work outside the village in the lean season.

JATI - literally caste, the term is used here as a dummy variable for ethnicity to distinguish Santal and other *adivasi* households from others. Most *adivasi* households settled in

the area relatively recently. It is hypothesised that compared to households of other *jati*, if a household is *adivasi*, the odds of one of its members being in a *bandha* rather than a *chuto* arrangement on a particular day are decreased. The main reason for this is that the biggest group of *adivasi* households in the village have developed a cooperative consumption credit system, enabling them to avoid the disadvantages of a "beck and call" arrangement. However, it is also the case that a few other *adivasi* households (especially in Kadapur), still live in temporary accommodation of the type provided by employers for migrant labourers and can only survive via consumption credit against future labour.

AGE - it was hypothesised that the younger the worker the less likely they would enter a *bandha* arrangement. The reason for this is that older workers are less mobile and therefore would also be more dependent on lean season consumption credit. Very young and very old workers were not generally hired in *bandha* or *chuto* arrangements.

Results:

Backward steps were used to deselect variables not significantly related to the odds of BANDHA and to improve the overall goodness of fit of the model¹⁸. The final model is

¹⁸ The goodness-of-fit statistic compares observed probabilities to those predicted by the model (see Appendix 3). The high value of the significance of the goodness-of-fit statistic in the peak season leads us not to reject the hypothesis that the model fits. However, the zero value of the goodness-of-fit statistic's significance in the lean season does lead us to reject the hypothesis that the model fits. Nevertheless, as the

reported in table 16. In both the lean and the peak seasons WEALTH was found to have a statistically significant negative relation to the odds of a particular day being worked in a *bandha* rather than a *chuto* arrangement for a given number of workers in the household (and, in the peak season, given age and *jati*). That is, the wealthier the household, the less likely that any individual member would enter a *bandha* contract. For every Rs10,000 wealth a labourer household possesses, the odds of a member of that household hiring out in *bandha* rather than *chuto* on a particular day decline by one third. Because of the close association between the measure of wealth used here and a household's landholding, the results suggest that labour-selling households with their own cultivation are less likely to hire out via *bandha* arrangements.

However, contrary to expectations WORKERS was found to be positively related to the odds of a working day being in a *bandha* rather than a *chuto* arrangement. In the lean season, the odds increased by 37 per cent for each additional adult; in the peak season they increased by 49 per cent. In hypothesising that WORKERS would be negatively related to the odds of *bandha* rather than *chuto*, we wrongly equated one labourer-disadvantaged contract (*bandha*) with another

independent variables are significantly related to the odds of BANDHA in both seasons the results are reported and interpreted. It is acknowledged that in the lean season, only a fraction of the variation has been explained.

Table 16: Logistic Regression on BANDHA, Labourer Diaries:

Lean season
DEPENDENT VARIABLE IS BANDHA

Independent Variable	B	Sig	R	Exp(B)
WEALTH	-0.41	0.0004	-0.18	0.66
WORKERS	0.31	0.0376	0.09	1.37
constant	-0.41	0.3365		
Goodness-of-fit Significance 0.0000. Number of cases = 230				

Peak season
DEPENDENT VARIABLE IS BANDHA

Independent Variable	B	Sig	R	Exp(B)
WEALTH	-0.37	0.0000	-0.17	0.69
WORKERS	0.40	0.0000	0.18	1.49
AGE	0.11	0.0000	0.29	1.12
JATI	-2.03	0.0000	-0.28	0.13
constant	-2.83	0.0000		
Goodness-of-fit Significance 0.7497. Number of cases = 581				

(tebasan), which had been discussed by Hart. In fact they are very different. By separating out the effects of wealth and size of household workforce, the analysis suggests that for any given level of wealth, households with larger numbers of workers are more likely to deploy one member to a *bandha* arrangement, because they have other members to take other possibilities as they arise and, indeed, to carry out work on land they cultivate themselves. Indeed this finding is consistent with that of J. Harriss in Birbhum district of West Bengal in the early 1980s that labourer households sought as many sources of credit as possible to avoid becoming dependent on just one employer (Harriss, 1983). Clearly households with larger numbers of workers are better able to do this.

Neither of the other two variables were found to be significantly related to the odds of *bandha* rather than *chuto* in the lean season. However, in the peak season, AGE was found to have a positive and JATI a strong negative relation to the odds as expected. Thus the older a worker the greater the odds of a day worked being in a *bandha* rather than a *chuto* arrangement. This is consistent with the hypothesis that older workers are less mobile, less able to seek out the best opportunities and therefore likely to require consumption loans in the lean season.

The results suggest a highly significant negative relation between a household being *adivasi* (mainly Santal 'tribals') and the odds of an arrangement being *bandha* on a particular

day. Those *adivasi* households in the locality, who had settled ten to twenty years before, resided in a single *para* (neighbourhood). They had established an informal paddy lending scheme for households unable to command adequate income in the lean season. In Bhadra and Aswin 1993, 9 quintals of paddy were lent within Majher para (among its 15 households) to be repaid in paddy after the harvest. Santal people also retain stronger traditions of gathering and home manufacture than most 'untouchable' *jati* in West Bengal (see Chapter 6 and also Mayoux, 1982). Santal women workers, as well as being regarded as '*biswasee*' (trustworthy) and '*karmatha*' (hard-working) by employers (Singha Roy, 1992), appeared proud of their aloofness from relations of dependence on Hindu and Muslim employers.

Employer Records:

A similar set of independent variables were tested from employers diaries for their effects on the odds of a contract being in *bandha* rather than *chuto*.

WEALTH - this time WEALTH referred to the wealth of the employer. It was hypothesised that the wealthier the employer, the more likely he would use *bandha* rather than *chuto* contracts for local labourers. First, WEALTH was closely related to landholding size and the larger the landholding size, the more an employer would lose from lack of a guaranteed supply of labour. Further, the wealthier the

employer, the more capable of providing lean season consumption loans. Wealthier employers could also be hypothesised as more likely to be involved in faction leading positions requiring the creation and maintenance of clienteles and thus the reproduction of dependency relations.

WORKERS - this time WORKERS referred to the number of members of the employer household between 14 and 60. It is hypothesised that the greater the number of WORKERS in an employer household, the fewer guaranteed labourers they are likely to require in the peak season. Thus a negative relation is expected between WORKERS and the odds of a *bandha* arrangement in relation to *chuto* arrangements.

LBSEXDUM - this refers to the sex of the labourer. Just as we expected *adivasi* workers to decrease the odds of an arrangement being *bandha*, we expect male labourers to increase the odds. Non *adivasi* women do not generally hire themselves out as field labourers. As *adivasi* households tend to hire out in *chuto* rather than *bandha* arrangements, and almost all women labourers are *adivasi*, it is likely that male sex decreases the odds of an arrangement being *chuto*. The labourer's age was not estimated sufficiently accurately in employers' diaries. Thus no age variable was used in this round.

JATIEMP - this refers to the *jati* of the employer. Here *jati* refers to *religion* alone. It is hypothesised that Muslim

employers are less likely to hire in labour through *bandha* rather than *chuto* contracts. All Muslim households in the locality live in Muslim para, in Kadapur. There are relatively few local labourer households in Kadapur. Most hired labour in Hindu para is supplied by recently settled labourers living in temporary accommodation provided by the para's main employer, N, who employs them via *bandha* arrangements. In the lean season local and recently settled labourers hired by sampled Muslim households are usually hired on a daily time rate basis through *chuto* arrangements. In the peak season Muslim employers hire a large number of migrant labourers and thus do not require a guaranteed supply of local labourers. One hypothesis for this divergence in labour hiring strategy is that male members of Muslim cultivator households work particularly hard on their own land. This has been suggested by Chakrabarti in his detailed study of agriculture in another village in Bardhaman District (1986, p168).

EMPRES - this referred to the para or neighbourhood of residence of the employer household. In the peak season, because Muslim households in Kadapur hired in mainly migrant labourers, this variable became a proxy for the labour-hiring practices of employer N (see previous paragraph). However, even in the lean season, the larger number of labour days hired in by employer N outweighed that hired in by all the sampled Muslim employers put together. It was thus hypothesised that if an employer resided in Kadapur, it would

increase the odds of an arrangement being *bandha* rather than *chuto*.

Results:

The employer's household's neighbourhood of residence and number of adult workers (and in the lean season the employer's *jati* and the worker's gender) had large significant effects on the odds of a particular day being worked in *bandha* rather than *chuto* (see the final model in table 17). Employer's wealth was also significantly related to the odds of *bandha*.

As predicted, employers on the Kadapur side of the river were more likely to use a *bandha* rather than a *chuto* contract on any particular day. This was in fact a reflection of the labour hiring practices of N's household, a large employer, who hired labour almost exclusively on a *bandha* basis. This could be explained by the shortage of local labourers in Kadapur and N's relatively recent settlement. Moreover, N was Baisnab by *jati*, and the Baisnabs of Kadapur were rivals of the Dhanpur Goalas¹⁹. Thus there was a need both to guarantee labour supply and to create a client following. N's son was a leading political figure in the Panchayat, having been Pradhan (Chair of the Gram Panchayat) from 1978 to 1988. In fact, his *rakhal* and *nagare* workers were settled in Kadapur

¹⁹J. Harriss (1993, p1243) has reported Baisnab-Sadgop rivalry in Jungul village in neighbouring Birbhum district. The rivalry there was based on the historical dominance of the Sadgops. Sadgops and Goalas are said to derive from the same Gop *jati* (Basu, 1962, p24).

Table 17: Logistic Regression on BANDHA, Employer Diaries

Lean season
DEPENDENT VARIABLE IS BANDHA

Independent Variable	B	Sig	R	Exp(B)
WEALTH	0.03	0.0001	0.19	1.03
WORKERS	-0.45	0.0023	-0.15	0.64
JATIEMP	-4.48	0.0001	-0.20	0.01
LBSEXDUM	3.36	0.0014	0.16	28.69
EMPRES	5.57	0.0000	0.25	262.37
constant	-2.72	0.0215		
Goodness-of-fit significance 0.7927. Number of cases = 240				

Peak season
DEPENDENT VARIABLE IS BANDHA

Independent Variable	B	Sig	R	Exp(B)
WEALTH	0.07	0.0000	0.15	1.08
WORKERS	-1.51	0.0000	-0.17	0.22
EMPRES	8.83	0.0000	0.34	6844.21
constant	2.76	0.0000		
Goodness-of-fit significance 0.0000. Number of cases = 745				

from their home village - also the birth place of their employer. They all belonged to the same Baisnab jati.

As hypothesised, the number of adult workers in an employer household was significantly and strongly negatively related to the odds of a contract being *bandha* rather than *chuto*. For each additional adult in the household the odds declined by 36 per cent in the lean season and 78 per cent in the peak.

In both seasons, WEALTH was found to have a significant positive relation to the odds of a day being worked in a *bandha* rather than a *chuto* arrangement. In the lean season, for each additional Rs 10,000 of employer household wealth, the odds increased by 3 per cent (8 per cent in the peak season). As employer households' wealth varied much more widely than that of labourer households (up to Rs 1.5 million, compared to a maximum of Rs 80,000 for labourers), this effect is not as weak as a direct comparison with the effect of differences in labourer household wealth (see table 16, above) might suggest.

In the lean season, JATIEMP was found to have a significant negative relation to the odds, indicating that, as expected in this locality, Muslim employers were more likely than others to use *chuto* rather than *bandha* arrangements.

The lean season data also suggest (as expected) a highly significant positive relation between a labourer being male

and the odds of a day being worked in a *bandha* rather than a *chuto* arrangement. However, there was no significant relation found in the peak season.

The goodness-of-fit statistic's significance level leads us to reject the hypothesis that the model fits in the peak season, though not in the lean. However, the signs and relative magnitude of the coefficients of significant independent variables in the peak season do not contradict the lean season results.

A summary of factors found significantly to affect the odds of an arrangement being *bandha* rather than *chuto* is provided in section 3.2.7.

3.2.6 The Odds of a Workday Being in a Seasonal Migrant Rather Than a *Chuto* or *Bandha* Arrangement

Logistic regression was next used to test the effect of selected independent variables on the odds that a particular work day in the peak season was in a seasonal migrant rather than a *chuto* or *bandha* arrangement.

Employer Records:

WEALTH - it was hypothesised that the wealth of an employer was positively related to the odds of a day being worked in a seasonal migrant rather than a *chuto* or *bandha* arrangement.

As wealth is measured largely in terms of landholding, relatively wealthy employers had relatively large landholdings. As this land was usually highly fragmented, there was a supervision constraint at times when work had to be completed on different plots simultaneously (a transaction cost arising from the imperfect information the employer had on the worker's effort, identified by Binswanger and Rosenzweig (1986) - see chapter 1). Therefore, there was a preference for gangs of labourers, who, once seasonally recruited, could be relied upon to supply labour as required. Migrant labourers, with (as employers saw it) less distraction from other possible sources of work, were recruited at certain times of year, including the *aman* paddy harvest. The arrears payment mechanism for the cash component of migrant labourers' wages added a control mechanism for employers, enabling them to retain migrant labourers for an agreed period, even if the labourers wanted to change the duration in the middle of the contract. Wealthier employers were also better able to provide accommodation in outbuildings, to advance travel costs as agreed at the time of negotiation and to bear the opportunity cost of the days lost in the recruitment and negotiation process.

LBSEXDUM - it was hypothesised that LBSEXDUM (the sex of the labourer) was negatively related to the odds that a particular work day was hired in via a seasonal migrant rather than a *chuto* or *bandha* arrangement. That is, we expected that if a labourer was male, the odds of a contract being seasonal

migrant rather than *chuto* or *bandha* were decreased. The reason for this was that non *adivasi* local labour selling households often excluded women from hiring out labour as it lowered their *jati* ranking. Seasonal migrants on the other hand, were often themselves *adivasi* and had less constraints on the hiring out of female labour. Moreover, other female migrants, including Muslims, also hired out labour regularly in the locality.

WORKERS - it was hypothesised that the number of workers in an employer household was positively related to the odds that a work day was in a seasonal migrant rather than *bandha* or *chuto* arrangement. Larger households were better able to bear the opportunity cost of lost days in negotiating with and recruiting migrant labourers.

Results:

As expected LBSEXDUM was found to be negatively related to the odds of a particular work day being in a seasonal migrant rather than a *chuto* or *bandha* arrangement (see table 18). If the individual labourer was male rather than female, the odds that he was a migrant decreased by 44 per cent. This is consistent with our observation that local women (other than those from *adivasi* households) tended to hire out labour very little, unlike women in migrant gangs.

Table 18: Logistic Regression on SEASMIG, Employer Diaries:

Peak season
DEPENDENT VARIABLE IS SEASMIG

Independent Variable	B	Sig	R	Exp(B)
WEALTH	0.01	0.0000	0.09	1.0078
WORKERS	-0.09	0.0042	-0.05	0.9155
LBSEXDUM	-0.58	0.0000	-0.11	0.5611
constant	0.83	0.0000		
Goodness-of-fit significance 0.5667. Number of cases 1891				

Contrary to expectations WORKERS was found to be negatively, though weakly, related to the odds of a contract being seasonal migrant rather than *chuto* or *bandha*. The odds of the contract of a particular labourer on a particular day being seasonal migrant rather than *chuto* or *bandha* declined by 8.5 per cent for every additional adult worker in the employer household. This could be explained by the smaller supervision problem faced by households with a larger number of workers, especially in cases where there was a high ratio of males to females. Migrant gangs with their own leaders and lacking other obligations locally needed less supervision. In employer households with a large ratio of females to males, the supervision constraint would be less likely to be relaxed given that women from employer households did not supervise labour.

WEALTH was found to positively, though weakly, affect the odds that a work day was in a seasonal migrant rather than a *chuto* or *bandha* arrangement as expected (see table 18). Thus we can conclude that wealthier employer households were more likely than others to hire seasonal migrants over local labourers.

3.2.7 Summary of the Logistic Regression Results

The logistic regressions suggest that relatively poor labour selling households are more likely than others to enter *bandha* arrangements, which involve a seasonal obligation to a particular employer based on wage advances. However,

households with relatively large numbers of potential workers are more likely to deploy at least one member to a *bandha* arrangement than smaller households, or those with large numbers of dependents. There was strong evidence that 'adivasi' workers were relatively less likely to enter *bandha* arrangements in the peak season. Older workers entered *bandha* arrangements more often than younger workers.

Wealthy employer households are relatively likely to hire in via a *bandha* arrangement, although, given wealth, employer households with fewer adult workers were more likely to hire labour via *bandha* arrangements. One of the biggest employers hired in most labour on seasonal or annual duration contracts. The domination of labour exchange in one *para* by this employer was reflected in the regression, which showed employers from that *para* to be infinitely more likely than employers from other *para* to hire in via *bandha* rather than *chuto* arrangements. There was strong evidence that Muslim employers were less likely to hire in via *bandha* arrangements, while the labourers hired through *bandha* were many times more likely than *chuto* labourers to be male.

Wealthy employers were also found more likely than others to hire a high proportion of seasonal migrants to local labourers in the peak season. If a day was worked by a male labourer, it reduced the likelihood that the arrangement was seasonal migrant rather than *chuto* or *bandha*. Employer households with

relatively small numbers of workers were likely to hire in a greater proportion of migrants to locals than other employers.

The deployment of individuals from poorer labour-selling households to *bandha* arrangements and the tendency of wealthier employer households to hire in relatively more via *bandha* arrangements evinces the embeddedness of labour arrangements in the land-holding structure. Moreover, the evidence that *adivasi* workers, women workers generally and Muslim employers were less likely to be involved in *bandha* arrangements suggests that arrangements were further embedded in gender and caste ideologies.

NIE explanations for labour-tying based on 'risk-sharing', 'recruitment cost' and 'supervision cost' are not contradicted by this analysis, however. All could be said to operate: the workers involved in seasonal ties tend to be relatively poor (ie closer to 'landless') and the employers relatively wealthy. It is plausible that poorer labour-selling households would face higher risks of reduced consumption in the lean season and seek subsistence guarantees, while wealthier employer households would face a relatively high risk of labour shortage in the peak season. Moreover, employer households with fewer adult workers might place a higher premium on reducing recruitment cost, achieved here by securing labour supply in advance (whether through *bandha* or seasonal migrant arrangements). It could also be argued that the personalised basis of seasonal beck-and-call arrangements

reduced supervision costs on fragmented plots, which would be particularly valuable to relatively wealthy employers with large landholdings.

3.3 INTRA-CONTRACTUAL DIVERSITY IN THE BARDHAMAN LOCALITY

In the review of literature in chapter 1, it was argued that the division of labour contracts into "casual" and "attached" disguised the overall power configuration between parties to the arrangement (see sections 1.2.7 and 1.3.3). Similarly, in discussions of remuneration, a focus on wage rates alone neither distinguishes which party has the balance of advantage nor indicates the "price" of labour²⁰. Rudra and Bardhan state at the start of their book that it is "necessary to take account of all the ... attributes or aspects of employer-employee relations to understand the nature and degree of attachment of labourers to employers" (1983, p1; see also Bardhan and Rudra, 1981, p89). Ramachandran also describes specific forms of intra-contractual variation, including variation in the forms of payment, the unit by which payment is calculated (eg piece rate, time rate) and the duration of a contract (1990, p189).

However, some attributes or components of labour arrangements such as the degree of obligation between employers and employees, and the actual duration of a loose priority

²⁰Contrary to the implicit equivalence between wage and utility made by Datta et al (1989, p93).

relationship are not quantifiable²¹. Thus I have selected eight measurable attributes of labour arrangements and will attempt to explain variation in each of them where it occurs. These attributes are defined below:

duration - the length of the arrangement (where known).

earnings - the amount due to the worker in exchange for a particular day's work.

hours of work - the number of hours between the beginning and end of the work day, net of breaks.

form of payment - the form or combination of forms in which payment is made. Cash based payment refers to payment made either wholly or chiefly in cash. Kind based payment was defined in a parallel manner.

time of payment - indication of whether payment was made in advance of the work, on the same day, or in arrears, encapsulating the whole payment. If a portion was paid in advance, say, and another part paid in arrears, the time of payment variable would read "part advance, part arrears". It was not possible to record the actual timing of payment, especially as, in the case of arrears payments, this was not

²¹The degree of obligation refers to the extent to which an arrangement involves commitment by a labourer to work for a particular employer at some time in the future. As Rudra and Bardhan point out (1983, p2), there is no strict division between those employees who are obliged to an employer and those who are without such an obligation. "Loose priority relationship" refers to the grey area inbetween.

known on the day when the employment record was completed. It should be noted that "earnings" ignores variations in timing, aggregating payments already made, those made on the day of work and those to be made in the future into a single figure.

type of work - variation or lack of it in the type of work indicates the extent to which the terms and conditions of an arrangement are associated with a particular task or vice versa. In seeking explanations for aspects of inter and intra-contractual diversity, it is necessary to consider the range of tasks carried out in each particular arrangement.

payment regime - the unit by which the payment is calculated, say for example per hour (time rate) or per unit land area (piece rate). Workers were not remunerated by 'harvest shares' (a third type of payment regime) in either locality, although such payment is common elsewhere in India (see section 1.2.6 and 5.3.2).

work organisation - defines whether labourers are hired on a gang/group or individual basis.

As each indigenous arrangement type defines payment regime, duration and work organisation, no intra-contractual variation was found in these attributes. Table 19 shows how all three arrangements for which there were a large number of observations among sampled households, exhibited diversity in at least four components. The only evidence of

Table 19: Intra-Contractual Diversity in the Bardhaman locality:

Source of variation	Contract type		Seas. Mig.
	chuto	bandha	

Wage/earnings	Y	Y	Y
Hours per day	Y	Y	Y
Type of work	Y	Y	Y
Main form of payment	N	N	Y
Time of payment	Y	Y	N
Y = yes			
N = no			

standardisation was the form of payment for *bandha* and *chuto* arrangements and the time of payment for seasonal migrant arrangements.

In the remainder of this section, I analyze variation in the selected attributes for each indigenous type of labour arrangement. Both here and in the analysis of intra-contractual diversity in the Purulia locality (section 4.3), I avoid using a distinction between 'skilled' and 'unskilled' labour. Its use, for example in the context of bullock cart driving, might imply wrongly that activities such as cutting, binding and threshing paddy were unskilled. Nevertheless, where it is apparent that shortages of certain specific skills affected the remuneration package, this factor is highlighted.

3.3.1 *Chuto* Arrangements:

Chuto arrangements run for one to about ten days. A daily earnings rate brokered locally by the CPI(M) was fairly rigidly maintained²². During the fieldwork period payment was usually made to both men and women at the going rate of Rs 12 and 2 kg hulled rice per day²³. Although *chuto* employment was based on a time rate, hours of work sometimes varied between activities, especially when they were subject to mutually understood minimum amounts of work done.

²²See Dwaipayan Bhattacharyya (1993, pp224-228) for detailed description of the wage brokering process in another part of West Bengal.

²³In November-December 1992, it rose to Rs14 and 2 kg rice per day.

Table 20 illustrates the number and proportion of days hired in and out by sampled employers and labourers in the two seasons. The reason for the divergence between seasons in the proportion of days sampled employers hired in was the very high proportion of migrant labourers hired on seasonal contracts in the peak season (see section 3.3.3).

Table 21 illustrates the number and proportion of sampled households and individual sampled labourers in *chuto* arrangements. In both seasons more sampled labourers worked in this arrangement than in any other. In the peak season all but 6 *chuto* days were hired in by employers resident in Dhanpur. Sampled employers in Kadapur entered seasonal arrangements, whether with seasonal migrants or with locals under *bandha* contracts.

Chuto arrangements corresponded to a single form of payment (kind plus cash), duration (one to a few days) and payment regime (time rate) in both seasons. However, they exhibited diversity in earnings, hours worked and type of work in both seasons and in timing of payment in the lean season. These four components are discussed below.

Table 20: Number and Proportion of Days Hired In and Out via Chuto Arrangements:

	Season	No.	%

Employers	Lean	108	27
hiring in	Peak	307	15
Labourers	Lean	113	32
hiring out	Peak	303	36

Table 21: Number and Proportion of Sampled Households and Individual Labourers in Chuto Arrangements:

	Season	No	%
Individual labourers	Lean	25	66
	Peak	28	74
Labourer households	Lean	18	72
	Peak	20	80
Employer households	Lean	12	100
	Peak	13	81

Earnings:

Chuto earnings ranged from less than 2 kgs of hulled rice equivalent in the lean season to over 5 kgs in the peak. A relation between earnings and hours worked was found only in peak season labour records which showed a Pearson's correlation coefficient of 0.6322 significant at the 1 per cent level. All other variation in earnings also indicated variation in the effective wage per hour. However, despite the range of earnings, the vast majority fell within the modal range of 4.1 to 5 kgs. The actual proportion in the modal range varied in degree between the lean and peak seasons as shown in table 22.

The higher proportion of earnings observations falling in the modal range in the peak season suggests the convergence of earnings in conditions of relatively high demand for labour.

The 15 days worked by sampled labourers in the peak season for below 3.1 kg per day involved two individuals. Both were widows, one, A, a Bagdi ('untouchable') from Santra para and the other, B, a Muslim. These were the only exceptions to the rule that women from local Bagdi and Muslim households did not hire out labour. A was employed for 7-10 hours on most days in domestic tasks, such as cleaning rice and washing clothes. On two days she cleaned the employer's cow shed and cut straw for livestock feed. On two other days, she worked at storing paddy into the *morai* and threshing. Even for these tasks she

Table 22: Distribution of Chuto Person Days by Earnings:

		(percentage of days) kg of hulled rice equivalent					
		0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1+
Employers hiring in	Lean	0	0	1	13	80	6
	Peak	0	0	0	1	96	3
Labourers hiring out	Lean	0	7	7	11	74	0
	Peak	1	1	3	0	95	0

was paid only the equivalent of 1.6 or 2.6 kg of hulled rice per day. This was much less than the going rate for *chuto* arrangements, equivalent to over 4 kg of hulled rice. The other woman, B, worked on two evenings, making *ata* (dough) (two hours) and husking rice by *dhenki* (three hours). For the former she received 1 kg of rice and for the latter 2 kg. The household she was employed by was headed by W, and was one of the most prosperous households in the locality. These cases indicate that poor widows do break through the boundaries on hiring out labour applied to other women. However, it may be because of the self-exclusion practiced by other Bagdi women that A did not receive the remuneration which she would have received had she been a man or a Santal woman. The six different employers she worked for were all able to pay her at less than the going rate.

In the lean season, employer diaries recorded four workdays at higher than modal earnings²⁴. These were accounted for by one employer, C, who paid the equivalent of 5.5 kg hulled rice per day twice for thatching and twice for harvesting jute. In all these cases the work lasted 7 hours, which was unexceptional. Employment in these tasks was uncommon, however, and may have been associated with premium earnings. Most unusually, one of the two labourers employed, M, was from Dhanpur Ghosh para, a man of Goala *jati*, which did not normally hire out labour. The other labourer involved, R, was from Bangal para. Both were in their fifties. By examining outlying values, we have

²⁴Eighty-six days were recorded at modal earnings.

found that the occurrence of exceptionally high or low payments in *chuto* arrangements was associated with the breaking of ideologically informed barriers to employment.

There was no association between caste or employer's residence and *chuto* earnings in the range 3.1-5 kg. However, the spread of earnings among Dhanpur employers was greater than that among Kadapur employers, as is shown in table 23. This suggests a stricter adherence to the CPI(M) brokered wage rate of Rs 12 and 2 kg of hulled rice (equivalent to approximately Rs 24 in the lean season) in Kadapur than Dhanpur, confirmed by the non-availability of *phuron* arrangements in Kadapur and by Dhanpur employers' greater readiness to negotiate higher rates for migrant labourers.

The distribution of earnings among employers by *jati* was almost identical to that by residence locality, as lean season employers resident in Dhanpur were all classified as of Goala *jati*. Most of the *chuto* earnings in Kadapur were paid by Muslim employers, as N, the important Baisnab employer, hired in only three days labour under *chuto* arrangements. No relation was found between earnings and hours worked, the age or sex of the worker, or the size or wealth of the employer household. This is further evidence of the effective maintenance of a local "going rate". However, an exploration of exceptions follows.

Table 23 The Distribution of Lean Season Work Days Hired in via Chuto Arrangements by Earnings (Outliers Excluded) and Employer Residence:

Residence of Employer	Earnings (kg of hulled rice equivalent)					
	4.0	4.1	4.2	4.3	4.5	4.7
Dhanpur	9	23	23	6	11	2
Kadapur	0	17	10	3	0	0

Five individual labourers reported earnings below 3 kg for work in a *chuto* arrangement in the lean season. Four men worked with straw for three different employers, one thatching and the others binding bundles of straw. Hours worked ranged from 5 to 7 but earnings were exactly half of the going rate. The payment was Rs6 and 1 kg of hulled rice (one labourer received one and a half kg of rice). This could be evidence of credit provision tied to labour at less than the going rate (*dadon*, cf Singha Roy, 1992; J. Harriss, 1983; P. Bardhan, 1984, pp86-7). However, there was no discussion of such an institution in the Bardhaman locality (unlike in the Purulia locality, see Chapter 4).

The fifth labourer was A, who, as in the peak season, worked variously cleaning cowsheds, boiling paddy, cutting straw and sometimes combining one of these activities with threshing paddy. She worked for 10 days for between 1.4 and 2.9 kg per day, the higher payments occurring on the days when she threshed paddy. Her hours of work ranged from 4 to 12. Unlike in the peak season, all but two days were worked for one employer, Br. The others were for S.

No relation was observed on crosstabulations of non outlier earnings and the residence, *jati*, settlement history, size or wealth of the labour household, nor between earnings and the age or sex or hours worked of individuals.

Hours worked:

Table 24 shows the distribution of days worked in *chuto* arrangements according to their length. The modal range of hours worked was reported as longer in the peak season than in the lean by both employers and labourers. As earnings remained relatively constant this implied a lower effective wage rate per hour in the peak season. Hours were not fixed in either village. Certain tasks were subject to norms of physical achievement. For example, employers expected threshing to continue until the labourers had threshed one *anti* (bundle) each on any single day.

Interseasonal differences in hours worked were greater according to labourer records than employer records. This may partly have been due to reporter bias, with some employers perhaps wishing to present a favourable view of employment relations and some labourers an unfavourable one. The reported figures from both groups still show a greater concentration of hours in the modal values in the peak season than in the lean, adding further evidence to suggest that contractual conditions generally converged at that time.

Observations of six hours or less were accounted for in the labour records by B's domestic work as well as by A, M, G and Bu, corresponding to several of the cases of particularly low earnings discussed above. There were only two such cases in

Table 24: Distribution of Days Worked in Chuto Arrangements by Length of Working Day:

Hours		% of days											
		1	2	3	4	5	6	7	8	9	10	11	12+
Employers hiring in	Lean	0	0	0	0	1	1	51	13	34	0	0	0
	Peak	0	0	0	0	0	0	0	53	46	0	0	0
Labourers hiring out	Lean	0	1	0	1	1	4	15	33	36	4	2	4
	Peak	1	1	0	0	0	0	1	15	43	38	2	0

employer records, reported by different employers for weeding work. In one of these cases, earnings remained at the modal level, while in the other the worker received the equivalent of 2.4 kg.

Type of work:

In the lean season almost 60 per cent of person days in *chuto* arrangements involved weeding of paddy (56 per cent of days hired out by sampled labourers and 59 per cent of days hired in by sampled employers). The remaining person days were scattered thinly among a variety of other crop production activities as well as a few days in livestock associated work, crop processing and non-agricultural activities (see table 25). There was no overall correspondence with the sex and residence locality of labourers. However, crosstabulations of type of work with the sex, age and residence location of the labourer revealed that the separation of jute fibres (aggregated into "crop processing" in the table below) was a male activity. The data also indicated the exclusion of Santal and other *adivasi* workers from livestock oriented work, such as milking, preparing food, and cleaning the cow shed. This is consistent with the absence of *adivasi* labourers from *rakhal* and *nagare* arrangements via which most livestock oriented work is performed.

In the peak season labourers were employed in *chuto* arrangements for threshing cut paddy (45 per cent of days

hired in and 17 per cent of days hired out) and ridging up potatoes (25 per cent and 14 per cent respectively). Combinations of different activities involving paddy such as cutting, stacking and carrying or both paddy and potato tasks were also widely reported. Neither men nor women labourers were absent from the main categories of operation, although women accounted for larger proportions of days spent threshing paddy than ridging up potatoes.

Time of Payment:

Variations in timing of payment for *chuto* work took place in the lean season when 82 per cent of labour records and 62 per cent of employer records reported payment timing as partly on the day of work and partly in arrears (see table 26). The tendency was for the kind portion (2 kg hulled rice) to be paid on the day of work and the cash portion (Rs 12) to be paid later. However, most of the remainder of person days were rewarded entirely in arrears. In the peak season 95 per cent of labour diaries and 99 per cent of employer ones reported *chuto* payments to have been made as expected with the cash portion in arrears and the kind portion paid on the day of work.

3.3.2 Bandha Arrangements

The duration of *bandha* arrangements was typically a season, such as *aman* harvest. However, some labourers repeated the

Table 25: Distribution of Days Worked in Chuto Arrangements by Type of Work:

Type of work	(percentage of days)		(percentage of days)	
	Employers hiring in Lean	Peak	Labourers hiring out Lean	Peak
Weeding	59	0	56	0
Cutting paddy	8	1	11	10
Binding paddy or straw	0	1	4	1
Stacking paddy or straw	0	9	0	1
Threshing paddy	1	17	0	45
Transplanting	0	0	2	0
Plant potatoes	0	2	0	2
Ridge up potatoes	0	25	0	15
Irrigation	1	2	0	1
Carrying	1	4	5	5
Fieldwork combinations	11	35	5	16
Livestock care	5	0	10	1
Crop processing	9	1	2	0
Nonagric.	2	0	3	0
Other	4	2	0	2

Note: The columns do not add up to 100 because of activities scoring less than 0.5 per cent, which have been rounded down to zero scores here.

Table 26: Distribution of Chuto Days Hired in and out by Time of Payment:

Time of payment	(percentage of days)		(percentage of days)	
	Employers hiring in Lean	Peak	Labourers hiring out Lean	Peak
In full, same day	27	1	16	5
Part same day, part later	59	99	82	95
Parts in advance, same day and later	0	0	1	0
Part in advance, part same day	1	0	1	0
In full, later	13	0	0	0

arrangement for several consecutive seasons with the same employer. They were often entered in the context of a labourer's requesting an advance in cash or kind from the employer. Acceptance of the advance entailed a commitment on the part of the labourer to supply labour power as required by the employer-creditor and only to hire out to other employers on other days.

Tables 27 and 28 show the number and proportion of days hired in and out in *bandha* arrangements, as well as the number and proportion of sampled labourers and employers involved. The number of days hired in and out increased between the two seasons. However, the proportion of days hired in declined because of the large increase in seasonal migrant arrangements. Table 28 shows the majority of both individual sampled labourers and sampled employer households to have engaged in *bandha*. This suggests that labour hiring was not predominantly via "casual" daily time rate arrangements. That this observation is made in an agriculturally advanced area of West Bengal is particularly important as it has often been assumed by teleologically inclined Marxists that development of the forces of production is associated with capitalist labour relations and thus with the 'freedom' of labourers both from ownership of the means of production and to hire out labour to any employer at any time. Rudra (1987) found a similar reversal of this assumption in a comparative study of Bankura and Bardhaman districts.

Table 27: Number and Proportion of Days Hired In and Out in Bandha Arrangements:

		No	%

Employers hiring in	Lean	133	33
	Peak	455	22
Labourers hiring out	Lean	116	33
	Peak	427	51

Table 28: Number of Labourer Individuals and Households and Employer Households Entering Bandha Arrangements:

		No	%

Individual labourers	Lean	18	47
	Peak	24	63
Labourer households	Lean	13	52
	Peak	18	72
Employer households	Lean	6	50
	Peak	7	50

Bandha arrangements exhibited diversity in earnings, hours worked per day, time of payment and type of work. Form of payment and payment regime were defined by the arrangement. Payment per day worked was calculated at the daily rate of Rs 12 and 2 kg of hulled rice. Degree of obligation and duration did vary to the extent that *bandha* labourers, who attached themselves to the same employer in consecutive seasons could be distinguished from those who changed employers or changed contractual form at the end of a season. Although sampled labourers and employers were asked about the duration of the arrangement and other obligations owed by or to particular employers or labourers respectively, most such information was gathered by observation.

Earnings:

The 'going rate' for *chuto* of Rs 12 and 2 kg rice applied to *bandha* workers and thus the daily earnings of *bandha* workers in both seasons were heavily concentrated in the same modal range (4.1-5 kg) (see table 29). In the lean season, however, the 15 per cent of observations in the employer records and 19 per cent in the labourer records that were outside that range all indicated lower earnings. 12 cases of earnings of less than 3.1kg of rice per day were recorded. Of these, nine were worked by individuals from the household headed by S, a recently settled *adivasi* household living in accommodation owned by their Muslim employer in Namosudra para. The low payments were made to S, his wife and son for a variety of

Table 29: The Proportion of Bandha Days in Each Observed Earnings Range:

		(percentage of days)				
		kg of hulled rice equivalent				
		0-1	1.1-2	2.1-3	3.1-4	4.1-5
-----		-----				
Employers	Lean	0	0	2	13	85
hiring in	Peak	0	0	0	0	100
Labourers	Lean	1	7	0	11	80
hiring out	Peak	0	0	0	0	100

agricultural operations including weeding, spraying insecticide, and cutting and threshing early varieties of paddy. In all these cases, the employer was W, the household's main creditor and owner of their temporary homestead. In this *bandha* arrangement, the employer could require the labourers' services for less than a whole day and remunerate them at half the daily rate. However, according to the labourers' own records, 6 or 7 hours were worked on most of these "half pay" days, considerably more than half the standard length of the lean season working day reported by labourers. This could plausibly be interpreted as implicit interest on wages paid in advance. It is certainly further evidence of the *personalised* character of labour relations²⁵.

Two other labourers both working for Muslim households in Kadapur worked on half pay for 4 hours on separate occasions.

In all these cases the labourers involved were among the poorest in the locality. In the lean season records kept by labourers, all those who worked half days and were paid half earnings came from the poorest, landless households (not counting assets owned in their villages of origin). All these labourers were employed in Kadapur, where the pool of labourers was made up largely of recent settlers and seasonal

²⁵This case illustrates how the provision of accommodation can reduce a labour-selling household's degree of 'choice' of employer and type of labour arrangement. However, such provision was not observed to be systematically associated with any particular type of arrangement, except in the case of seasonal migrant arrangements, which almost always included temporary shelter (see chapter 5). Future studies of inter- and intra-contractual diversity could usefully build in 'provision of accommodation' as a variable.

migrants. This suggests that the growth of agricultural production, combined with the attempts at Sanskritisation by local labour selling *jati* (eg Bagdi households), may have enabled employers in Kadapur to cultivate a labour force, to which they had no historical tie and, in the case of N, to use *rakhal* and *nagare* workers of the employer's own caste to act as a separate tier of workers loyal to the employer. Such a labour force would not fit into Rudra's model of a village where the social relations of production were profoundly influenced by barriers to entry by outside labourers (see Chapter 5).

Hours of work:

There were no fixed hours for a day's work in *bandha* arrangements (see table 30). The proportion of days when 10 or more hours were worked was higher in the peak than in the lean season.

Hours became a matter of political dispute in Kadapur in February 1991 when a group of workers active in the CPI(M) pointed out that piece rate arrangements were not available to them, in contrast to workers on the other side of the river in Dhanpur. They demanded fixed hours in return for the lack of alternative to time rate arrangements. The demand was agreed by employers in the village and hours were apparently set at 8 per day. This was not without some resistance by CPI(M) activist employers, who argued that the labourers had rarely

Table 30: Distribution of Days Worked in Bandha Arrangements by Length of Working Day:

		(percentage of days)								
Hours		3	4	5	6	7	8	9	10	11

Employers	Lean	0	0	0	0	40	15	36	8	0
hiring in	Peak	0	0	1	0	1	40	50	21	0
Labourers	Lean	3	4	3	1	10	25	43	9	1
hiring out	Peak	0	0	0	0	0	13	42	37	8

supported the party's campaigns in the past and that they should not be supported on this issue. It was the first time the labourers had dared to challenge the dominant party members in Kadapur.

The few cases of labourer records, in which less than 7 hours were worked occurred mainly in the lean season. This was largely accounted for by the "half day" pay arrangements (see previous section on earnings).

Type of Work:

The distribution of days worked in *bandha* arrangements between different types of work is illustrated in table 31, which indicates that the *bandha* form of labour arrangement was not associated with any particular agricultural operation. The majority of days worked in the lean season were spent weeding paddy and in the peak season most person days were spent either cutting paddy, threshing paddy or ridging up potatoes.

The range of activities and their relative importance in terms of the proportion of days worked does not differ markedly from those of *chuto* arrangements (see table 25, above). No relation between type of work and labourer characteristics was visible from crosstabulations, although no women worked in the combination of carrying cut paddy with another paddy task (such as cutting paddy). Just as for *chuto* arrangements a

Table 31: Distribution of Days Worked in Bandha Arrangements by Type of Work:

Type of work	(percentage of days)			
	Employers hiring in		Labourers hiring out	
	Lean	Peak	Lean	Peak
Weeding	63	0	62	0
Cutting paddy	3	15	12	8
Binding paddy or straw	0	1	1	1
Stacking paddy or straw	0	4	0	4
Threshing paddy	1	26	3	37
Winnow paddy	0	0	0	2
Plant potatoes	0	1	0	4
Ridge up potatoes	0	13	0	11
Irrigation	0	1	0	2
Earthwork	0	0	0	1
Carrying	1	4	1	8
Livestock care	7	1	8	2
Fieldwork combinations	16	31	12	19
Crop processing	0	2	2	1
Other	2	1	1	0

relatively high proportion of days were spent in combinations of fieldwork activities.

Time of Payment:

Most *bandha* workers were either paid the kind portion on the same day and the cash portion in arrears or part of the payment in advance (see table 32). The proportion of days reported as paid for by advances ranged from 0 to 26 per cent with labourers reporting a higher proportion in the peak than the lean season and employers reporting the opposite. It is likely that these discrepancies can be accounted for as underreporting of advance payments. This could have been motivated in the case of employers by a reluctance to be seen as creditors. It is more likely, however, that, given the repeated nature of work for the same employer, *bandha* records were not always filled in with sufficient care.

3.3.3 Seasonal Migrant Arrangements

More person days were hired in via seasonal migrant arrangements than via any other by sampled employers in the peak season. 1130 days were hired in, 55 per cent of the total. There were hardly any migrants (and none working on

Table 32: Distribution of Days Worked in Bandha Arrangements by Time of Payment:

Time of payment	(percentage of days)			
	Employers hiring in		Labourers hiring out	
	Lean	Peak	Lean	Peak
In full, same day	8	1	0	1
Part same day, part later	66	99	83	90
Parts in advance, same day and later	0	0	16	0
Part in advance, part same day	26	0	1	9

seasonal contracts) in the lean season²⁶. 21 days were worked by migrants in *chuto* arrangements and 6 in *phuron* arrangements (see section 3.3.5) in the peak season.

The precise form of seasonal migrant arrangements depended on, among other things, the means of recruitment (see Chapter 5). Cash payment was made at the end of the work period, enabling the employer to prevent early departure. This clearly distinguished the arrangement from the local seasonal duration arrangement, *bandha*, in which payment was often made at least partly in advance.

Seasonal migrant labourers were not included in the sampling population. However, interviews were carried out with as many *dol* (labour gangs) as possible. The omission of migrants from the main sample was due to the difficulty of establishing the numbers and locations of all migrants in the village. Also, employers in Dhanpur appeared particularly suspicious when they found us focusing our attention on migrant labourers. Moreover, as the other locality selected for a fieldwork location was a source of migrant labourers to Bardhaman District, I was able to develop close rapport with migrants outside the territory of Bardhaman employers. Breman deliberately sampled labourers and employers from different

²⁶However, at least one employer (not included in the sample) was found to be maintaining a seasonal contract with migrants in Bhadra-Aswin (mid-August - mid-October) 1993.

villages, in order to avoid conflicts of interest in his fieldwork (1985a)²⁷.

Seasonal migrant arrangements exhibited diversity in degree of obligation, earnings, hours of work, form of payment and type of work. The arrangement type was associated with a split time of payment, any cash portion being paid at the end of the season. Payment regime was uniformly time rate. Although payment was made per individual per day worked, migrant labour was often deployed in gangs.

Earnings and Degree of Obligation:

Most daily rates were set at the "going" locality rate of Rs12 and 2kg of hulled rice, equivalent to a total of 4.1-5kg of hulled rice (see table 33). Variations from modal earnings were found in the case of four employers of seasonal migrant labourers. Three major employers of Dhanpur paid higher than modal rates per person day. This reflected the willingness of Dhanpur employers to negotiate above the CPI(M) brokered floor rate in the recruitment of peak season migrant workers. This was not the case in Kadapur, although lower than modal earnings were found for one employer there.

²⁷In the part of Gujarat where Breman carried out much of his fieldwork, the interests of workers and employers in agriculture were so blatantly opposed that an attempt to study workers in one village would have aroused deep suspicion (even hostility) among employers in that village and vice versa.

Table 33: The Distribution of Days Worked in Seasonal Migrant Arrangements by Daily Earnings:

		(percentage of days) kg of hulled rice equivalent		
		3.1-4	4.1-5	5.1+

Employers	Peak	3	82	14
hiring in	Lean	na	na	na

This interpretation of the negotiating stance of Dhanpur employers was supported by observation of an employer's representatives preparing an upper and lower limit before discussion with groups of migrant labourers arriving at the main bus stand in Bardhaman town. Kadapur employers tended to hire a greater proportion of migrants from areas of western West Bengal (Purulia and Bankura districts) and Bihar (especially Singhbhum district), with which they had established long term links. One means of recruitment was to send recent settlers back to their own villages just before the peak season. Such links enabled the Kadapur employers to hire in seasonal migrants at the CPI(M) brokered wage. While similar continuities were evident in Dhanpur, the majority of migrant workers there were hired at bus stands and came mainly from north and central West Bengal (West Dinajpur, Malda, Murshidabad and Jalpaiguri districts).

Form of Payment:

Almost all migrants received shelter in a thatched outbuilding belonging to the employer and within his para. There were two forms of daily payment for the seasonal migrants. The most common was 2 kg of hulled rice and Rs 12 in cash. 89 per cent of days worked were remunerated in that form. Variations of this form also existed - migrants were given the option of taking 1.5 kgs of rice together with a vegetable or some dal, cooking fuel (usually straw) and oil. A few received cooking fuel in addition to the full measure of hulled rice.

However, 11 per cent of days worked were remunerated in cooked food in place of the cash portion. This provided a higher quality diet than that possible with the kind payment because it consisted of the same variety of food eaten by members of the employer household. As it was consumed in the employer's home the status of the small number of migrant workers receiving it was enhanced. Employers reinterviewed in October 1993 reported that providing food had a morale-boosting effect on the migrants. Food payments were thus considered to be efficiency wages - although the total cost to the employer was higher than providing uncooked kind payments because of the labour involved in preparation, the morale effect on output was perceived as justifying the extra cost.

Table 34 shows the extent to which four employers paid migrants in food and cash as opposed to kind and cash. These employers were all Hindu; no Muslim in the sample provided cooked food to migrant labourers. Although migrants were employed only by households in the wealthiest two asset ranks, there was no visible relation between asset rank and the form of payment, nor between the form of payment and the number of workers in the employer's household.

Hours of Work:

On most days, seasonal migrants worked either 8 or 9 hours. However, there were a small proportion of observations of both shorter and longer days (see table 35).

Table 34: Employers Paying Seasonal Migrants in Cooked Food in Place of the Kind Component of the Wage:

Employer household number	No. seas. mig. days paid in food and cash	Total seasonal mig. days	Total seas. contract days incl bandha
9	61	61	61
12	14	77	94
14	4	273	303
40	44	87	342

Table 35: The Distribution of Days Worked in Seasonal Migrant Labour Arrangements by Hours Worked:

		(percentage of days) hours			
		7	8	9	10

Employers	Peak	1	59	38	2
hiring in	Lean	na			

Table 36: Distribution of Days Worked in Seasonal Migrant Arrangements by Type of Work:

Type of work	(percentage of days) Employers hiring in Peak

Cutting paddy	21
Binding paddy	
or straw	1
Stacking paddy	
or straw	3
Threshing	
paddy	31
Winnow paddy	2
Plant potatoes	2
Ridge up	
potatoes	5
Carrying	4
Livestock care	1
Fieldwork	
combinations	29
Other	1

Type of Work:

Seasonal migrant labourers were employed in a wide variety of activities (table 36, above). However, they tended to work predominantly in the paddy harvest rather than with the potato crop. This tendency was reflected in the high proportion of paddy oriented activities they carried out which were subsumed into the category 'fieldwork combinations'. Indeed 14 per cent of days worked involved the cutting of paddy combined with carrying cut paddy to the threshing ground. In crosstabulations, no visible relationship was revealed between the age or sex of the migrant and the types of work undertaken.

3.3.4 Nagare and Rakhal Arrangements

The usual length of a *nagare* arrangement was a year beginning 1st Magh (mid January). The standard payment rates were as *chuto* and *bandha* (Rs 12 and 2 kg of rice per day). Accounting - balancing any advances against work done - took place at the end of the month.

A number of Goala *jati* households in Dhanpur and one Baisnab *jati* household in Kadapur were involved in the production of milk for sale. The tasks of the *rakhal* included cleaning the cattle-sheds, preparing fodder, feeding and milking the animals.

The number and proportion of days hired in and out by sampled labourers and employers in *nagare* and *rakhal* arrangements is shown in table 37.

Rakhal and *nagare* arrangements were important in terms of the number of days hired in to the larger employers involved. However, they were less significant in terms of numbers of individual labourers. Only three sampled employer households hired in *rakhal* workers and just one a *nagare* worker. Of the sampled labourers, two from one household hired out as *rakhal* and two others hired out as *nagare*. By coincidence, all but one of the sampled *rakhal* and *nagare* labourers were hired in by sampled employers. Interviews with key informants suggested that the numbers of *rakhal* and *nagare* arrangements in the two villages were declining.

All four employer households hiring in *rakhal* or *nagare* labourers belonged to asset rank 1 (the wealthiest group). All were Hindus, three of the Goala caste and one Baisnab. All the *rakhal* and *nagare* labourers were men and none were recent settlers or migrants. The labourers in Dhanpur were local labourers from Santra para. Those in Kadapur belonged to the same *jati* and *para* as their employer. However, they could not be described as local labourers as at least one of them had been asked to move into the locality by his employer, who also owned land in the labourer's village of birth. As

Table 37 Number and Proportion of Days Hired in and out in N3qare and Rakhal Arrangements:

	Season	No	%

Employers	Lean	147	37
hiring in	Peak	111	5
Labourers	Lean	75	21
hiring out	Peak	91	11

the labourers and employer were caste fellows, it was possible for the employer to cultivate a greater degree of dependence, creating a loyal clientele. These labourers lived on land provided by the employer for their homesteads. Their wives carried out unpaid domestic work in the employer's household²⁸. The contracts have been extended for several years. In contrast, three out of four of the attached labourers in the Dhanpur sample switched employers during the fieldwork period.

Because of the small sample size, it is not possible to explore intra-contractual diversity to the same extent as for *chuto* or *bandha* arrangements. However, the daily records did reveal diversity within these contractual arrangements in daily earnings, hours worked per day, form of payment and type of work. Table 38 illustrates the variations in earnings and forms of payment to *rakhal* and *nagare* workers in the sample. The diversity reflects the negotiability of these contract types. The time of actual payment was not recorded in the employer and labourer records. The main duties of a *rakhal* worker revolved around livestock, preparing feed, cleaning sheds and, in one case, milking. However, in the peak season they were also required to contribute to crop production (see table 39). The one *nagare* worker in the sample assisted a *rakhal* working for the same employer and sometimes stood in

²⁸However, during the revisit to the locality in October 1993, it was observed that a former *rakhal* labourer from Kadapur had begun a full-time retail fish trade. His wife continued to work occasionally in the employer's household.

Table 38: Payments to Rakhal and Nagare Workers:

LABOURER NUMBER	EMP NO	CLOTHES	CASH	FOOD	KIND	OTHER	MEAN DAILY EARN- INGS
1 (NAGARE)	40		Rs12 pd		2kg rice pd	0.25 <i>bigha</i> land	5.1kg
2 (RAKHAL)	13	4gumcha 4lunghi 2 ganji 1 shal	3500 Rs pa	2 x <i>bhat</i> 1 x <i>muri</i> pd	30kg paddy pm	bath- ing oil	2.6kg
3 (RAKHAL)	12	2gumcha 4lunghi 2 ganji 1 shal 1 jama	1500 Rs pa	2 x <i>bhat</i> 1 x <i>muri</i> pd	20kg paddy pm	bath- ing oil tobacco	4.0kg
4 (RAKHAL)	40	3gumcha 4lunghi 2 ganji 1 shal	3500 Rs pa	3 x <i>bhat</i> 2 x <i>muri</i> pd		bath- ing oil tobacco	4.0kg
5 (RAKHAL)	14	4gumcha 2 ganji 1 shal 4 jama	2400 Rs pa	?	?	?	3.3kg
6 (NAGARE)	ns						4.9kg

Notes:

pd = per day
pm = per month
pa = per annum
ns = non sample

bhat = cooked rice as a full meal, usually
with vegetables and/or dal
muri = meal of puffed rice
gumcha = towel
ganji = vest
lunghi = cloth piece tied around waist
shal = winter wrap
jama = cotton trousers, tied at the waist

Table 39: Distribution of Person Days Hired In and out by Sampled Employers and Labourers in Rakhal and Nagare Arrangements by Type of Work:

Type of work	(percentage of days)			
	lean season <i>rakhal</i>	<i>nagare</i>	peak season <i>rakhal</i>	<i>nagare</i>
Weeding	0	23	0	0
Thresh paddy	0	0	0	17
Ridge up potatoes	0	0	2	11
Carrying	0	0	13	0
Livestock care	99	69	76	50
Fieldwork combinations	0	8	8	22
Other	1	0	0	0

Notes: This table involves some double counting as employers' and labourers' records were aggregated. However, it serves to illustrate the range of types of work, which *rakhal* and *nagare* workers were required to perform.

for him. The employer's records indicate that the *nagare* earned more on days when he stood in for the *rakhal*.

3.3.5 Phuron Arrangements

Tables 40 and 41 indicate that the incidence of *phuron* arrangements was relatively low in both seasons. While in the peak season, labourers were occasionally contracted via *phuron* arrangements for harvesting paddy, in the lean season *phuron* arrangements involved the porter (coolie) work that was required to load barges in the rainy season and the separation of jute fibres, following the small jute harvest. However, it is notable that almost one fifth of sampled labourers entered a *phuron* contract in the lean season (albeit for just one day each) and that one quarter of employer households hired workers via *phuron* arrangements in the peak season. This arrangement form was not available in Kadapur because it was against the policy of the local CPI(M) cadres. Indeed, the Bardhaman District Secretary of the Krishak Sabha (CPI(M)-led peasant union) explained that although it was recognised that the commercialization of agriculture would be accompanied by increased use of piece rate labour, the practice was discouraged by the union as it discriminated against older or weaker workers, who were less likely to be included in gangs. Further, the intensity of effort motivated by such contracts led to the premature aging of younger workers (interview, October, 1993). Labourers in Adivasi para reported that *phuron* arrangements were widespread in *aman* transplanting and

Table 40: Number and Proportion of Days Hired In and Out in Phuron Arrangements:

		No	%

Employers hiring in	Lean	12	3
	Peak	18	1
Labourers hiring out	Lean	27	8
	Peak	16	2

Table 41: Number of Labourer Individuals and Households and Employer Households Entering Phuron Arrangements:

		No	%

Individual labourers	Lean	7	18
	Peak	1	3
Labourer households	Lean	7	28
	Peak	1	4
Employer households	Lean	1	8
	Peak	4	25

that it was common for younger, male labourers to seek the equivalent of two days and thus double earnings in one day. The brokered daily rate was available for every 8 gonda of *aman* paddy transplanted in 1993.

There was much discussion of *phuron* arrangements among employers in Dhanpur. Its incidence was alleged to have grown sharply and predicted to increase further as high levels of investment in irrigation increased the need for cultivators to complete key tasks within short periods of time. Labourers tended to advocate an increase in possibilities for hiring out as a member of a *phuron* gang. One labourer in a *nagare* arrangement and another in a *rakhal* arrangement joined a gang at the paddy harvest, carrying out the work at night in addition to their daily workloads. One *dol* was formed by a group of Goala *jati* employers' sons, who wanted to raise money for the annual theatre production they organised at a festival in early Bhadra (late August). This broke a general caste taboo on hiring out labour.

3.4 SUMMARY AND CONCLUSION

In this chapter I have examined the diverse types of hired labour arrangement existing in the first study locality, in Bardhaman district. Despite a relatively inflexible locally brokered rate of daily earnings, which operates across *chuto*, *bandha* and *nagare* arrangements, effective wages (for *chuto* (daily time rate) arrangements) were seen to fall in the

harvest season as the same earnings required longer hours of work. However, there was less variation in the hulled rice equivalent value of *chuto* earnings in the peak compared to the lean season. Levels of remuneration do therefore respond, albeit minimally, to seasonal changes in the quantities of labour demanded and supplied. The influx of migrant labour in the peak seasons is also related to a local shortage of labour supply (see Chapter 5).

However, labour exchange in the Bardhaman locality is not characterised by a 'spot market'. Not only do at least six distinct types of labour arrangement coexist, *bandha* arrangements, in which more days were recorded by both local labourers and employers than daily *chuto* arrangements, were seasonal in duration, and were personalised, based on lean season subsistence advances and beck-and-call labour supply.

In the paddy harvest season, more days of seasonal migrant than local labour were hired in by sampled employers. The limited evidence available from other studies suggests that the seasonal migration of agricultural labour is widespread in West Bengal. This raises serious doubts about the validity of models such as Rudra's (1992) and Rao's (1988) based on the notion of village autarchy in labour exchange. This issue will be explored further in Chapter 5.

The Bardhaman locality revealed very little correspondence between type of work and type of hired labour arrangement.

Type of work could not therefore be used to explain the diversity of arrangement types. Furthermore, the combinations of labour arrangements, in which several individual sampled labourers as well as labour-selling households engaged, make it misleading to type a labourer according to any single arrangement category.

The logistic regression analysis suggested that hired labour arrangements were embedded in the land-holding structure. Poorer labour-selling households (those with the least land) were found to be more likely than others to have at least one member working in a *bandha* (seasonal beck-and-call) arrangement. At the same time, however, given wealth, households with larger numbers of able-bodied adults were more likely to deploy at least one individual to a *bandha* arrangement, in order to diversify their sources of credit²⁹.

The chapter also showed the embeddedness of hired labour arrangements in ideologies of caste and gender. Only *jati* low in the caste Hindu hierarchy ('untouchables', *adivasi* and Muslims) hired out manual labour at all. Local Bagdi ('untouchable') and Muslim ideology militated against the hiring out of female labour, though widows from both *jati* hired out labour for manual work. They only worked inside the

²⁹Although space was provided on daily employment records for sampled households to note any borrowing and lending, many respondents were reluctant to reveal the extent of such activities. Labourer household records did, however, suggest that employers were a major source of 'consumption' advances and/or loans, which intuitively fits with labourers relative lack of collateral. A few labourers received loans under government schemes intended to enable poor households to gain access to income-generating assets.

employer's compound and were paid lower rates than field labourers. These exceptions, together with the hiring out of labour for thatching and jute harvesting by a Goala *jati* man³⁰, prove the rule of ideologically embedded hiring out of labour. No women were employed in annual (*rakhal*, *nagare*) or piece rate arrangements (*thika*). No *adivasi* or other recent settler was hired for livestock work. The notion of labour shortage alluded to in the first paragraph of this section is contingent on all of these ideologically based exclusions.

The analysis of intra-contractual variations has also highlighted differences in labour-hiring practices between employers in Kadapur and Dhanpur on the basis of party politics. The former, who stick resolutely to the official guidelines of the CPI(M) and the Kisan Sabha, do not allow earnings to rise above the brokered rate. Dhanpur employers, on the other hand, a majority of whom identify more closely with the Congress (I) party, allow earnings to rise when labour supply is short. *Phuron* arrangements are available only in Dhanpur, where seasonal migrants are hired at rates (at or above the brokered rate) negotiated separately with each gang leader.

At the same time the evidence suggests some support for Hart's thesis that Kadapur employers use differential terms and conditions to socially control the labour force. The big

³⁰This could also be partly explained by a local shortage of specific skills.

Kadapur employer, N, hired a tier of regular workers, mainly from the same *jati*, in year long *rakhal* and *nagare* arrangements. Other labour was hired via seasonal arrangements with recent settlers or migrants.

Indeed *bandha* arrangements do not contradict the risk-sharing, recruitment cost or supervision cost rationales suggested by Eswaran and Kotwal (1985) and Bardhan (1979, 1983) (see 3.2.7). The high incidence of seasonal labour-tying in tight labour 'market' conditions was predicted in P. Bardhan's risk-sharing model (1983). However, the NIE theories can not explain the coexistence of diverse hired labour arrangements because they do not explore social, economic or political embeddedness.

In the next chapter, I go on to describe and explain the existence and coexistence of six types of hired labour arrangement in the other study locality, in Purulia District. At the end of that chapter, I contrast arrangements in the two localities, before proceeding, in the fifth chapter, to analyse the seasonal migration which links them together.

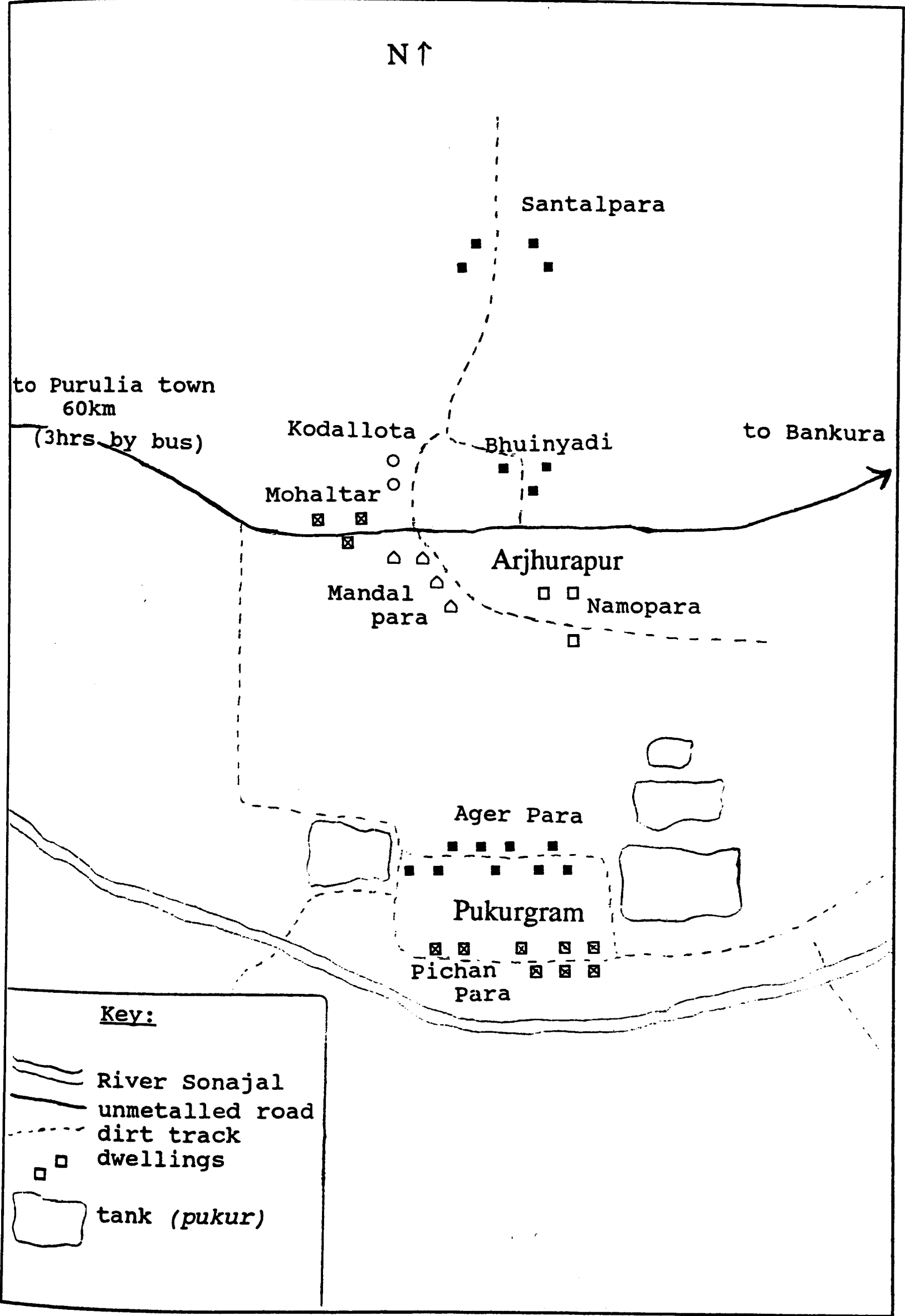
CHAPTER FOUR: DIVERSE LABOUR ARRANGEMENTS IN THE PURULIA LOCALITY

4.1 THE PURULIA LOCALITY

The second locality is based around the villages of Pukurgram and Arjhurapur in Purulia district (see Map 3). Up on the eastern edge of the Chhotanagpur Plateau in the west of West Bengal state, small settlements built predominantly of mud and thatch depend on a single crop of rainfed paddy. About 15 kilometres from the crossing of the Manbazar-Kasipur and Bankura-Purulia roads, the river Sonajal springs from the ground and begins its journey down into the alluvial plains of the West Bengal paddy bowl.

An unmetalled road follows the course of the river about five kilometres through Forest Department land until it passes just to the south of the Bhumij settlement of Pukurgram village. The Bhumij (who are *adivasi*) together with a small number of Muslim families, occupy houses either side of a dusty path running east to west (here termed Pichan para, see Map 3). Parallel to this, slightly up the incline to the north are the Goala and Tamuli dwellings (Ager para). These latter include several brick built houses of up to three storeys, a number of small general shops and a service cooperative. The track passing through Ager para is often muddy and churned up and leads at its eastern end to a large tank (*pukur*) which retains

Map 3: The Purulia Locality (not to scale)



water all the year round. The tank has stone steps leading down to a bathing ghat. It is the central focus of the locality, providing irrigation water for an area of 40 bighas of land between the tank and the river. Two other smaller tanks lie immediately north (another important one is at the opposite end of Ager para) and beyond them is the unmetalled road.

The village of Arjhurapur straddles the road. Several more Goala and Bhumij families live here together with three to four *ghusti* (descent lines) of Bhuinya (an 'untouchable' *jati*). There are two Muslim residences. The main Goala settlement is referred to as Mandal para, the Bhumij settlement beyond that as Namo para, the Bhumij dwellings leading off the road northwards as Kodallota and the Bhuinya area as Bhuinyadi. The dwellings actually on the road, which are inhabited by Goala and Bhumij households, are referred to collectively as Mahaltar. Still further up on the highest land, the hamlet of Santal para, inhabited entirely by Santal households, marks the end of a locality defined, for this study, on the basis of labour exchange¹. Several of the Goala and Bhumij families in Arjhurapur settled in the area during the 1970s after being displaced by the Kangsabati Dam in Bankura District. Most of them had owned land and many bought

¹Santal para is, for administrative purposes, part of another *mouza* - the study locality includes parts of four *mouza*. However, as with the Bhumij and Bhuinya hamlets of Arjhurapur it was selected because it is one of the major sources of labour for Goala, Tamuli and Brahmin employers in Ager para, Mandal para and Mahaltar. Although some employers hire in from other outlying hamlets, the labourers in these hamlets supply labour predominantly to other employers.

plots in their new area of settlement when a major local landholder (who used to share crop out the land) sold up. Some of this land is fertile lowland, which produces high yields of local variety *aman* paddy. The Goala families came to know of the area through marriage relations with a Pukurgram Goala family. Bhumij families, generally agricultural labourers, migrated with the Goalas from the same villages.

Figure 4 illustrates the character of each *para*, in terms of the *jati* of the inhabitants and their class (labourer or employer).

Most households are dependent on the production of a single crop of unirrigated *aman* or *aus* paddy. The diversity of crop rotations on land cultivated by sampled households in the year to December 1991 is indicated in table 42. The productivity of a particular plot depends heavily on the topography of the plot, with low land particularly suited to the cultivation of unirrigated paddy because of its high water retentive capacity. High yielding dwarf varieties, however, were cultivated mainly on irrigated medium and high land because the level of water could be regulated more easily. The distribution of land cultivated by sampled households by topography is illustrated in table 43. The main agricultural employment activities are indicated in figure 5.

Figure Four: A Summary of the Caste and Class Composition of Para in the Purulia Locality:

PARA	JATI		CLASS
Santal	Adivasi	Santal	Labourers
Kodallota	Adivasi	Bhumij	Labourers
Bhuinyadi	Hindu	Bhuinya	Labourers
Mahaltar	Hindu & Adivasi	Brahmin, Goala & Bhumij	Mixed
Mandal	Hindu	Goala	Employers
Namo	Muslim & Adivasi	Muslim & Bhumij	Labourers
Ager	Hindu	Goala & Tamuli	Employers
Pichan	Muslim & Adivasi	Muslim & Bhumij	Labourers

Table 42: Cropping Pattern of Sampled Households in the Purulia Locality
January-December 1991:

CROP	AREA (hectares)
AMAN only	30.1
AUS only	9.5
BORO only	0.1
AMAN + RABI (wheat/mustard/sesame/ onion/potato)	3.6
AMAN + BORO	2.1
AMAN + summer oilseed	1.2
AUS + RABI (wheat/mustard/sesame/potato)	4.8
AUS + summer oilseed/ jute/maize	0.5
coarse cereal/ direct sown paddy/ summer oilseed or other summer crop	2.0
RABI only (potatoes and other veg)/ or with summer crop	0.6
FORESTRY	0.3

Source: Base Line Survey data

Notes: Much of the work involved in summer crops is done by the cultivator without hired labour. Summer crops are much less labour intensive than paddy or potatoes.

Table 43: Distribution of Land Cultivated by Sampled Households by Topography in the Purulia Locality:

TOPOGRAPHY	AREA (hectares)
BAHAL (low land)	19.6
KANALI (medium land)	12.8
BAID (levelled high land)	20.1
DANGA (unlevelled high land)	2.2

Source: Base Line Survey data

Notes: *Danga* (also referred to as *gora*) land was suitable only for coarse cereals such as maize and millet and direct sown paddy, known locally as *tusku* or *thupi dhan*. *Baid* and *danga* are not separate topographical categories but they need to be differentiated as the process of levelling and constructing bunds (al) around a plot significantly increases its productivity. The distribution of land by topography in Purulia District as a whole was: *danga* 9 %, *baid* 51 %, *kanali* 30 %, *bahal* 10 % (Government of West Bengal, Purulia District Annual Plan, 1990-91, vol1 p3).

Figure Five:

Purulia Locality - Main Agricultural Employment Activities by Month and Season:

Bengali month	English month	Season	Activity
Baisakh		Summer	
	May		
Jaistha	June		Sow nurseries for aus & aman paddy. Plough.
Ashar	July	Rains	Plough. Transplant aus paddy.
Sraban	August		Transplant aman paddy
Bhadra	September		Weed paddy.
Aswin	October		First aus paddy harvested.
Kartik	November	Winter	
Agrahayan	December		Aman harvest begins. Paddy cut bound and stacked.
Pous	January		Paddy threshed.
Magh	February		(Some cultivation of winter& summer crops including mustard, wheat, sesame, pulse, boro paddy, maize and millet; but very little agricultural employment).
Phalgun	March	Summer	
Chaitra	April		

The economy of the area depended on forest products until the relatively recent, but almost total, deforestation. The remaining trees are vital sources of fuel, fodder and raw materials for home manufacture (see chapter 6). Livestock ownership is an important back up security, as is ownership of remaining trees on homestead or other land. There is almost no industrial plant in Purulia District. Non agricultural work is available locally through government schemes (perhaps 1 to 2 days per individual labourer per year), artisanal work for skilled carpenters, blacksmiths and thatchers and, in the summer, brick manufacture. Very few people have obtained government jobs. Those who have are from families who already have a significant amount of wealth. A large number of households earn the greater part of their income through seasonal migration for agricultural work in the agriculturally dynamic areas of central southern West Bengal, in Bardhaman and Hooghly Districts. A few individuals have migrated in the past to Dhanbad in neighbouring Bihar state for unskilled catering and colliery work. Other sources of income include milk sales by a few Goala families, petty and larger scale trading (especially by the Tamuli *jati* in paddy and a group of Pichan para Muslim households in cattle) and the processing of paddy.

Arjhurapur, Pukurgram, Santipur, Akashpur and a small number of other villages make up Pholdanga Gram Panchayat. The CPI(M) have a majority of elected representatives and are the dominant political party in the area.

A sample of fifty households (49 in the peak season) was selected from a total of 247 in the locality². 65 individuals from each of 28 households hired out labour for at least one day. 23 households hired in labour on at least one day.

The distribution of landholdings among sampled households (see table 44) suggests that most households own some land³, although the distribution is skewed. 16 per cent of households control 38 per cent of the land. Table 45 shows that there is very little tenancy of any kind. Tables 46 and 47 show the distribution of sampled households by asset rank and caste respectively.

Two seasons were selected to correspond almost exactly to the seasons chosen for the Bardhaman locality. Daily earnings fluctuated widely between the seasons. Lean and peak were accurate descriptions of the two study seasons with respect to mean earnings per day worked (3.79 kg hulled rice equivalent for the peak season and 1.81 kg for the lean⁴) and total seasonal earnings (1151.3kg of hulled rice equivalent for the lean season and 2464.5kg for the peak as an aggregate for all sampled labourers).

²The households were selected by a stratified random sample of all households resident in the village for at least one year. Stratification was by wealth rank (see section 2.2.3).

³ Mencher and Saradmoni specifically contrast the agrarian structures of Purulia and Bardhaman districts - indicating that, while in the former *adivasi* and 'untouchable' households own and cultivate small plots, ownership in the latter is more polarised (1982, pA150).

⁴The mean wage per hour worked was 0.54 kg in the peak season aggregated over both types of diaries, while in the lean season mean wage per hour was 0.38 kg.

Table 44: The Distribution of Landholdings Among Sampled Households in the Purulia Locality:

Land controlled (hectares)	Government Size Category	Sampled households	
		No	%
0	landless	5	10
0.01-1.0	marginal farmer	32	65
1.01-2.0	small farmer	8	16
2.01-4.0	medium farmer	3	14
> or = 4.01	large farmer	1	2

Notes:

Landholdings have been weighted for topography (with lowlands scoring highest, having higher market value and productive potential), irrigation and tenancy status.
Mean landholding = 0.83 ha (6.26 *bigha*)
Median landholding = 0.51 ha (3.8 *bigha*)
Biggest landholding = 6.43 ha (48.2 *bigha*)
Landholdings are measured locally in *bigha*
1 hectare = 7.5 *bigha*
1 acre = 3 *bigha*

Table 45: Distribution of Cultivated Land of Sampled Households by Tenure in the Purulia Locality:

TENURE	AREA (hectares)
Owner cultivation	53.7
Leased in (fixed rent)	0.1
Leased in (share-cropped)	0.7
Other	0.2

Source: Base line survey of sampled households

Notes: These figures refer to plots owned or leased by sampled households in the year ending December 1991. They are reported figures and cannot be easily crosschecked as government figures on land tenure are unreliable, especially since Operation Barga. People probably did understate the quantity of share cropping. This is indicated by the greater quantity of land reported as leased in through a share-cropping arrangement than leased out.

Table 46: Distribution of Sampled Households in the Purulia Locality by Asset Rank:

Asset rank	No of Labourer Households	No of Employer Households	Total no. in Sample
1 (wealthiest)	0	1	1
2	0	9	10
3	3	7	10
4	14	4	17
5	6	0	6
6 (least wealthy)	3	0	5
Total	26	21	49

Notes:

Ranges of asset values (land + livestock + selected other assets) for each class:

- 1 Rs 600,000
- 2 Rs 100,100 - 300,000
- 3 Rs 60,100 - 100,000
- 4 Rs 20,100 - 60,000
- 5 Rs 5,100 - 20,000
- 6 Rs 0 - 5,000

Table 47: Distribution of Sampled Households in the Purulia Locality by Caste and Religion:

Religion & Caste	No of Labourer Households	No of Employer households	Total no. in Sample
Hindu: Goala	0	18	19
Bhuinya (SC)	5	0	6
Tamuli	0	1	1
Brahmin	0	1	1
Muslim:	1	0	2
Other: Santal (ST)	7	0	7
Bhumij (ST)	13	1	13
Total	26	21	49

Notes:

SC = Scheduled Caste, the official term for the untouchable castes.

ST = Scheduled Tribe, the official term for those officially classified as tribal.

However, there was much less distinction between the seasons in terms of the number of person days of labour employed than in the Bardhaman locality. One reason for this was the late monsoon in the study year and consequently the late transplanting of paddy. As a result the 'lean' season chosen turned out to be a busy weeding season in the study locality⁵.

The biggest source of income for labourers was seasonal migration in the study peak season (the *aman* paddy harvest). Migrant labourers were not expected to carry the daily record proforma with them to their destinations. However, the number of days worked, daily earnings, forms of payment and payment regime were reported on return. In the Purulia locality, peak season recruitment, characterised by the frenetic activity of employers in labourers' *para*, contrasts with lean season recruitment when labourers seek work. Some labourers approaching employers for loans in the lean season are offered *berhun* loans against future peak season labour. These are subject to high implicit interest as the rate at which the debt is reduced is much lower than the lowest point on the range of daily rates of pay in the harvest season⁶. A *berhun*

⁵A second reason was the cessation of daily record-keeping in the Santal *para* less than half way through the peak season. This was due to the experience of the local Santal assistant, who found the job of walking around his *para* visiting each of the seven sample households daily too time consuming. No replacement was found. Other work in the *para* continued, however, including the activity analysis.

⁶*Berhun* loans have been reported elsewhere in Purulia District (Dikshit Sinha, pers. comm.). In the other, dry, lean season before transplanting no implicit interest is charged on advances against future payments of labour. This is consistent with Sinha's evidence from a nearby locality that, while interest is not charged on wage advances taken in April and May, it is charged on those taken in September and October (1984, p29). Two possible causes for this are i) the timing of transplanting is particularly crucial and employers are keen to guarantee a supply of

loan of 1 kg of rice in the wet lean season, for example, was repaid with one day's work at harvest, when the hulled rice equivalent for a day's labour cutting paddy was over 2 kilogrammes.

Employers in Arjhurapur and Pukurgram supplement their supply of labourers from hinterland hamlets (up to 4 kilometres away). These labourers are obliged primarily to a different set of employers. The system of recruitment differs as the employers negotiate with an individual or household from the hinterland locality who is known to them, usually one of the para's labour *sardar* (gang leaders)⁷. This person is asked to supply a certain number of labourers. Labourers from within the locality (referred to below as locality labourers) tend to be individually recruited. Employers' inability to name the hinterland labourers they employed suggested a lack of familiarity and thus the possession of more limited information on individual (non-locality) labourers. This is consistent with Rao's model (see chapter 1), in which patron-client relations characterise intra-village labour exchange, while extra-village labour hiring is less personal.

labour; and ii) labourers with land are further removed from their own harvest in the wet lean season (late August - early October) than in the dry (mid March - mid May).

⁷See the description of the *sardari* system in Noakhali District of Bangladesh by Rahman and Das (1982, pp9-13).

4.2 TYPES OF HIRED LABOUR ARRANGEMENTS ENTERED IN THE PURULIA LOCALITY

In this section, I define the indigenous types of labour arrangements found in the Purulia locality, examine the degree of correspondence between agricultural operation and type of labour arrangement and note the involvement of individuals and households in combinations of labour arrangements with differential daily earnings. Then in sections 4.2.4 and 4.2.5, I use logistic regression analysis to examine the effect of wealth, *jati*, gender, age, neighbourhood⁸, and household size (number of adult workers) on the likelihood of a work day being hired in or out via specified arrangement types. The analysis examines the hypotheses summarised in section 2.1.

The six types of hired labour arrangements found in the Purulia locality can be defined as follows:

HAJIRA - labour hired on a daily time rate basis. *Hajira* (also *hajri*) is defined as "attendance, appearance, presence" (Samsad, 1982). It was often gendered (*munish hajri* for male labourer and *kamin hajri* for female labourer). *Hajira* arrangements are usually of a single day's duration and are paid at a time rate.

⁸As in chapter 3, *jati*, gender and neighbourhood are not always separable. Where this is the case, one is used as a proxy variable for the other(s).

THIKA - individual labourers hired on a daily piece rate basis. *Thika* is defined literally as "that which is done on contract or piece system" (Samsad, op. cit.). It differs from *hajira* only in terms of the payment regime. Remuneration is made according to the numbers of seedlings transplanted, bundles of paddy threshed etc.

MUNISH - arrangements agreed for one year at a time at a flat daily rate. However, if there is no work, the labourer does not get paid. Certain clothes may be provided. *Munish* arrangements usually begin on 1st Baisakh (mid April) and end at Saraswati puja (early February). In the Purulia locality, the word *munish* was also used as a generic term for a male labourer (the female equivalent being *kamin*). The dictionary translation of *munish* is "a farm hand" (ibid.).

BHATUA - an annual duration arrangement sometimes renewed for a number of years. The term is probably related to the payment form which includes *bhat* (cooked rice) daily. *Bhatua* workers must report for work daily unless ill and may not work for other employers. They are not hired for any specific task, combining fieldwork, general maintenance and watching of crops, livestock associated work (though not usually grazing) and supervision of labour. *Bhatua* does not appear in Samsad's Bengali-English dictionary.

BAGAL - annual arrangements for the grazing of livestock. The *bagal* worker, usually either a child or an elderly person of

either sex, collects the cattle and small livestock and takes them to graze for the day. The work is labour extensive, mainly concerned with guarding others' standing crops from the animals and the animals from wandering off. Many households, rather than employing their own *bagal*, share one with others, paying on a per head basis, with different rates for small stock and cattle. However, those households employing their own *bagal* negotiated an annual fixed payment at the beginning of the contract. *Bagal* does not appear in Samsad's Bengali-English dictionary.

SEASONAL MIGRANT - groups of labourers leave the locality during the peak harvest season in central southern West Bengal (particularly Bardhaman and Hooghly districts). Seasonal contracts are negotiated with employers themselves or their agents via the group leader (*dol sardar*). These arrangements, although not uniform (see chapter 5), form a single category mainly to emphasise that they involve work outside the study locality.

The absolute and relative incidence of each type of arrangement in terms of workdays and the number of individual labourers and labourer and employer households are given in tables 48 and 49.

Table 48: The Distribution of Days Worked between Arrangement Types:

Class/ Season		No. and percentage of days in each arrangement type						Tot No Days
		HAJIRA	THIKA	SEAS MIG	BHATUA	MUN- ISH	BAGAL	
Employer lean	No	569	60	0	94	15	0	928
	%	67	6	na	12	2	13	
Employer peak	No	292	183	0	97	15	149	819
	%	41	22	na	13	2	21	
Labourer lean	No	470	28	0	0	0	26	643
	%	90	4	na	na	na	4	
Labourer peak	No	196	66	372	0	0	27	659
	%	31	10	55	na	na	4	

Notes: The percentages of days presented in the table do not sum to 100 in three of the four rows. This is because of a small number of other arrangements, such as exchange labour and combinations of *hajira* and *thika* (see section 4.3.6)

Table 49: The Number and Proportion of Sampled Labourer and Employer Households and Individual Sampled Labourers in Each Arrangement Type:

		<i>hajira</i>		<i>thika</i>		<i>Seas.mig</i>		<i>bhatua</i>		<i>munish</i>		<i>bagal</i>	
		No	%	No	%	No	%	No	%	No	%	No	%
Ind'l lbrers	Lean	64	98	4	6	na		0	0	0	0	1	2
	Peak	46	75	18	30	18	30	0	0	0	0	1	2
Lbrer hholds	Lean	28	100	4	14	na		0	0	0	0	1	4
	Peak	13	50	10	38	11	42	0	0	0	0	1	4
Emp'r hholds	Lean	21	95	3	14	na		4	18	1	5	5	23
	Peak	17	94	14	78	na		4	22	1	6	6	33

Source: Daily records kept by sampled households

Notes:

Ind'l = individual

Lbrer = labourer

Emp'r = employer

The conspicuous failure of the percentages of individual labourers involved in each arrangement type to sum to one hundred illustrates the tendency for individuals to be engaged in combinations of arrangements over time. The same is true for labourer and employer *households*, which may be simultaneously hiring out or in via more than one arrangement.

The majority of labour days hired in or out were in *hajira* arrangements, except in the peak season when the majority of days hired out by sampled labourers were in seasonal migrant arrangements (table 48). In the peak season, a greater proportion of days were worked in *thika* arrangements than in the lean season. Table 49 indicates how arrangements were not mutually exclusive for sampled labourers or employers. Individual labourers hired themselves out in more than one form of arrangement and employers also hired in labour in a variety of types of contract. None of the sampled labourers were employed in *bhatua* or *munish* arrangements. Indeed only four sampled employer households employed labour via *bhatua* arrangements and just one via a *munish* arrangement.

4.2.1 Inter-Contractual Differences in Daily Earnings

As in the Bardhaman locality, systematic differences in daily earnings between arrangement types suggest that it would be incorrect to conceptualise village labour exchange as a 'market' with a single 'price'. Earnings data for pairs of arrangements in each season were compared separately using labourer and employer records. Mann-Whitney tests were used to rank observations of earnings for each pair. The results are presented in table 50. They indicate that seasonal migrants earned more than those hired locally (as in the Bardhaman locality) and, of the latter, those in *thika* arrangements earned more per day than those in *hajira* arrangements (just as earnings in *phuron* arrangements

Table 50: Pairs of Arrangement Types Ranked by Daily Earnings:

PAIR OF ARRANGEMENT TYPES	NUMBER OF CASES	MEAN RANK
Seasonal migrant Hajira (peak season)	348 204	379 103
Seasonal migrant Thika (peak season)	348 64	221 128
Thika Hajira (peak season)	64 200	205 109
Thika Bhatua (peak season)	135 109	172 62
Thika Munish (peak season)	135 20	87 20
Bhatua Hajira (lean season)	112 617	588 324
Munish Hajira (lean season)	18 617	606 310
Hajira Bhatua (peak season)	334 109	277 55
Hajira Munish (peak season)	335 20	188 11

Notes: The Mann-Whitney test ranked pairs of arrangements by counting the number of times the earnings in one contract exceeded earnings in the other (having listed them in descending order). Significant differences at the 0.05 per cent level were found between the arrangement types in each pair in the table. Earnings from the upper arrangement were significantly higher in each case. The top three pairs are derived from labourers' records, the remainder from employer records.

exceeded those in *chuto* arrangements in the Bardhaman locality). However, while in the Bardhaman locality, *chuto* and *bandha* arrangements were consistently remunerated at a higher daily rate than *nagare* and *rakhal* arrangements, in the Purulia locality both types of long duration arrangement - *munish* and *bhatua* - were paid at higher daily equivalent rates than short duration arrangements in the lean season and at lower ones in the peak season. Variations in earnings within each Purulia locality arrangement type are analysed in section 4.3. The higher daily earnings in piece rate arrangements in both the Bardhaman and the Purulia localities reflect the premium employers place on speed of work at crucial points in the cropping cycle and the greater intensity of effort involved on the part of labourers. Piece rates act as a form of incentive as asserted by Binswanger and Rosenzweig (1986, op. cit.). The differences between the two localities in the relation between daily and seasonal time rate arrangements (*hajira*; *chuto*, *bandha*) on the one hand, and annual duration arrangements (*munish*, *bhatua*; *nagare*, *rakhal*) on the other highlight the higher degree of seasonal variation in remuneration to local labourers in the Purulia locality compared to the Bardhaman locality.

4.2.2 Type of Arrangement and Types of Work

Tables 51 to 54 show the distribution of days spent in each arrangement by type of work in each season for employer and labourer records. The tables indicate that, while there is a

Table 51: The Distribution of Days Spent in Each Arrangement Type by Operation:

PURULIA PEAK EMPLOYER RECORDS:

OPERATION	ARRANGEMENT TYPE				
	Hajira	Thika	Bhatua	Munish	Bagal
Cut paddy	239	4	5	4	4
Thresh paddy	13	80	7	0	0
Bind paddy	13	54	2	0	0
Livestock care	0	0	47	0	142
Non agric	43	45	7	2	0
Other	27	0	48	14	3
TOTAL	335	183	109	20	149

Notes:

'Non-agric' refers to non-agricultural activities, such as building and chopping wood.

One labourer, a woman, B, worked for one hour per day cleaning the cowshed of an employer household. This arrangement does not appear in the table. Driving a bullock cart accounted for 10 "other" *munish* days and 11 "other" *bhatua* days.

Table 52: The Distribution of Days Spent in Each Arrangement Type by Operation:

PURULIA PEAK LABOUR RECORDS:

OPERATION	ARRANGEMENT TYPE			
	Hajira	Thika	Bagal	Seas. Mig.
Cut paddy	161	0	0	0
Thresh paddy	5	19	0	40
Bind paddy	11	47	0	0
Livestock care	0	0	8	0
Non agric	4	0	0	0
Other	22	0	0	0
TOTAL	203	66	8	40

Notes: Seasonal migrants in the peak season were involved in a number of tasks including the cutting and threshing of *aman* paddy. However, as they were not asked to maintain daily records during work performed in destination areas, the types of work performed by seasonal migrants was specified in very few cases.

This accounts for the 332 cases missing from this table.

Table 53: The Distribution of Days Spent in Each Arrangement Type by Operation:

PURULIA LEAN EMPLOYER RECORDS:

OPERATION	ARRANGEMENT TYPE				
	Hajira	Thika	Bhatua	Munish	Bagal
Nirano	370	0	1	0	0
Chotano	152	0	0	0	0
Livestock care	1	0	76	0	119
Non agric	50	58	7	3	0
Other	46	2	27	15	0
TOTAL	619	60	111	18	119

Notes: 13 days chemical application done by *bhatua* or *munish*
The terms *nirano* and *chotano*, which mean weeding by hand and with a spade respectively, are used by Chakrabarti (1986, glossary).

Table 54: The Distribution of Days Spent in Each Arrangement Type by Operation:

PURULIA LEAN LABOURER RECORDS:

OPERATION	ARRANGEMENT TYPE			
	Hajira	Thika/ hajira + thika	Kal munish	Bagal
Nirano	228	0	0	0
Chotano	196	0	4	0
Livestock care	1	0	0	26
Non agric	48	27	0	0
Other	101	5	0	0
TOTAL	574	32	4	26

Notes: *Hajira + thika* refers to a form of arrangement used specifically for transplanting paddy, whereby uprooting seedlings in the nursery in the morning is paid at a piece rate and transplanting them in the afternoon is paid a preagreed fixed amount.

Kal munish refers to a seasonal labour arrangement based on a wage advance. The labourer pledges to work at the "beck and call" of the employer until the advance is paid off by labour.

greater association between arrangement type and type of operation than in the Bardhaman locality, there is no one to one correspondence between these two categories here either. The exception is livestock work, for which only two days labour were recorded under *hajira* and *thika* arrangements. Livestock work - including grazing, shed cleaning, preparing feed and feeding - is thus done almost entirely via *bhatua* and *bagal* arrangements. One important difference with the Bardhaman locality is that tasks were almost always specified at the time of recruitment so that very few days were hired in or out in combinations of fieldwork tasks.

As in the analysis of the Bardhaman locality data, logistic regression is used here to test whether particular labourer and employer characteristics, such as wealth, *jati*, age, sex, residence location and settlement history influence the likelihood that a particular working day will involve one type of arrangement rather than another. This can only be done where there are relatively large numbers of labourers involved (see section 3.2.3). Thus I include *hajira*, peak season *thika*⁹ and seasonal migrant arrangements (labourer diaries only in the latter).

⁹In the lean season, there were insufficient numbers of labourers involved in *thika* arrangements. As the logistic regression technique enables us to test the effect of certain independent variables on the likelihood that one arrangement type will be entered rather than another, at least two arrangement types are required. We cannot test the effect of independent variables on the odds that *hajira* alone will occur, without using another type as a base reference.

Although labourers combined arrangement types less than in the Bardhaman locality, because of the preponderance of combinations of roles among some labourers, work days rather than individuals or households are again used as the unit of analysis. The combinations of arrangement types entered by labour selling individuals and households are illustrated for both seasons in table 55. In the peak season several individuals and households combined *hajira* and *thika* or *hajira* and seasonal migration. Given that the great majority of labour-selling individuals and households hired out via *hajira* arrangements at least once during the season, factors influencing the entry of *thika* and seasonal migrant arrangements analysed via the logistic regressions in sections 4.2.4 and 4.2.5 can also be used to explain the more common combinations of arrangements.

4.2.3 Exclusions from Particular Arrangements Based on Caste and Gender Ideologies and Settlement History

As in the Bardhaman locality, those from the Hindu "backward caste" Goala *jati* excluded themselves from hiring out manual labour on the ideologically derived basis that it was an inappropriate role for their caste. However, unlike in Bardhaman, the gender division of labour was task based and not *jati* based. Labour was hired out by women and men of Bhuinya, Bhumij, Muslim and Santal *jati*. There was no distinction by caste in the deployment of women to hired labour by households from these *jati* and yet as we shall see,

Table 55: Combinations of Contracts Entered by Labour Selling Individuals and Households in the Lean and Peak Seasons in the Purulia Locality:

<u>LEAN SEASON:</u>		
<u>COMBINATION</u>	<u>NO OF HOUSEHOLDS</u>	<u>NO OF INDIVIDUALS</u>
<i>hajira</i> only	76	89
<i>thika</i> and <i>thika/hajira</i>	4	1
<i>hajira</i> and <i>thika</i>	14	8
<i>hajira</i> and <i>kal munish</i>	3	1
<i>bagal</i> only	0	1
<i>thika</i> and <i>hajira</i>		
and <i>bagal</i>	3	0
Total no of households: 28		
Total no of individuals: 65		
<u>PEAK SEASON:</u>		
<u>COMBINATION</u>	<u>NO OF HOUSEHOLDS</u>	<u>NO OF INDIVIDUALS</u>
<i>thika</i> and <i>hajira</i>	42	26
<i>hajira</i> and		
seasonal migrant	15	11
<i>hajira</i> only	12	36
<i>thika</i> only	0	3
seasonal migrant only	15	20
<i>hajira</i> and <i>kal munish</i>	0	2
<i>hajira</i> and <i>thika</i>		
and seasonal migrant	8	0
<i>hajira</i> and <i>thika</i>		
and seasonal migrant		
and <i>kal munish</i>	4	0
<i>thika</i> and <i>hajira</i>		
and <i>bagal</i>	4	0
<i>bagal</i> only	0	2
Total no of households: 26		
Total no of individuals: 61		

Source: Daily records kept by sampled households

certain tasks were considered appropriate for women and others for men. Women as a group had access only to *hajira*, *thika*, seasonal migrant and *bagal* arrangements. Not only were more than 50 per cent of person days hired in via *hajira* arrangements by sampled employers worked by women; women made up the majority of individual labour sellers in the sample, including half of the individuals involved in seasonal migration (see tables 56 and 57 below). The high proportion of women labourers accounts for the higher ratio of individual labourers to labour selling households in the Purulia locality as compared to Bardhaman (compare table 57 to table 15 in Chapter 3).

4.2.4 The Odds of a Workday Being in a *Thika* rather than a *Hajira* Arrangement

Logistic regression was next used to test the effect of selected independent variables on the odds that a particular workday would involve a *thika* rather than a *hajira* arrangement. *Thika* arrangements accounted for approximately twenty per cent of days worked in the locality in the peak season and just 4-6 per cent of work days in the lean season. In both seasons *hajira* arrangements were predominant (see table 48, above). *Thika* arrangements are used for transplanting, binding and threshing paddy and for certain skilled non agricultural tasks such as roof building. Although daily earnings from both arrangements varied widely (see section

Table 56: The Number and Proportion of Days Worked by Women Labourers in each Arrangement Type in the Purulia Locality:

		hajira		thika		Seasonal migrant	
		No	%	No	%	No	%

Employers	Lean	374	64	0	0	na	na
hiring in	Peak	192	57	24	13	na	na
Labourers	Lean	196	34	1	4	na	na
hiring out	Peak	124	60	12	18	152	42

Table 57: The Number and Proportion of Women Labourers Engaging in Each Arrangement Type in the Purulia Locality:

		hajira		thika		Seas mig		Total	
		No	%	No	%	No	%	No	%

Labourers	Lean	32	50	1	25	na	na	33	51
hiring out	Peak	26	56	2	11	9	50	32	52

Notes: One woman also hired out as a *bagal*. She was the only *bagal* worker in the labour household sample, working for 26 days in the lean season and 8 days in the peak season before the local assistant in her *para* withdrew cooperation and the records ceased prematurely.

4.3), *thika* earnings were high in relation to those from *hajira* arrangements. For example, modal earnings for *hajira* arrangements in the peak season fell in the range 2.1-3 kg of hulled rice equivalent, while the majority of *thika* earnings reported by sampled labourers exceeded 4 kg (see tables 65 and 74 below). This analysis examines the characteristics of workers and employers entering *thika* arrangements in the study peak season for agricultural operations.

Labourer Records:

The following independent variables were logistically regressed with the dichotomous dependent variable THIKA:

WEALTH - It was hypothesised that the wealth of a labourer household (WEALTH) was positively related to the odds of a workday being in *thika*. As WEALTH was closely related to landholding, members of wealthier households had access to higher returns to labour power in own cultivation than members of poorer households. Thus the opportunity cost of selling labour was higher the greater the wealth of the labour-selling household. Further, such households did not depend on income from selling labour and thus could maintain higher status by selling only in arrangements and at times when earnings were relatively high. It was observed that women from a relatively wealthy household belonging to a *jati* which did not prohibit the sale of labour, hired out via lucrative piece rate

arrangements in the main transplanting season but at no other time¹⁰.

WORKERS - The number of household members between the ages of 14 and 60 in a labour selling household was hypothesised as positively related to the odds of a contract being *thika* rather than *hajira*. The rationale was that households with larger numbers of workers were better positioned to take the higher earnings possibilities involved in *thika* than those with fewer workers. The latter households' greater vulnerability made them more risk averse and they thus sought more secure sources of earnings¹¹.

AGE - The age of the labourer was hypothesised to be negatively related to the odds of a day being worked in a *thika* rather than a *hajira* arrangement. This was because it was supposed that in order to obtain the higher earnings possible through *thika* contracts, physical strength and stamina were required. Moreover, younger, fitter workers would be more confident of finding employment and would thus be less likely to have prior commitments when *thika* arrangements became available.

LBSEXDUM - It was hypothesised that, in the *aman* harvest season, if the labourer was male rather than female the odds

¹⁰Observation of the allocation of labour during *aman* transplanting were made during July 1991 when the record-keeping system was being established. Other information about *aman* transplanting was obtained from the pilot study and from retrospective questions in interviews held during and after the record-keeping periods.

¹¹*Thika* arrangements are not linked to lean season loans or advances.

of a workday being in *thika* would increase. This would be partly due to the gender division of labour in the operations for which *thika* was available. It is likely that in the transplanting season, the sign would have been reversed as most transplanting was done on *thika* contracts by women.

Results:

LBSEXDUM and WEALTH were both found to have significant positive effects on the odds of an arrangement being *thika* rather than *hajira* (see table 58). This implies that if a labourer is a man rather than a woman the odds of a contract being *thika* rather than *hajira* are relatively high during the main paddy harvest. According to our data, for a given level of household wealth, being male increased the odds of an arrangement being *thika* rather than *hajira* by almost six times. Indeed the binding and threshing of paddy (activities closely associated but not coterminous with *thika* arrangements in the *aman* harvest season) for wages is mainly, though not exclusively, carried out by male labourers. With regard to WEALTH, less poor labourers are in a stronger position to hold out for the higher earnings possible from *thika* arrangements. They are less often precommitted, for example through *berhun* loans. Relatively less poor labour households have greater access to *thika* arrangements and at the same time less need for or dependence on labour selling. The results suggest that both for men and women, each additional Rs 10,000 of household wealth increases the odds of an arrangement being *thika* rather

Table 58: Logistic Regression on THIKA, Labourer Diaries:

Peak season
DEPENDENT VARIABLE IS THIKA

Independent Variable	B	Sig	R	Exp(B)
WEALTH	0.19	0.0119	0.12	1.21
LBSEXDUM	1.77	0.0000	0.28	5.85
constant	-2.94	0.0000		
Goodness-of-fit significance 0.7504. Number of cases 254.				

than *hajira* by approximately 20 per cent. The analysis thus provides further evidence that labourers from relatively less poor households have distinct supply behaviour from poorer labourers.

Neither AGE nor WORKERS were found to have significant effects on the odds. Contrary to our expectations, we cannot conclude that younger workers or those from households with greater numbers of able bodied adults had greater access to *thika* arrangements.

Employer Records:

WEALTH - the wealth of the employer household was hypothesised to have a positive effect on the odds that a contract be *thika* rather than *hajira*. Wealthier employers usually had larger landholdings and thus greater production. There were greater supervision costs than on small landholdings in that paddy would have to be bound on several plots simultaneously (the synchronicity problem identified by Binswanger and Rosenzweig, 1986 - see chapter 1). Also there was more cut crop to be threshed and stored away. Paddy stored outside unthreshed was in danger from spoiling in the event of unseasonal rains. Speed was essential in both binding and threshing. *Thika* arrangements provided an incentive mechanism, reducing supervision costs and the risk of crop loss.

WORKERS - the number of adult workers in an employer household was hypothesised as being negatively related to the odds of a contract being *thika* rather than *hajira*. This was due to the likelihood that the more household labour was available, the less would be the need for employers to sacrifice quality by employing labourers on a piece rate. In *thika* arrangements because of the much greater speed at which binding and threshing were performed, a loss of quality was inevitable.

LBAGE - it was hypothesised that the age of a labourer was negatively related to the odds of a contract being *thika* rather than *hajira*. The rationale was that *thika* contracts were designed as an incentive to workers to increase their productivity per unit time. Employing older labourers would be less likely to achieve this purpose.

NONLOCAL - this variable referred to labourers' place of residence. The variable was dichotomous - labourers' residences were divided into those inside and those outside the immediate locality. It was hypothesised that those from the hinterland areas would face low demand for labour from their regular employers and would thus be willing to work under relatively disadvantageous terms and conditions. Moreover, as they were organised in teams (*dol*) with leaders (*sardar*), less supervision costs were involved and less incentive required to work faster. They were thus less likely to be employed via piece rate arrangements.

Results:

LBSEXDUM was positively and strongly related to the odds of a contract being *thika* rather than *hajira* (see table 59). The odds were increased by a factor of 5.6 if the labourer involved was male. Male labourers had greater access to binding and threshing work than women. So this result is more to do with the gender division of labour than with access to particular contract types. Analysis of other data indicates that women have greater access to transplanting arrangements - mostly piece rate - in the months of Ashar and Sraban (late June to early August).

WORKERS was negatively related to the odds of *thika* rather than *hajira* as expected. For each additional worker in an employer household, the odds of a day's labour being hired in via a *thika* arrangement declined by just over 20 per cent. Employer households with relatively more able bodied adults were thus less likely to sacrifice quality for speed of work, given their wealth and the sex of the labourer.

It was found that WEALTH was positively related to the odds of a contract being *thika* rather than *hajira*. For every additional Rs 10,000 of employer household wealth, the likelihood of an arrangement being in *thika* rather than *hajira* increased by 4 per cent. Thus wealthier employer households - those with more land - were more likely to hire in piece rate

Table 59: Logistic Regression on THIKA, Employer Diaries:

Peak season
DEPENDENT VARIABLE IS THIKA

Independent Variable	B	Sig	R	Exp(B)
WEALTH	0.04	0.0097	0.09	1.0437
WORKERS	-0.24	0.0082	-0.09	0.7897
LBSEXDUM	1.72	0.0000	0.28	5.6031
constant	-1.61	0.0000		
Goodness-of-fit significance 0.4616. Number of cases 468				

labour than less wealthy ones. This supports our hypothesis that piece rate labour was likely to be related to employers' need to complete binding and threshing of *aman* paddy within a tight time schedule.

NONLOCAL and LBAGE were found not to be significantly related to the odds of a contract being *thika* rather than *hajira*.

The significance level of the goodness-of-fit statistic indicates that we cannot reject the hypothesis that this logistic regression model fits the data.

4.2.5 The Odds of a Workday Being in a Seasonal Migrant Rather Than a *Hajira* or *Thika* Arrangement

Seasonal migration was treated as a separate type of labour arrangement because it involved negotiation between employers and labourers (or between representatives of employers and the labour gang leader) from different districts. It also required labourers to reside in temporary accommodation away not only from their homestead but also from many of the social networks of their own village¹². Migration took place throughout the year, though it was concentrated in the four periods corresponding to the transplanting and harvesting of

¹²Examples of social networks operating in the locality above the level of *para* included clubs, which raise subscriptions to organise sport and religious events (such clubs are common in West Bengal and have been used as the basis for development interventions by a major non-governmental organisation, see Chakraborty et al (1993, p116)), and *phul* relations (special friendships, literally flower), which establish kinship and special exchange arrangements across *jati* (see also Sinha, 1984, p60).

boro and aman paddy in the central districts of Bardhaman and Hooghly. Most migration from the Purulia locality took place during the aman harvest - in the months of Agrahayan and Pous (late November to early January). This corresponded with the "peak" season selected for the maintenance of records of the terms and conditions of labour arrangements by labourers and employers. In the Purulia locality only labourer records contained data on out-migration and the tests discussed below refer only to the peak season. More days were hired out by sampled labourers in migration in the peak season than in local labour arrangements. The reasons for this (including the large earnings differential) are explored further in Chapter 5. Logistic regression was used to test the effect of selected independent variables on the odds that a particular work day would be in a seasonal migrant rather than a *hajira* or *thika* arrangement¹³.

Labourer Records:

WEALTH - it was hypothesised that the poorer among labour selling households were more likely to migrate for seasonal employment than others and thus that WEALTH would be negatively related to the odds of a day being worked in a seasonal migrant rather than a *hajira* or *thika* arrangement. One reason for this was that such households built up debts through the lean season and migration offered a rare

¹³The dichotomous dependent variable SEASMIG took a value of 1 if the day was worked in a seasonal migrant arrangement and a value of 0 if the day was worked in either a *hajira* or *thika* arrangement.

possibility of earning and saving cash for the repayment of debts. Also, households needing to raise cash for other purposes, such as the costs of a marriage or attendance at a festival, often had no other source. As a measure of poverty, WEALTH gives particular weight to landholding; it was expected that households cultivating very little or no land were more likely to migrate because of their lesser commitment than other households to production on their own land.

DPNDNTS - the independent variable DPNDNTS indicated the number of individuals in each household, who were dependent on others' productive activity for their livelihood. It was calculated as the total number of individuals below the age of 6 or above the age of 70 plus half the number of individuals between 6 and 13 years and half the number between 61 and 70 years¹⁴. It was hypothesised that DPNDNTS would be negatively related to the odds of a day being hired out in a seasonal migrant arrangement than in a *thika* or *hajira* arrangement. This was because the greater the number of dependents in a household, the greater the requirement either to leave at least one worker behind or to be burdened with additional

¹⁴Individuals aged between 6 and 13 and between 61 and 70 made productive contributions such as livestock grazing, and released other household members from daily reproductive activities such as food preparation or care of younger children. Their productivity was nevertheless significantly lower than most fourteen-sixty year olds.

reproductive responsibilities during the migration period¹⁵.

AGE - it was hypothesised that the age of an individual worker was negatively related to the odds of a workday being in a seasonally migrant rather than a *hajira* or *thika* arrangement. This was because younger workers (say between 15 and 25 years old) were often physically fitter and thus more mobile. They may also have had fewer responsibilities for their own household's cultivation and have built up fewer ties to other (patron) households.

LBSEXDUM - it was hypothesised that if an individual worker was male, it would increase the likelihood of a particular workday being in a migrant rather than *hajira* or *thika* arrangement. Thus a positive relation was expected between LBSEXDUM and SEASMIG. Although women migrated regularly, it appeared to be less common for those with household reproductive and productive responsibilities. Two of the women migrants in the sample were widows with fewer such responsibilities. Unmarried girls only migrated for paid work after puberty and always with their mothers or other relatives.

WORKERS - it was hypothesised that the greater the number of WORKERS in a household, the more likely that a particular work

¹⁵Young children taken on a seasonal migration were observed often to be left unattended while mothers and fathers worked with their gang in the destination village. Moreover, they could contribute to the reproductive needs of the gang, such as cleaning, washing clothes, fuel collection or food preparation.

day would be in a seasonal migrant rather than *hajira* or *thika* arrangement. The household would be in a position to deploy some but not all workers and would thus be able to straddle productive and reproductive requirements at home as well as earn high wages through migrant labour.

RESULTS:

LBSEXDUM was found to be positively related to the odds of a particular working day being in a seasonally migrant rather than *hajira* or *thika* arrangement as expected (see table 60). If the labourer was male, the odds of a peak season work day being in migration rather than in an *hajira* or *thika* arrangement increased by sixty per cent. Although men from the Purulia locality worked as migrant labourers on a greater number of days than women, women made up half the number of migrants.

DPNDNTS was found to be negatively related to the odds of a particular working day being in a seasonally migrant rather than *hajira* or *thika* arrangement as expected. For each additional dependent the odds of a particular peak season work day being in migration rather than *hajira* or *thika* decreased by over fifty per cent. This suggests that in this locality, labour selling households with larger numbers of dependents were less likely to migrate at the *aman* harvest than households with fewer dependents.

Table 60: Logistic Regression on SEASMIG, Labourer Diaries:

Peak season
DEPENDENT VARIABLE IS SEASMIG

Independent Variable	B	Sig	R	Exp(B)
WEALTH	-0.28	0.0000	-0.24	0.7550
AGE	-0.03	0.0065	-0.08	0.9748
LBSEXDUM	0.48	0.0114	0.08	1.6177
DPNDNTS	-0.72	0.0000	-0.24	0.4876
constant	2.3316	0.0000		
Goodness-of-fit significance 0.6366. Number of cases 571.				

WEALTH was found to be negatively related to the odds of a particular workday being in a seasonally migrant rather than *hajira* or *thika* arrangement as expected. For every additional Rs10,000 wealth owned by a labour-selling household, the odds of a work day being in migration rather than *hajira* or *thika* decreased by approximately 25 per cent. This suggests that individuals from poorer labour selling households were more likely to do seasonal migrant labour in the *aman* harvest than less poor households.

AGE was found to be negatively, though weakly, related to the odds of a particular workday being in a seasonally migrant rather than *hajira* or *thika* arrangement as expected. Thus younger labourers are more likely to migrate than older ones.

WORKERS was not found to be significantly related to the odds of a particular workday being in a seasonal migrant rather than *hajira* or *thika* arrangement.

The significance level of the goodness-of-fit statistic leads us not to reject the hypothesis that this logistic regression model fits the data.

4.2.6 Summary of the Logistic Regression Results:

The logistic regression analysis provides evidence to support the hypothesis that relatively less poor labour selling households have greater access to the higher daily earnings

available through *thika* arrangements. Moreover, such households have less need to borrow during the lean season and thus precommit their own labour to *hajira* arrangements through *berhun* loans. During the paddy harvest, men have much greater access than women to *thika* (according to our analysis of both labourer and employer records). However, this is more associated with the gender division of labour by task than with the social rank or economic condition of either employer or labourer household.

The data suggested that the use of *thika* (piece rate) labour in the peak season was more likely for relatively wealthy employers, for whom the speed of completion of tasks such as binding and threshing paddy would be particularly important, given the greater area being harvested. On the other hand, employer households with relatively large numbers of able bodied adults were less likely to sacrifice the quality of work to the speed of completion.

On seasonal migration the data suggest that younger labourers and those from poorer households, particularly those with relatively few non earners, were more likely than others to migrate. Men were likely to spend more days in migrant labour than women (although women made up half of the migrant workforce in the study peak season)¹⁶.

¹⁶This was due to the tendency of some women to return to the source locality earlier than men.

The deployment of individuals from relatively less poor labour-selling households in *thika* arrangements and the greater tendency to use *thika* rather than *hajira* arrangements by relatively wealthy employers evinces the embeddedness of labour arrangements in the Purulia locality in the land-holding structure. Labour-selling households with bigger land-holdings do not experience the same vulnerability as the poorest households to lean season subsistence crises and thus are able to maintain themselves without recourse to precommitting labour via *berhun* loans.

Nevertheless, the evidence presented here does not contradict NIE explanations for the coexistence of piece and time rate arrangements. Dreze and Muherjee argued that the use of piece rates rather than time rates would vary between individual employers according to their valuation of i) the relative benefits of rapid completion and quality control, and ii) savings on supervision and/or unit labour costs. Binswanger and Rosenzweig held, more simply, that piece rates would be used when output was measurable both quantitatively and qualitatively (see Chapter 1). Piece rate arrangements in the Purulia locality were found to be used relatively more often by wealthier employers, suggesting that the control of a larger land area involved greater supervision costs and thus more need to provide a work incentive. Timeliness of binding and threshing was also at a premium for cultivators of large areas of land.

4.3 INTRA-CONTRACTUAL DIVERSITY IN THE PURULIA LOCALITY

In this section variation in the selected attributes for each indigenous type of labour arrangement are discussed¹⁷. Table 61 shows how *thika* and *hajira* arrangements exhibited diversity in at least four components. *Bhatua* and *munish* arrangements also exhibited diversity of earnings, wages, form of payment, time of payment and type of work.

4.3.1 *Hajira* Arrangements

Hajira arrangements are usually of a single day's duration and are paid at a time rate. Norms of physical achievement are unspoken but mutually accepted. For certain tasks, hours are set by the departure and return of the first daily bus to Purulia town. Unlike the daily time rate arrangements in the Bardhaman locality (*chuto*), there is no standard form or rate of pay across seasons and tasks. Yet, as we shall see, some tasks were associated with particular forms and amounts of remuneration, such that many fewer *hajira* than *chuto* days involved combinations of activities.

The number and proportion of days hired in and out by sampled employers and labourers in *hajira* arrangements are illustrated in table 62. Table 63 shows the number and proportion of sampled households and individual labourers involved. Far

¹⁷ Duration, earnings, hours of work, form of payment, time of payment, type of work, payment regime, work organisation (see 3.3, above).

Table 61: Intra-Contractual Diversity in the Purulia Locality:

Source of variation	Contract type	
	<i>hajira</i>	<i>thika</i>
Wage/earnings	Y	Y
Hours per day	Y	na
Type of work	Y	Y
Main form of payment	Y	Y
Time of payment	Y	Y
Y = yes, there was variation N = no, there was no variation na = not applicable		

Table 62: Number and proportion of days hired in and out via *Hajira* arrangements (for agricultural tasks only¹⁸):

		No	%
Employers hiring in	Lean	569	61
	Peak	292	36
Labourers hiring out	Lean	470	74
	Peak	196	30

Table 63: Number and Proportion of Sampled Households and Individual Labourers in *Hajira* Arrangements:

		No	%
Individual labourers	Lean	64	98
	Peak	46	75
Labourer households	Lean	28	100
	Peak	13	50
Employer households	Lean	21	95
	Peak	17	94

¹⁸In the rest of the analysis of *hajira* arrangements, which follows this table, I include all daily waged time rate arrangements. In this table Forest Department and Panchayat work and daily paid non agricultural work have been omitted. Government work accounted for 56 days employment for sample labourers in the lean season and 3 days in the peak season. Sample employers hired in 50 days of non agricultural labour on daily time rate contracts in the lean season, while sample labourers hired out 48 days. In the peak season employers hired in 43 days non agricultural labour in *hajira* arrangements and labourers hired out 4.

more days were hired in and out in *hajira* contracts in the lean season than in the peak¹⁹.

Hajira arrangements exhibited diversity in type of work, wages/earnings, hours of work, form and timing of payment.

Type of Work:

The variation in the types of operation performed under *hajira* arrangements is reported before other intra-contractual variation, because other attributes of *hajira* arrangements, particularly earnings and the form of payment, are found to be strongly associated with certain types of work.

In the peak season about three quarters of days worked in *hajira* arrangements were spent cutting paddy (see table 64). Other days in the peak season were spent in other tasks associated with the harvest, including bullock cart driving, binding, stacking and threshing paddy. 84 per cent of lean season person days reported by employers and 74 per cent of those reported by labourers involved weeding paddy. Other days were spent in the application of fertiliser and

¹⁹The higher proportion of *hajira* days hired out by sample labourers than hired in by sample employers in the lean season is due to the lack of longer duration labour arrangements (described in sections 4.3.3 and 4.3.4) in the labourer sample. Such arrangements accounted for a large number of days per labourer for those employers who did hire them in. The discrepancy between the proportion of employer days in *hajira* arrangements in the lean and the peak seasons is due to the relatively high proportion of *thika* arrangements (4.3.2) associated with the *aman* harvest activities of the peak season. The low number of labourers hiring out on *hajira* arrangements in the peak season is due to the large number of days hired out in seasonal migration.

Table 64: Distribution of Days Worked in *Hajira* Arrangements by Type of Work:

Type of work	(percentage of days)			
	Employers hiring in		Labourers hiring out	
	Lean	Peak	Lean	Peak
Ploughing/				
earth moving	0	1	1	0
Cutting paddy	0	71	0	79
Binding paddy	0	4	0	5
Transplanting	1	0	0	0
Stacking paddy	0	3	0	3
Threshing/				
winnow paddy	1	4	0	2
Manual				
earthwork	2	0	3	0
Weeding				
(by hand)	60	0	40	0
(with spade)	25	0	34	0
Nonagric				
work	8	13	8	2
Chem				
application	0	0	4	0
Bullock cart				
driving	0	4	0	5
Other				
unspecified	2	0	10	1

pesticides, and non agricultural work. Combinations of activities were rarely reported, unlike in the Bardhaman locality. This is consistent with the institutionalising of activities within the *hajira* arrangement, which is discussed in the following section.

Earnings:

There was a marked seasonal difference in mean earnings in *hajira* arrangements. Aggregating over labourer and employer diaries, mean earnings per day were 2.00 kg in the lean season and 3.13 kg in the peak season. Table 65 shows that the modal range of earnings was 1.1-2 kg in the lean season and 2.1-3 kg in the peak. There was less variation of earnings around the mean in the peak than the lean season, suggesting a greater concentration of 'wage rates' in the former²⁰.

The range of daily earnings illustrated in table 65 further suggests that earnings were not standardised in either season. Lean season earnings ranged from 2 to over 5 kg of hulled rice equivalent, while all but a very few peak season work days were remunerated in the range 2 kg to 4 kg. The interseasonal difference in earnings is partially accounted for by shorter hours of work (see the following subsection). In addition, simple demand and supply logic explains why employers can offer a lower effective wage per hour. In both the

²⁰The standard deviation from mean wages in the lean season was 0.96 and 0.87 in labourer and employer records respectively, while the equivalent figures for the peak season were 0.41 and 0.39.

Table 65: The Distribution of Payments Received by Sampled Labourers or Made by Sampled Employers in *hajira* Arrangements:

		(percentage of days)					
		Kg of hulled rice equivalent per day					
		0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1+
-----		-----					
Employers	Lean	0	94	3	0	1	2
hiring in	Peak	0	0	56	42	1	1
Labourers	Lean	0	76	10	5	9	0
hiring out	Peak	2	1	55	43	0	0

transplanting and harvest peak seasons employers in the Purulia locality depend entirely on labourers from their own villages and the surrounding countryside to complete vital agricultural tasks on time. In the intervening period, but especially in the period immediately prior to the harvest, labourers require local employment or loans for survival. The inter-seasonal variation in wages is accounted for by this shifting balance of dependency.

In the pre-harvest season most households in the locality have exhausted their stocks of grain. Labour-sellers seek work and it may be in employers' interests to hire as many labourers as possible, to produce a sense of obligation to employers towards the time of the local harvest. Many labourer households gain access to the product of their own labour at harvest. Further, in the absence of obligation enforced by a combination of carrot (lean season employment in, say, weeding) and stick (lean season consumption loans with high implicit interest), it is hard to see what could prevent the drain of labour to the higher wage employment in Bardhaman.

The wide range of earnings *within* each season remains to be explained. In the Purulia locality much more than in the Bardhaman locality, particular types of work carry institutionalised payment norms. These are not fixed, but fall within commonly understood ranges. Although they are all daily arrangements, paid at a time rate, some of these norms

represent *de facto* arrangement types of their own defined by the type of work. An illustration is provided in table 66.

Men's and women's earnings often diverge. This is partly associated with the gender division of paid work (clearly illustrated by the exclusions indicated in table 66). Women were excluded from higher paid activities such as bullock cart driving and wood chopping. Moreover, women regularly earned less than men²¹ for the same and similar tasks. The power of employers to capitalise on an ideologically based lower evaluation of female with respect to male labour varied according to the seasonal shortage/surplus of hired labour. The wage for cutting *aus* and early *aman* paddy (between the lean and the peak seasons) was Rs 8 per day for women and Rs 10 per day for men. In the peak paddy harvesting season, crop cutting wages were equal. In the lean season the weeding of standing paddy was separated into two tasks: removing weeds by hand and turning the soil in between paddy plants. Employers tended to hire women for weeding by hand and always men for weeding with a spade. Mean earnings per day were 1.89 kg (s.d. 0.26) for the latter compared to 1.65 kg (s.d. 0.27) for the former. Overall, gender based wage differentials converged during peak seasons. Indeed, in the main ploughing

²¹According to employer records in the peak season, labourer's sex was significantly associated with earnings. With women accounting for less than half of earnings of less than 3.1 kg and men accounting for more than half, the chi-square of 7.4 was significant at the 0.05 per cent level.

Table 66: Archetypal Hajira Earnings and Hulled Rice Equivalents by Type of Work:

TYPE OF WORK	SEASON	ACTUAL PAYMENT (MEN)	ACTUAL PAYMENT (WOMEN)	HULLED RICE EQUIV
Weeding paddy (with spade)	lean	Rs 10 or 4 ser paddy	*	2 or 1.7 kg
Weeding paddy (by hand)	lean	*	Rs 7	1.4 kg
Building (unskilled)	lean	Rs 10	Rs 10	2 kg
Building (skilled)	lean	Rs 35 + tea + muri	*	7.4 kg
Forest Department	lean	Rs 24.65	Rs 24.65	4.9 kg
Chopping wood	lean	Rs 8 + 2 ser muri + bhat + tobacco + bathing oil	*	2.5 kg
Cut paddy	peak	Rs 10 + 2 ser muri	Rs 10 + 2 ser muri	2-2.4 kg
Driving bullock cart (with own draft power)	peak	Rs 20 + 2 ser muri + bhat + tobacco	*	5.8
Ploughing (with employer's draft power)	Ashar-Sraban (late June to early August)	5-6 ser paddy	*	2.1-2.5 kg
Transplanting paddy	Ashar-Sraban (late June to early August)	*	8 ser paddy + 1 ser rice + 2 ser muri + tobacco	4.7 kg

* indicates that the group is excluded from the particular type of work.

and transplanting season, daily rate transplanting earnings²², accruing mostly to women, exceed those of ploughmen (always men) using the employer's draught power. Typical daily earnings for transplanting were 8 *ser*²³ of paddy, 1 kg of rice and 2 *ser muri* (puffed rice) per day. This was equivalent to approximately 4.7 kg of hulled rice, far surpassing men's ploughing earnings of 5-6 *ser* paddy per day (equivalent to 2.1-2.5 kg of hulled rice). The ideologically informed division of labour works to exclude men from transplanting, exacerbating the shortage of peak season labour and overcoming the equally ideological lower valuation of women's to men's labour evident in the lean season.

Those activities which carry a relatively high remuneration account for some of the outlying values of earnings recorded in the diaries. In the lean season, for example, earnings equivalent to 4.7 kg per day of hulled rice were paid for 6 person days by one sampled employer, NM, for very late transplanting of *aman* paddy. The workers were all women from Kodallota and Bhuinyadi. One employer hired in 12 days of skilled building labour from outside the locality at Rs 35 per day. With tea and 2 *ser muri* this was equivalent to 7.4 kg of hulled rice. This very high earnings rate was paid because

²²*Aman* transplanting is more often performed via piece rate arrangements (or more precisely *thika* + *hajira* arrangements, where uprooting is paid at a piece rate and transplanting at a time rate). However, women's transplanting earnings remain at least as high as reported here.

²³A *ser* is a volumetric measure approximately equal to the volume of one kilogramme of hulled rice.

these particular skills were not available in the locality²⁴.

Most of the higher than modal payments recorded in labourers' diaries were accounted for by the 49 person days worked for the Forest Department. This publicly funded employment was paid at the statutory rate of Rs 24.65 per day, the equivalent of 4.9 kg of hulled rice. The days were split between 18 individual labourers (from 12 households) in Bhuinyadi, Kodallota and Namopara. The work was allocated by the Forest Department officer in consultation with the Arjhurapur Gram Panchayat representative and other members of the CPI(M) village level committee. A specific area of Forestry Department land in Arjhurapur mouza had recently been planted with saplings and the work involved clearing the weeds around each sapling. Because the work was in Arjhurapur mouza, labourers from Pukurgram were not hired. Indeed, the relatively low allocation of work to Kodallota labourers reflected their official location in a neighbouring mouza.

Eighteen other days of higher than modal payments were accounted for by wood chopping and carpentry work, for which the skills required were scarcer than for most agricultural tasks. The latter cases were exceptional as most carpentry fell under *thika* (piece rate) arrangements. Labourers chopping wood were paid at lower, standard rates for other work. Thus J, who received Rs 8, 2 *ser muri*,

²⁴I avoid using the distinction of skilled and unskilled labour as it might imply wrongly that activities such as cutting, binding and threshing paddy were unskilled.

bhat, tobacco and bathing oil (equivalent to 2.5 kg rice) per day for chopping wood was paid only 4 ser paddy for chotano (equivalent to 1.7 kg rice).

In the peak season, two sampled employers recorded payments of over 4 kg of hulled rice equivalent against a modal band of earnings of 2.1 - 3 kg rice. The two employers, C and A, hired in 6 person days to drive bullock carts carrying cut paddy from the fields at harvest. The draft power was provided by the labourers. Thus in this case, the earnings represent returns to both animal and human labour power. Two employer households hired in 5 person days of wood chopping between them.

Lower than modal peak season earnings were only recorded by sampled labourers not by employers. These were all cases of the repayment of *berhun* loans. Three days were worked by B, a woman, and two by N, a man, both from Pichan para. While the earnings range for cutting paddy was the equivalent of 2 - 2.4 kg of hulled rice (Rs 10 and 2 ser *muri*), B recorded that her loan of 3 kg of rice in the lean season was worked off at the rate of 1 kg per day. N had borrowed Rs 12 in the lean season, and was now working it off at the rate of Rs 6 per day. Both worked full six hour days for the same employer, C, who, though head of a sampled household, did not record the *berhun* payments in his daily records. This suggests that *berhun* loan repayments were understated by employer households. Underreporting of *berhun* by both employer and labourer

households was evident from interviews held after the end of the record-keeping. Although most individuals, when asked in general terms, reported that this form of arrangement occurred rarely now, specific further questions revealed that it was relatively widespread among poorer labour households.

According to labourer records, none of the higher than modal payments were made to labourers in the lowest wealth group (asset rank 6) in the peak season. This suggests further support for the hypothesis (see section 2.1) that relatively less poor labour selling households tend to enter arrangements on better terms than the poorest households.

Moreover, the cases of higher than modal earnings were not distributed proportionately among the different labour selling *jati*. In the peak season Santal and Bhuinya workers, who made up 27 and 19 per cent of sampled labour selling households respectively, reported 45 and 33 per cent of higher than modal earnings. The association of Santal para households with higher earnings was supported by a chi-squared value of 31.8, significant at the 0.05 per cent level. The association of Bhuinyadi households with higher earnings was evinced by a chi-squared value of 24.7, also significant at the 0.05 per cent level. Given that Santal labourers withdrew early from the diary collecting process this proportion is especially remarkable and may reflect the greater bargaining power of

these two groups in relation to Bhumij and Muslim labourers²⁵.

In Santal para, an indigenous mutual insurance scheme operated, under which paddy was stored for distribution within the para. This reduced the Santals' dependence on *berhun* loans. Bhuinya workers, who were considered by employers as being particularly enterprising, perceived themselves to be a local labour aristocracy, keeping close links with the large employer households of Pukurgram through the CPI(M). One Bhuinya household head was the elected CPI(M) Gram Panchayat representative for Arjhurapur (in June 1993 he was reelected and became Upa-Pradhan (deputy Pradhan)). The Local Secretary of the CPI(M) (the highest party cadre in Pholdanga Gram Panchayat), who had the most influence over party candidatures in Gram Panchayat elections, was also the biggest employer in the sample. Another Bhuinya male ran errands for LM's nephew, a shopkeeper.

It was implicitly hypothesised in 4.2.4 under 'Labourers' Records' that older workers would seek security as a priority over maximization of daily earnings and would thus be unavailable for occasional premium earnings possibilities. Pearson correlations revealed no significant association between the earnings per individual labourer per day in *hajira* arrange-

²⁵Hart (1992b, pp120-121) warns against reading off relative bargaining power from wages or earnings differentials between members of the same household. The point is relevant here too as the differentials may have arisen from socially constructed notions of the value of Santal and Bhuinya work on the one hand versus Bhumij and Muslim work on the other.

ments as a whole and a worker's age. Thus we have no evidence to support the hypothesis.

It was also hypothesised in section 4.2.4 under 'Employers' Records' that workers from hinterland villages bordering the locality would be willing to work under relatively disadvantageous terms and conditions. The peak season chi-squared value of 2.7 was not significant at the 5 per cent level and there is thus no evidence to support this hypothesis either.

Hours worked:

Longer hours were worked in the peak than the lean season as indicated by the higher modal value for hours in the former (see table 67). While the modal value of hours per day for both employer and labour household records was 5 in the lean season, it was 6 in the peak. The means were 5.3 and 5.9 hours respectively. The range of hours in the lean season was 4 to 10 and in the peak season 4 to 11. In both seasons employers' and labourers' records indicated weak correlations between hours and earnings for *hajira* arrangements. The following coefficients for hours and earnings were all significant at the 1 per cent level:

Lean labour records:	0.4384
Lean employer records:	0.1488
Peak labour records:	0.3469
Peak employer records:	0.4826

Table 67: The Distribution of Hours Worked in Hajira Arrangements:

		(percentage of days)							
		Hours worked per day							
		4	5	6	7	8	9	10	11

Employers hiring in	Lean	17	69	13	0	1	0	0	0
	Peak	1	31	51	12	2	1	1	1
Labourers hiring out	Lean	3	55	22	16	3	0	0	0
	Peak	1	30	59	7	1	2	0	0

The one per cent of work days of eight hour duration recorded in employer diaries in the lean season corresponded to the six days of transplanting labour hired in by NM (see preceding subsection). The three per cent of days reported as over eight hours by sampled labourers in the lean season involved three labourers in chopping wood and carpentry and were also discussed in the preceding subsection. Transplanting, woodchopping and carpentry were all remunerated by premium earnings compared with the main employment activity of the lean season - weeding paddy.

However, the cases of just 4 hours reported by labour households in the same season suggested that hours could be delinked from earnings. Eight labourers were involved in 17 days of weeding (both by hand and with a spade) and a total of three days ploughing and spraying chemical fertiliser. Remuneration for weeding paddy ranged from the equivalent of 1.7 to 2.1 kg of hulled rice equivalent, no different to the pay received for longer work days in the same operation. F, who spent two four hour days ploughing for M, received 6 *ser* paddy, 2 *ser muri*, oil and tobacco, the equivalent of 2.9 kg hulled rice. This was well above the mean lean season earnings of 2 kg per day and was associated with the transplanting of very late *aman* paddy.

Days of 8 and 9 hours duration reported by employers in the peak season corresponded to the tasks of driving the bullock cart and unskilled building work, which received premium

earnings (as discussed in the preceding section). Only three employer households, L, C, and A were involved. However, the four work days reported as of just 4 hours duration involved the main employment activities of the peak season - cutting and binding paddy - and yet still received premium earnings. These work days were reported by one employer, K. On the 16th and 19th Agrahayan he employed 2 workers, paying Rs 12 and 2 ser *muri* on the 16th for cutting paddy, and Rs 14, 2 ser *muri* and tobacco for binding paddy on the 19th. These payments, equivalent to 3.4 and 4 kg of hulled rice respectively, suggest high effective (implicit) wages. The payment of premium wages may have been necessitated by K's relatively small demand for hired wage labour and associated lack of negotiating power. Unable to offer lean season loans or advances or the prospect of other days of employment in the peak season, it may have been necessary for K to offer higher than mean earnings at a time of relatively scarce labour. Indeed, it was observed that this employer had to visit several households before finding labour. This suggests that those households with relatively small labour hiring requirements, will face higher labour costs per unit of time.

Working days of ten and eleven hours were reported by two employers in the peak season. All six days involved the transfer of cut paddy onto the trailer and its transport back from the field to the employer's threshing yard. The labourers working for M - J, Mu, and Bh - earned Rs 12 with two ser *muri* and two meals (the equivalent of 3.8 kg of hulled

rice in all). They worked alongside the *bhatua*, receiving the same daily food payment in addition to a daily wage. The two labourers (L and A) working for C received Rs 20, *muri*, one meal and tobacco.

Remuneration for the two 4 hour days reported by labour selling households in the peak season was also apparently unaffected by the length of the working day. Both involved the work of binding paddy and the workers received the equivalent of 2.9 kg of hulled rice. One of the cases of unusually long hours corresponded to the wood chopping discussed in the preceding subsection. Earnings more than compensated for the relatively long hours. However, most of the other cases were reported by one labourer, T, who received 5 *ser* paddy, *bhat* and *muri* from G for driving a bullock cart, threshing paddy and sowing a plot of *boro* paddy for nine hours each on separate days. A review of the original records revealed that this was the extension of a *kal munish* arrangement, discussed separately below.

Days worked in *hajira* arrangements thus vary greatly in length, not only between seasons and tasks but also between employers and labourers. The shorter length days worked in the lean season may be an institution, which has evolved to distribute a small amount of available work among hungry labourers - a kind of moral economy measure, the carrot component of the carrot and stick approach to labour-tying suggested earlier. Often an employer has a piece of work in

mind - say a field to weed or some wood to chop and there may thus be a piece rate behind an apparently time rate agreement. The concept of time was such that according to one employer, either a day's work finished at 2 pm and was remunerated with an agreed approximation to the daily rate or it finished at dusk, for which extra was paid, including a meal.

Form of Payment:

In the Purulia locality, unlike the Bardhaman locality, there was considerable variation in the form of payment. As illustrated in table 66, *hajira* arrangements were either paid fully in cash, fully in kind (usually in *ser* of paddy) or as cash or kind with *muri*. These are summarised into cash based and kind based payments in table 68. While peak season records showed the proportion of cash based payments heavily to outweigh kind based ones, lean season records indicated that a quarter to a half of work days were remunerated by kind based payments. Table 68 indicates the distribution of cash and kind based pay forms in each season. In accounting for this phenomenon Ramachandran has argued that workers prefer payment in kind, particularly in the main harvesting, threshing and transplanting seasons (1990). The reason given was that workers perceived kind payments as providing protection against the decline in the real value of cash wages. Indeed, in both the Purulia and Bardhaman study localities an increase in the local price of paddy was observed during the lean season, followed by a decrease after the commencement of

Table 68: Distribution of Days Worked in Hajira Arrangements by Form of Payment:

		(percentage of days)	
		Cash based	Kind based

Employers	Lean	73	27
hiring in	Peak	95	5
Labourers	Lean	52	48
hiring out	Peak	89	11

harvesting. However, seasonal migrants travelling to Bardhaman from Purulia for the *aman* paddy harvest valued payment in cash because of the problems of transporting accumulated kind payments and also as a means of recovering from debt and celebrating the forthcoming *mela*²⁶. The kind portion was consumed in the camp. I hypothesised that kind payments were more highly valued by labourers when paddy was relatively scarce and costly, while cash payments were more highly valued at other times²⁷. Kind payments were particularly important to more vulnerable households (defined as households with very little land and/or few adult workers) in the lean season.

Our data for *hajira* arrangements supports this hypothesis. In the lean season, labourers from households with two workers or less, for example, were paid in kind on 66 per cent of days, while those from larger households were paid in kind on 41 per cent of days. The chi-squared value of 32.3 was significant at the 0.05 per cent level. Employers in Arjhurapur, on average less wealthy than those in Pukurgram, paid only 24 per cent of lean season *hajira* work days in kind. Pukurgram employers paid 75 per cent of days in kind. The chi-squared value of 138.9 was significant at the 0.05 per cent level suggesting a strong positive association between employer residence (and by implication wealth) and the payment of wages

²⁶country fair

²⁷Preference for particular forms of payment were found to vary annually for similar reasons in the study of the village in Mahbubnagar District, Maharashtra reported by Binswanger et al (1984, p161).

in kind in the lean season. (In the peak season, all but one of the *hajira* work days hired in by Arjhurapur employers was paid in cash).

There was no significant relation between gender and form of payment. However, in the lean season, while women were paid in kind on the majority of days, men were more often paid in cash²⁸. This suggests a weak connection to the gender relations inside the household, where women were perceived as responsible for the daily reproduction of all members (see Chapter 6).

Time of Payment:

Payment on the day of work, which was standard practice in the lean season, occurred on only 30 per cent of days reported by labourers and 46 per cent of days reported by employers in the peak season (see table 69). At harvest, employers waited for as long as possible before payment as it was expected mostly in cash and the availability of cash depended on crop sales. The later the sale, the higher the price gained for the crop. As Marx has pointed out, this amounted to an interest free advance from labourers to employers²⁹ (cited in Bharadwaj,

²⁸However, the chi-squared statistic of 3.3 was significant only at the 7 per cent level.

²⁹James Mill, on the other hand, referring to payment at regular intervals, saw the capitalist as paying the labourer in advance of the final sale of the product (cited by Bharadwaj, 1989, p51). These arguments are not necessarily contradictory. Payment for, say, weeding a crop, is made in advance of the crop sale (unless the crop has been sold in advance). Delayed payments for harvest work, on the other hand, could be seen as interest free advances from labourers to employers.

Table 69: Distribution of Days Worked in Hajira Arrangements by Time of Payment:

Time of payment	(percentage of days)			
	Employers hiring in		Labourers hiring out	
	Lean	Peak	Lean	Peak
In full, same day	90	46	79	30
Part same day, part later	2	35	4	25
Full later	8	19	17	45

1989, p16).

Ramachandran found that timely payment for daily time rated work was related to the wealth of the employer, richer employers tending to pay wages on time simply because they were able to (1990, p200). In this study, however, I hypothesised the reverse: that, in the peak season, economically powerful employers would withhold payment for longer, maximising their gain from increased prices at the expense of the labourer. A cross tabulation of the time of payment by asset rank is given in table 70 below. It can be observed from the table that as the employer's asset rank decreases, there is an increasing tendency for payment to be made on the day of work. This suggests that, as hypothesised, wealthier employers tend to withhold payment more often than others in the harvest season.

4.3.2 Thika Arrangements

The number and proportion of days hired in and out in *thika* arrangements and the numbers and percentages of labourers and employers involved are illustrated in tables 71 and 72.

Much *thika* work was task specific (see table 73, below). This accounts for the interseasonal variation in the incidence of the arrangement and in the involvement of sampled households. Diversity within *thika* arrangements was found in terms of type of work, earnings, form and timing of payment.

Table 70: Crosstabulation of the Time of Payment in Peak Season Hajira Arrangements by Employer's Asset Rank (in number of days):

Asset rank	TIME OF PAYMENT		
	IN FULL, SAME DAY	PART SAME DAY, PART LATER	FULL LATER
1	25	26	48
2	79	72	14
3 and 4	46	19	0

The chi-square value of 96.8 was significant at the 0.05 per cent level.

Table 71: Number and Proportion of Days Hired In and Out in Thika Arrangements:

		No	%

Employers hiring in	Lean	60	6
	Peak	183	22
Labourers hiring out	Lean	28	4
	Peak	66	10

Table 72: Number and Proportion of Sampled Households and Individual Labourers in thika Arrangements:

		No	%

Individual labourers	Lean	4	6
	Peak	18	30
Labourer households	Lean	4	14
	Peak	10	38
Employer households	Lean	3	14
	Peak	14	78

Table 73: Distribution of Days Worked in Thika Arrangements by Type of Work:

Type of work	(percentage of days)		Labourers hiring out	
	Employers hiring in Lean	Peak	Lean	Peak

Cutting paddy	0	2	0	0
Binding paddy	0	30	0	71
Transplanting	0	0	4	0
Threshing/ winnow paddy	3	44	0	29
Nonagric work	97	24	96	0

Type of Work:

The arrangement was commonly used for binding and threshing paddy in the peak season and for skilled non agricultural work, such as roofing or joinery in the lean season (see table 73).

Earnings:

Thika arrangements are remunerated at a piece rate. Although not fixed, the rate per unit output is unique to each type of work, by definition. In the peak season, a typical rate for threshing paddy was 1.5 ser of paddy per pon³⁰. Binding was usually paid at Rs2 per pon. However, these rates are not fixed. Earnings are calculated as the product of the agreed rate and the units of work done.

The hours are not comparable with other contract types as work intensity increases greatly in piece rate arrangements. Observations of high earnings included person days employed by one sampled household for construction work.

Variations in earnings from *thika* arrangements are illustrated in table 74.

³⁰In the context of threshing and binding at harvest, a *pon* has the same connotation as a bushel, though its size is best related to an *anti* (bundle of paddy). There are 80 *anti* in a *pon*. These terms are also used at transplanting, when the paddy seedlings are very small and light, but retain the same meaning in terms of numbers of paddy plants.

Table 74 Distribution of Days Worked in *Thika* Arrangements by Earnings:

		(percentage of days)					
		Kg of hulled rice equivalent per day					
		0-1	1.1-2	2.1-3	3.1-4	4.1-5	5.1+
-----		-----					
Employers	Lean	0	0	0	7	0	93
hiring in	Peak	0	3	8	44	17	27
Labourers	Lean	0	0	24	33	0	43
hiring out	Peak	0	2	12	29	40	17

Relatively low payments were reported by one employer, D, in the peak season. Four labourers each worked one day for the equivalent of 1.9 kg of hulled rice. One, S, bound 5 *pon* of paddy, receiving Rs 1.50 per *pon*. Three others each threshed three *pon*. These labourers, two women and one man were from Kodallota, the *para* over which D practised some degree of proprietorship over the labour force, through both lean season advances and spatial proximity. The women labourers both worked an extra hour winnowing paddy and cleaning the threshing ground, but received no extra pay. This is an example of the exercise of employer power along the axes of both territoriality and gender. Not only was D the cultivator of the largest land-holding in Mahaltar and Kodallota, he was married to the daughter of the block level CPI(M) party secretary.

Form of Payment:

Although in both seasons, cash based payments were more common for *thika* arrangements than kind based ones, the contrast was less stark in the peak season when 28 per cent of payments reported by employers and 29 per cent of those reported by labourers were kind based (see table 75).

The ratio of cash to kind payments reported by employers in the lean season and labourers in the peak season corresponded exactly to the proportions in non agricultural work and threshing in the former case and binding and threshing in the

Table 75: Distribution of Days Worked in Thika Arrangements by Form of Payment:

		(percentage of days)	
		Cash based	Kind based

Employers hiring in	Lean	97	3
	Peak	72	28
Labourers hiring out	Lean	89	11
	Peak	71	29

latter. Such close correspondence between type of work and form of payment (visible from tables 73 and 75) illustrates the extent to which the terms and conditions of some arrangements are institutionally determined. In lean season labourer records, the kind and cash based payments corresponded to transplanting paddy and non agricultural work respectively. The few days of transplanting were carried out by young women workers (15-25), while the mainly male non agricultural workers fell into the higher age bands (35-55). Less than one third of days hired out in the lean season in *thika* involved employers from the Mandal para or Ager para. The majority of days were hired in by households in para normally associated with the hiring out of labour.

Time of Payment:

Payment for work done in *thika* contracts was usually made in full, whether on the day of work or afterwards (see table 76). The exception to this was the high proportion of advance payments to labourers reported by employers in the peak season. Much of this is accounted for by the large amount of building work commissioned on his house by one particular sampled employer.

Table 76: Distribution of Days Worked in Thika Arrangements by Time of Payment:

Time of payment	(percentage of days)			
	Employers hiring in		Labourers hiring out	
	Lean	Peak	Lean	Peak
In full, same day	35	45	56	21
Part same day, part later	3	4	4	9
Full later	62	26	40	68
Part advance, part same day	0	25	0	2

4.3.3 *Munish and Bhatua Arrangements*

Only one *munish* was employed by a sampled employer. He was employed for 18 days in the lean season and 20 days in the peak season. All payment was in kind. The employer household headed by L (the CPI(M) Local Secretary) was the wealthiest in the sample, the sole member of the highest asset rank. None of the sampled labourers were involved in *munish* arrangements. All four *bhatua* employed by sampled employer households were male. Like the *rakhal* arrangement in Bardhaman, remuneration included daily, monthly, and annual components in a number of forms. 109 days (13 per cent of the total for all arrangements) and 112 days (12 per cent of the total) were worked in the lean and peak seasons respectively. The four employers hiring in *bhatua* were the highest ranking in the sample in terms of wealth. They included the only member of asset rank one and three members of asset rank two. No sampled labourers hired out through a *bhatua* arrangement.

Table 77 shows the range of forms of payment and mean daily earnings for the *munish* and *bhatua* arrangements entered by the sampled households. The terms of these contracts are negotiated individually. Differences in the ages of the workers involved may account for some of the variation in mean daily earnings.

Bhatua and *munish* workers engaged in almost all types of work, including, in the lean season, repairing plot borders

Table 77: Payments to Munish and Bhatua Workers:

LABOURER NUMBER	EMPLOYER NUMBER	CLOTHES	FOOD	KIND	MEAN DAILY EARNINGS
1 (MUNISH)	9	1 gumcha 1 dhoti 1 ganji	1 x bhat 1 x muri per day	5 ser paddy per day	2.90 kg
2 (BHATUA)	9	1 gumcha 1 dhoti 1 ganji 1 shal	1 x bhat 1 x muri per day	0.25 ser paddy per day; 25 mon paddy p.a.	2.45 kg
3 (BHATUA)	2	1 gumcha 1 dhoti 1 ganji	1 x bhat 1 x muri per day	20 mon paddy p.a.	1.80 kg
4 (BHATUA)	40	1 gumcha 1 lunghi 1 dhoti 1 ganji	1 x bhat 1 x muri per day	0.25 ser paddy per day; 24 mon paddy p.a.	2.80 kg
5 (BHATUA)	25	1 gumcha 2 lunghi 1 dhoti 1 ganji	1 x bhat 1 x muri per day	15 ser paddy per month; 28 mon paddy p.a.	2.80 kg

Notes:

bhat = cooked rice as a full meal, usually with vegetables and/or dal

muri = puffed rice, eaten between meals

1 ser = volume measure (holds 1 kg hulled rice)

1 mon = 40 ser

gumcha = towel

ganji = vest

lungi = cloth piece tied around waist

dhoti = white cloth piece tied around waist, more formal than a lungi

shal = winter wrap

weeding, spraying chemical fertiliser, driving the bullock cart, sowing wheat; and in the peak season, cutting, binding, threshing and stacking paddy, driving the bullock cart, irrigation and combinations of livestock and fieldwork activities.

4.3.4 Bagal Arrangements

Most *bagal* contracts terminate at *Saraswati puja* (early February) or at the end of *Magh* (mid February). The gap between the end of the *bagali* year and the beginning of the next one in early *Baisakh* (late April) is a time used by *bagal* workers to encourage a perception of short supply among employers to aid them in negotiating the annual payment (whether as a lump sum or a rate per head of stock). One *bagal* pronounced that if he bargained with a different employer each year a rise in remuneration was likely. It is known for young *bagal* to enter *bhatua* arrangements with the same employer later and for the security of employment to be used to finance marriage expenses³¹.

Bagal work was hired in by six sampled employers in the peak season accounting for 18 per cent of total days hired in. It was hired out for just one per cent of days by one sampled labourer. In the lean season 5 employers hired in 13 per cent of days in *bagal* arrangements. The one *bagal* labourer in the

³¹Exit from *bagal* arrangements at the time of marriage was found by Sinha (1984, p26). In this study locality, boys ceased to work as *bagal* well before marriage.

sample worked as a *bagal* for 4 per cent of days. Table 78 shows the number of days worked and the daily earnings of *bagal* employed by sampled households.

Earnings of C, the *bagal* worker for employer L (asset rank 1) far exceeded those of other *bagal*. There were two reasons for this. First, C was responsible for the overall care of the livestock, including cleaning stalls and feeding as well as grazing. Secondly, he performed agricultural fieldwork whenever required. According to L's peak season records, C spent 20 days in livestock associated work, 4 days cutting paddy, 2 days driving the bullock cart and one day stacking paddy. As a part of his payment he received *bhat* and *muri* together with the regular *munish* and *bhatua* workers employed by L.

4.3.5 Seasonal Migration by Labourers from the Purulia Locality

In the peak season, sampled labour households as a whole earned more from employment outside than inside the locality. Using individual cases as illustrations, Chapter 5 is devoted to a consideration of the diversity of terms and conditions experienced by seasonal migrant labourers from the Purulia locality and similar source areas. It investigates the degree to which the seasonal migration is embedded in agrarian structure, in the social institutions of gender and caste and in spatial identities. Further it examines whether seasonal

Table 78: Days Worked and Daily Earnings of Bagal Workers Employed by Sampled Households:

Employer household number	Peak season		Lean season	
	No of days	Earnings per day	No of days	Earnings per day
3	1			
9	27	1.9	31	2.2
25	30	0.3	30	0.3
40	29	0.1	na	na
41	31	0.3	27	0.4
43	31	0.1	30	0.2

migration influences relations between local labourers and employers.

4.3.6 Other Types of Labour Arrangement - *kal munish*, *badal hal*, and *bet hal*

Kal munish (literally seasonal labourer) was an arrangement involving a seasonal advance followed by work for the creditor-employer at the latter's 'beck-and-call'. In the peak season, T took an advance of Rs 200 from G, agreeing to work it off at the rate of Rs 7.5 per day. T worked mainly driving the employer-creditor's bullock cart, bringing in the *aman* paddy crop. In addition to the cash "earned", T received *bhat*, *muri*, tobacco and oil each day. He worked for 8 to 9 hours per day, net of the midday meal break. When the loan was paid off, he worked a further four days for G, receiving 5 ser paddy per day in addition to the *bhat* and *muri*. This was the equivalent of 2.8 kg of rice per day, somewhat less than mean *hajira* earnings in the peak season and a relatively low effective hourly wage. The personal relation between T and G may have lasted longer than revealed in the diaries. T continued to work for G via *hajira* arrangements after the end of the *kal munish* arrangement. However, when I revisited the locality in October 1993, T had set up a cattle trading business in which he was occupied full-time.

badal hal - literally means exchange of plough, but refers to exchange labour generally. It takes place between households

of the same jati³² and para - one day's labour being compensated by a return day rather than payment in cash or kind. Very few such days were recorded. N, a Bhumij of Pichanpara worked for F (also Bhumij from Pichanpara) for 6 hours on 26th Sraban ploughing immediately followed by *aman* transplanting. In return, F worked six hours ploughing for N on the 27th.

bet hal - another form of exchange labour, but which operates across *jati*, *bet hal* is characterised by unequal mutuality - the powerful L household maintaining *bet hal* relations with one household in each of the main labour selling *para*. The households involved in Pichanpara (J and S), Bhuinyadi (A) and Namopara (B) were the most influential in their respective *para*. All four were exceptional within their neighbourhoods as they hired in much more labour than they hired out. Work carried out via *bet hal* is rewarded by a special meal provided by the dominant household. In the case of J (a Muslim), the food is provided in uncooked form. The dominant household need only then supply a day of their *bhatua*'s labour in return.

Bet hal is explicitly political - a means of control of neighbourhoods in the locality by the most powerful households. Only two other households maintain *bet hal* networks - S and C.

³²*Badal hal* also took place between caste Hindus of different *jati* but the same *para*. It was recorded by D (the only Brahmin household) re the work of H (from a Goala *jati* household). The Goala *jati* do not hire out labour but can take part in *badal hal*, in this case with a higher caste household.

4.4 SUMMARY

In this chapter I have examined the diverse types of hired labour arrangement existing in the second study locality, in Purulia district. The majority of labour days were hired in and out via *hajira* (daily time rate) arrangements, except in the peak season when more days were hired out in seasonal migration. The form and amount of *hajira* earnings varied fairly systematically between genders, seasons and agricultural operations. Indeed, as with *thika* (piece rate) earnings, they had become institutionalised.

Modal *hajira* earnings rose in the peak season and gender differentials converged, indicating the responsiveness of earnings levels to 'market' conditions. Effective wages per hour were also found to be lower in the lean than the peak season, although fewer hours were worked on average per day. Other variation in *hajira* earnings was explained via skills shortages, public employment (not usually more than 1-2 days per worker per year) at official minimum wages and higher remuneration for the combination of human and animal labour power (eg in ploughing or bullock cart driving).

However, even in *hajira* arrangements, there is no 'spot market' for labour. Several poor labour-selling households without alternative livelihood possibilities in the lean season pledged a number of days labour in the harvest against a subsistence loan. The rate of repayment - one day's work to

be performed for every 1 kg of hulled rice deducted from the debt - represented implicit interest of over 100 per cent. Earnings at harvest were equivalent to over 2 kg of hulled rice.

Higher than modal *hajira* earnings were not accessed by sampled labourers in the lowest asset group. According to the logistic regression analysis, the higher earnings available via *thika* arrangements were more likely to be accessed by better off, landed labourers. The poorest labourers were also found to be more likely to migrate for work at harvest (especially younger workers and those with few dependents). Labour arrangements here too are thus embedded in the landholding structure.

Wealthier employers were found to employ labourers in annual duration arrangements. The wealthiest, also acutely concerned with maintaining local political dominance, retained cross caste exchange labour relationships.

Labour arrangements are also embedded in caste and gender ideologies. When women's and men's labour are substitutes, the former is less valued than the latter on ideological grounds. Premium *hajira* earnings were available for men for weeding in the lean season and for cutting early paddy. However, at transplanting, from which men were excluded, women's earnings (whether *hajira* + *thika* or *hajira*) were higher than men's ploughing earnings and even compared well

with the 'going rate' in the Bardhaman locality. Access to relatively lucrative *thika* (piece rate) arrangements varied according to task and the gender division of hired labour. Women were excluded from *munish* and *bhatua* (both annual arrangements), though not from *bagal*. *Bagal* work was very low paid and only performed by the elderly or the very young of either sex.

Goala, Brahmin and Tamuli *jati* households excluded themselves from hiring out manual labour because they considered it beneath their status as caste Hindus. Santal and Bhuinya *jati* workers negotiated relatively high *hajira* rates on the basis that employers perceived them as more productive, a kind of labour aristocracy. These labourers' negotiating power was backed up, in the case of the Santals, by a mutual insurance mechanism and for the Bhuinya by political connections in the CPI(M). Unlike in Bardhaman, there was no 'official' CPI(M)-brokered rate; earnings were individually negotiated around institutional norms. In several cases, where the wage rate was expressed in kind, the norms had hardly changed for over a decade. This was being challenged by the growing earnings differential between employment in Bardhaman and Purulia. Workers voted with their feet.

4.5 CONCLUSIONS TO CHAPTERS THREE AND FOUR

The task of these two chapters has been to describe and explain the existence and coexistence of hired labour arrange-

ments in the two study localities. In section 2.1, I restated in brief the hypotheses developed from the literature review.

In the Bardhaman locality, more labour days were hired in and out in seasonally tied beck-and-call (*bandha*) arrangements than in daily time rate (*chuto*) arrangements. In the peak season sampled employers hired in more days from seasonal migrant labourers than from local labourers. Very few labourers hired out via annual duration (*rakhal* and *nagare*) arrangements. Gang-based piece rate (*phuron*) arrangements were not widespread except when there was a premium on timeliness and labour was scarce, and even then only in one part of the locality.

In the Purulia locality, more labour days were hired in and out via daily time rate (*hajira*) arrangements than via individual piece rate (*thika*) arrangements, although the latter accounted for about one fifth of days worked in the harvest season. In the peak season more days were hired out by sampled labourers outside the locality as seasonal migrants than inside as local labourers. No sampled labourers hired out via annual duration (*bhatua* and *munish*) arrangements, though the four richest sampled employers hired in *munish* and/or *bhatua* workers. *Bagal* arrangements, also of annual duration but involving labour extensive livestock grazing work and remunerated at very low rates, were more common. Exchange labour also took place usually within caste (*badal hal*) but in a few cases across caste (*bet hal*).

Although 'market forces' clearly influenced the level of remuneration in both localities, my evidence suggested the absence of 'spot markets' for 'casual labour'. Further, types of labour arrangement did not correspond neatly to types of work although there was more correspondence in the Purulia than the Bardhaman locality.

Because workers engaged in combinations of labour arrangements over time, individuals could not be used as the unit of analysis in the logistic regressions. Instead work days were used³³. A common combination of arrangements in the Bardhaman locality was *bandha* and *chuto* - a labourer committed to a seasonal beck-and-call arrangement working for other employers on a daily time rate basis when not required by his/her employer-creditor. In the Purulia locality, *hajira* and *thika* arrangements were worked by the same individual on different days. In the peak season, either or both of these were combined with seasonal migration. In both localities, households with more than one worker were able to hire out via different labour arrangements at the same time. The larger the number of able-bodied adult workers in a household, the greater the potential number of different types of labour arrangements.

Although the existence of seasonally tied labour arrangements in the Bardhaman locality and daily piece rate arrangements in

³³The regression analysis was restricted to those arrangement types in which a large number of individuals were involved.

the Purulia locality did not contradict the recruitment cost, risk-sharing and supervision cost/incentive rationales proposed by some of the new institutional economics theories reviewed in the first chapter, these theories could not explain the overall diversity of hired labour arrangements. In both localities the coexistence of daily time rate with other arrangement types was related to the differential needs and aspirations of both labour-selling and employer households. Seasonal credit-labour ties³⁴ were required by poorer households in both localities because of their smaller land-holdings and greater vulnerability to underconsumption in the lean season. Harvest season piece rate arrangements in the Purulia locality were accessed by less poor labourers, especially those who were not at the beck-and-call of employer-creditors.

Not only were labour arrangements embedded in the structure of land-holdings, they were also found to be embedded in locally specific ideologies of gender and caste. In neither locality did caste Hindus hire out manual labour. In the Bardhaman locality 'untouchable' and Muslim women, with the exception of widows, also excluded themselves. Widows of these *jati* received lower earnings than *adivasi* women labourers, although Bagdi workers considered *adivasi* to rank lower in the caste hierarchy. All women were excluded from long duration arrangements. Among labour-selling households in the Purulia

³⁴*Bandha* arrangements in the Bardhaman locality and *berhun* loans in the Purulia locality.

locality, gender-based exclusion worked by operation rather than by *jati*. The lower valuation of women's work was evident from their lower remuneration in the slack season in tasks for which male and female labour was substitutable. However, the ideological exclusion of male labour from transplanting coincided with tight 'labour market' conditions in the transplanting season, when women's earnings were higher than those of male ploughmen.

Age was not found to be related to variation in earnings in either locality. However, in the Bardhaman locality, age was positively related to the likelihood of a worker being in a seasonally tied rather than a daily time rate arrangement and, in the Purulia locality, negatively related to the likelihood of working in a seasonal migrant rather than a local time or piece rate arrangement.

In the Bardhaman locality, variation in labour arrangements was also embedded in party politics. Kadapur employers were restricted by the strength of enforcement of the CPI(M)'s anti-piece rate policy from employing agricultural workers via piece rate (*phuron*) arrangements. Congress(I) - supporting Dhanpur employers were not only able to use piece rate arrangements, but were also unrestrained in bidding up the remuneration of seasonal migrant labourers. In the chapter which follows, I examine in more detail the seasonal migration of labourers between the areas of which the two localities are parts.

CHAPTER FIVE: SEASONAL MIGRATION FOR WAGE LABOUR IN RURAL WEST BENGAL

5.1 INTRODUCTION

The geographical mobility of labour has been neglected in research on contractual arrangements in rural Asia, partly because of the insistence of some economists that imperfect markets for information on worker characteristics lead employers to avoid risk by operating a closed market (see eg, Binswanger and Rosenzweig, 1984, p33; Osmani, 1990, pp20-21), and partly because ethnographic fieldwork has most conveniently been focused on a village rather than a theme. "...[T]he method of investigation (fieldwork) dictated the location of analysis (the village), and was decisive...for the elaboration of the theme of investigation" (Breman, 1989, p127). In this chapter, I describe and seek to explain the flow and pattern of seasonal migration out of the Purulia locality and into the Bardhaman locality.

The limited evidence available suggests that the reproduction of labour selling households in the Purulia locality depends on migration in certain seasons, while the same migration is central to employers' agricultural production in the Bardhaman locality. Despite being at least two days journey apart, the areas of which each locality is to some extent representative are linked by these temporary population movements. Thus any attempt to explain the existence and coexistence of diverse

labour arrangements in the study localities must entail an analysis of the different types of arrangement for hiring out migrant labourers. The present chapter also answers one of the criticisms levelled at empirical work on migration, which is that it almost always concentrates on either the source or the destination locality (Connell et al, 1976, p3; Yang, 1979, p39). Here I investigate the effect of migration on relations of production and reproduction in both a source and a destination area.

Migration has been theorised both as the outcome of an individual choice in behavioural models (eg Todaro, 1969) and as the inevitable consequence of capitalist development in structural models (eg Standing, 1985). Structural theories also explain migration as the deliberate attempt of employers to counter local labourers' power by hiring labour from outside the work locality, in direct contrast to the theories providing rationales for the geographical *immobility* of labour from the employers' viewpoint. The second section of this chapter briefly sets out the limitations of these approaches as explanations of employment migration and develops hypotheses regarding the causes and consequences of the seasonal migration with which I am concerned. In the third section, these hypotheses are examined using data from the two study localities.

In conclusion it is argued that as well as adding to the livelihood possibilities of labour sellers, migration

influences the livelihoods of all those involved in hired labour exchange through its effect on bargaining power in both source and destination areas. In addition to their usefulness to employers in controlling the aspirations of local labourers, migrants themselves are controlled by arrears payments and their recruitment from multiple source areas. However, there is no evidence to suggest that these reflect a collusive strategy by employers in the destination locality. Rather they are outcomes of a complex mix of negotiating processes, which work in favour of employers.

5.2 THEORIES OF MIGRATION

Migration is commonly used as an umbrella term for the movement of people between places of residence either on a temporary or permanent basis. Theoretical work has focused on the permanent migration of labour between "rural" / "traditional" / "pre-capitalist" and "urban" / "modern" / "capitalist" sectors (Todaro, 1969, 1976, 1980; Thadani and Todaro, 1984; Sabot, 1982; Shrestha, 1990; Stark, 1991) often in the context of studies of urbanisation (eg Williamson, 1988). The emphasis has been on explaining the phenomenon of migration rather than the particular types of labour arrangement entered by migrant labourers.

The study of repeated temporary migration or labour circulation has stressed mobility between rural and urban areas (Standing, 1985, Chant and Radcliffe, 1992). With some

very rare exceptions (eg Beals and Menezes, 1970; Breman, 1985), seasonal rural-rural migration is not specifically addressed (Chapman and Prothero, 1985, p19). Breman has argued that the myth of the static village has been perpetuated by the tendency of rural studies in general to do no more than mention rural-rural seasonal migration (op. cit., p191; see also Gill, 1991, p139-140). Yet, in India, "by far the greater part of labour migration begins and ends within the rural milieu" (Breman, op. cit., pp xvii - xviii).

One reason for the dearth of theories of seasonal rural-rural migration is the lack of official data (Gill, p139). In India, neither the decennial census, nor the National Sample Survey have measured the incidence of such migration or revealed which types of individuals and households migrate¹. Another reason for the invisibility of rural-rural migration is the predominant theoretical concern with urbanisation, and particularly with explanations for urban unemployment.

5.2.1 Behavioural/Individualist Theories

The original Todaro model sought to explain why migration to cities continued in the face of urban (formal sector) unemployment. Migrants made individual calculations comparing the present value of expected future income in their source

¹However, according to Kalpana Bardhan, NSS and Census data indicate that seasonal migrants from rural areas are typically male and move more commonly within than between districts (Bardhan, 1977; cited by Agarwal, 1990, p349). The findings reported later in this chapter concern, on the contrary, inter district migration by females and males.

area with that in the destination area. The decision was thus based not simply on wage differentials but on differentials in expected income adjusted for the perceived likelihood of urban formal sector employment (Todaro, 1969). Thus if expected earning differentials were great enough, migration and high levels of urban unemployment would coexist. The instrumentally rational migrant would be willing to sit out long spells in the urban traditional sector (seen as equivalent to unemployment in the urban formal sector (ibid, p139, n3)) provided he perceived a high probability of regular employment.

Todaro's model has been criticised for, among many other things, the assumption of labour homogeneity (Williamson, 1988, pp445-6; Breman, 1985, p219). The motivations for and consequences of opportunistic employment migration by educated young men from relatively well off cultivator households has been contrasted with labour migration in desperation by the poorest (Connell et al, 1976, p24). In later collaborative work, Todaro implicitly acknowledged gender differences in migration decision-making (Thadani and Todaro, 1984). The earlier expected incomes hypothesis was extended to the analysis of what the authors regarded as the distinctive determinants of women's migration. Expected income differentials were combined with factors influencing women's marriage migration, and as an independent variable, "a sex-role constraint variable designed to measure the sociocultural obstacles to geographic mobility faced primarily by women qua

women" (ibid, p51). Chant and Radcliffe rightly point out that this approach, while 'female-aware' is not 'gender-aware' as it treats women as a special group whose migration needs to be explained, while men's does not (1991, p20). Moreover, class and other social differentiation among women (such as caste or ethnicity) are not causally linked up to differences in migration patterns.

More recent neo-classical economics literature summarised in Bloom and Stark's short paper, entitled 'The New Economics of Labour Migration'², has explicitly analysed differences between migrants on the bases of 'relative deprivation' (perception of local wealth inequalities). A person, who is more 'relatively deprived' can be expected to have a stronger incentive to migrate than a person who is less 'relatively deprived'. Migration itself affects the relative deprivation of non migrants if it alters the distribution of wealth in a locality. Bloom and Stark also report that migration is no longer seen simply as an individual choice, but as the outcome of negotiation between the individual and their family, which depends on the relative bargaining power of both. Migration is a "calculated strategy" based on "mutual interdependence" rather than "individual independence" (Stark, 1991, pp25-26). Moreover, families deliberately allocate workers to different

²This paper (originally published in 1985 in the *American Economic Review* (vol 75)) and the papers by Katz and Stark cited below (originally published in the *Economic Journal* (1987, vol 97) and the *Journal of Labour Economics* (1986, vol 4)), have been reprinted as Chapters 2, 13 and 5 respectively of Stark (1991). Page references given here refer to the reprinted version.

sectors with negatively correlated earnings in order to minimise risk (ibid, p26).

Just as others cited at the beginning of this chapter have explained the immobility of rural labour by the existence of imperfect markets for information - employers hire in local labour by preference because they have detailed knowledge of the productivity of individual local workers - Katz and Stark have turned the model around to explain why low productivity workers move to employers who lack information on their productivity. They allege (without indicating the source of their hunch) that in "rural India some farmhands continuously shift from one village to another rather than back and forth within a specific well-defined group of villages" (ibid, p204, n5).

Katz and Stark cite several studies which have suggested an empirical problem for the Todaro model - expected income has been found to be lower in the urban area than in the rural area (ibid, p46). They attempt to resolve this by building "social rank" into the model. Thus individuals, who value both wealth (or income) and rank may choose lower expected income if there is "even a small prospect of greatly enhancing their rank" (ibid, p55).

At least three of the fundamental problems of the Todaro model for the analysis of seasonal migration remain in these more recent theoretical developments. First, like Todaro, Katz and

stark appear to lack knowledge of rural areas³ given their vague and inadequate portrayal of the movements of "farmhands" in rural India. Secondly, Katz and Stark's 'social rank' solution to the persistence of migration in the face of lower expected destination than source area earnings fails to consider the whole gamut of determinants of social rank in source villages, including the institutions of caste and gender. As hiring out manual labour *per se* carries low social status, seasonal migration is unlikely to be a part of a strategy to increase social rank. Thirdly, the implicit assumption of instrumental decision making is retained. Contrary evidence is provided by Yang, who deduced that seasonal migration became *habitual* for rural-rural migrants in Saran District of Bihar in the late nineteenth and early twentieth centuries as some migrated regardless of interannual variations in production conditions in their own villages (1979, pp54-55).

There is now ample evidence of inter-village wage differences in rural India (eg Farmer, 1977; Bardhan and Rudra, 1986), leaving aside the intra-village earnings differences emphasised in this study. In such circumstances, rural-rural migration is not surprising - from conventional economic theory we would expect labour from low-wage villages to move to high-wage villages. Given interseasonal wage and employment variation, where seasonal peaks in one area

³Breman gives this lack of knowledge as the first in a list of criticisms of the Todaro model (1985, p219).

coincide with seasonal troughs in a neighbouring area, the same theory would predict this migration to be seasonal, all other things being equal.

A theory of complementary rural-rural seasonal migration has been developed for Ghana. Migration in West Africa is predominantly temporary. Seasonal migration in Ghana has been modelled as an efficient equilibrating mechanism for individuals, where the seasonality of production manifests in complementary peaks in labour demand over space. The migration of subsistence farmers from northern to southern Ghana - with cocoa and multiple food crops, and industrial and mining employment - in their slack production seasons persisted because the combined income from work in both exceeded income from either "'full-time' employment in the North or permanent migration" (Beals and Menezes, 1970, pp109 and 111).

Gill argues that seasonal rural-rural migration is often complementary, (1991, p142; see also Chant and Radcliffe, *op. cit.*, p10; Connell et al, 1976, p14) citing as an example the work of Chatterjee (1983) on migrations into Bardhaman District from the neighbouring districts of Bihar and West Bengal.

Drawing on Rempel's typology of rural seasonal migrants in Africa (1981), Gill portrays a global tendency for migration movements complementary to the migrants' own production

(p143). Indeed, seasonal migrants are characterised according to Rempel's list of common characteristics of rural seasonal migrants, including that they tend to be landed rather than landless (Gill, loc. cit.). We have already shown in Chapter 4 that in the Purulia locality the landholding of a labourer household is negatively related to the odds that it will be in a seasonal migrant labour arrangement on a particular day in the main paddy harvest season. Given that Rempel's work is based on African literature, it is hardly surprising that his characteristics of rural migrants are not directly transferable to the Indian sub-continent. Indeed, Gill's model of migrant decision-making based on an intuitive cost-benefit analysis (pp144-145) does not take us any further than the rural-urban migration models in understanding patterns of seasonal migration. In particular, it does not consider the role of migration in the context of contradictory interests of employers and labourers in both source and destination areas. The stress on complementarity obscures the analysis of the use of migrant labourers by employers to control local labourers as well as consideration of employers' control over the migrants themselves.

In contrast, Bloom and Stark (op. cit.) consider how migration may be determined by the strategic action of labourers in the source area. Thus where employers behave oligopsonistically, colluding to hold wages or employment down, say, "labour migration can constitute a credible counter-strategy" benefitting non-migrants as well as migrants in source areas

via a "leftward shift in the supply curve of labour" (Stark, 1991, p27). Even if such a strategic response is not clearly identifiable, it is intuitively quite likely that in particular agrarian structures, seasonal outmigration could produce the effect of increased labourer bargaining power. Moreover, employers in destination areas may use migrants to create a larger labour pool (loc. cit.). Although Bloom and Stark do not spell out the rationale for this employer behaviour, they are referring implicitly to a deliberate employer strategy to shift the supply curve of labour to the right.

5.2.2 Structuralist Theories

Structuralist approaches have tended to analyse migration as part of a transition process, usually from feudal to capitalist production relations. (Meillassoux, 1981; Breman, 1984, 1985, 1990; Standing, 1985a; Shrestha, 1990). Rural-urban migration in particular has been theorised as a process necessary to the development of industrial capitalism, which requires workers to be 'free' in the double sense that they are 'free' to hire out wage labour and 'free' from ownership of the means of production (Standing, 1981, p192).

Lenin's discussion of the motivations for and conditions of migration for agricultural wage workers in late nineteenth century Russia illustrates one of the main contradictions inherent in the structural approach (1964, pp240-254). He

shows how an annual southward movement of two million agricultural wage workers was characterised by danger and deprivation. For those who travelled by *dubi* (river boat), capsizing was not uncommon. Others could afford to carry only meagre supplies for the 10-12 day walk (pp245-246). At the labour market place, workers' packs would be prodded by prospective employers, willing to negotiate only when they could feel the packs were nearly empty. Working days lasted 12 to 15 hours often in insanitary conditions (pp250-251). Yet Lenin argues that the migration of agricultural wage labour was *progressive* because workers earned higher wages than in the source areas, bonded labour and labour service were destroyed and people developed "from an independent acquaintance with the different relations and orders of things in the South and in the North, in agriculture and in industry, in the capital and in the backwoods" (pp252-254).

Shrestha's framework "views migration as a structural process that is systematically produced and reproduced" (p42, my emphasis) out of the "mutually reinforcing dialectical relationship" between changes in social relations of production and the uneven geographical distribution of state-led development. On the one hand, technological change in agriculture has lead to the separation of labour from land and increasing dependence on wage employment (p55). On the other, the post-colonial state, whose "policies and interests are closely linked with those of international monopoly capital" undertakes the development of capitalism through planning

(p59). Migration by the poor is again for survival - a choice only insofar as adapting to new social relations of production is not feasible and they are unwilling to revolt against dominant classes in the source areas. In contrast to the methodological individualist models outlined in 5.2.1, migrants are differentiated according to class. Only "dominant class" migrants make a strategic choice (pp62-3). "[T]he process of migration cannot be analyzed and explained in isolation from the whole socio-spatial structure and the historical conditions under which it came to exist, and the political and socioeconomic conditions under which it is perpetuated" (p63). Shrestha acknowledged that seasonal migration could be seen as a "migration of dispatch" - but that even in this type, the migration of members of poor households could be differentiated by the expenditure of remittances on daily survival, while better off households used remittances to strengthen their positions in the agrarian structure (p67, n10). Migration may be an act of desperation by some and yet one of opportunism by others (Van Schendel and Faraizi, 1984).

Both Lenin and Shrestha lay stress on differential earnings and, ironically perhaps, Shrestha's analysis could be construed as one of choices under constraint. The behavioural and structural models are thus often complementary rather than contradictory (Hugo, 1982, p72, cited by Chapman and Prothero, 1985, p25).

Social and economic differentiation among migrants renders futile attempts, such as those summarised by Gill (op. cit., pp132-134), to present either a 'pessimistic' or an 'optimistic' interpretation of migration. Van Schendel and Faraizi differentiate between three forms of seasonal rural-rural migration in Bangladesh - structured migration using known channels, rural vagrancy, and "free market" migration, which involves arriving at labour market places and negotiating with employers (op. cit., pp54-57). Even within the last type of seasonal migration, economic differentiation has been observed, in as much as landed migrants in Gujarat use the greater quantity of food they are able to carry with them on the journey to strengthen their negotiating position (Breman, 1985, pp227-228).

The structural literature draws attention to the advantages of migrant labour to capitalist production: in particular, if labour power is produced and reproduced in source areas under conditions of petty commodity production, capitalist employers in destination areas do not bear that cost in wages (Burawoy, 1980; Meillassoux, 1981, Ch5). Further, the opposing class interests of migrant labourers and their employers are emphasised (Standing, 1985a, pp5-6). Standing differs from Shrestha in his use of labour circulation as a distinct category of "'safety valve' migration" to be contrasted with long duration migration associated with socio-economic mobility (p7). Standing argues that circular migration undermines "traditional social relations" in the source areas.

It can enable employers to back out of long standing reciprocal obligations, while bringing in awareness of more regulated employment conditions among labourers. At the same time by "reducing labour availability at critical periods" the capacity of employers in source areas "to reproduce means of production and maintain levels of output" deteriorates (p10). Importantly for the analysis which follows, Standing also shows how temporarily migrant labourers can be used to divide the workforce in destination areas. The employment of migrants from several geographical sources or from diverse ethnic groups militates against labourer solidarity and enables employers more easily to control local labourers. Meanwhile, migrants themselves may be controlled via the payment of advances and/or the withholding of wages (pp19-24; see also Harvey, 1982, p384).

Although Rudra collected detailed case material on seasonal rural-rural migration in West Bengal (1982, pp123-128), he maintained that his model of the self-contained village society, which centred around the notion of boundaries to cross-village labour hire (see Chapter 1), was unaffected. Migration "strengthen[ed] rather than weaken[ed] the isolated character of the villages" (ibid., p128). This may be true in the sense he argues - the extra supply of labourers from outside the village enables employers to fulfil total labour requirements without breaking barriers to employment between neighbouring villages. However, Rudra does not take into account the effect of the gradual settling of migrants on the

'self-contained village society', in particular on his characterisation of labourers as a class and on the supposedly unitary village ideology (see Chapter 1). Nor does he concede that the presence and potential presence of seasonal migrants augments employers' bargaining power in destination villages⁴, while the possibility of seasonal migration augments labourers' bargaining power in source villages.

5.2.3 Issues for Investigation

C. Wood has attempted to integrate structural and behavioural theories of rural migration into a single conceptual framework using the Deere and de Janvry model of household production and consumption (Wood, 1981). Thus within a specific socioeconomic, political and physical environment, households pursue "sustenance strategies" for their "maintenance and reproduction", in which migration is "firmly embedded" (p342)⁵. Agarwal has similarly conceptualised seasonal rural-rural migration for manual work in India as an actual or potential part of the deployment of labour by households (1990, pp349-352). In this chapter too, seasonal migration is seen as part of household labour deployment and the employment of migrant labourers is conceived of as part of the overall

⁴G. Wood has shown for a destination village in rural Bangladesh that the inflow of migrant labourers depressed demand for local labour. Local labourers increasingly sought non-agricultural work in nearby Comilla town. The resulting segmentation of the workforce changed the workers' relationship with rich employers by decreasing the feasibility of united action for improved conditions (1976, pp152-154).

⁵See Lieten and Nieuwenhuys (1989) for a critique of the concept of strategy in this context.

household reproduction and accumulation strategy of rural employers.

In the next section I describe (with the limited data available) the flow and pattern of seasonal migrant labour in the study area. Consistent with the overall objective of explaining the coexistence of diverse labour arrangements, I attempt to explain why particular individuals and households in the Purulia locality organised and timed their migration differently (or did not migrate at all, despite high expected earnings differentials). The effect of migration on labour arrangements between local labourers and employers in the source and destination areas is also considered.

The following propositions will be examined:

i) The pattern and flow of seasonal rural-rural migration in West Bengal is not determined by wage/earnings differentials alone, although these play an important role. The answers to the questions of who migrates, when and why are embedded in the local agrarian structure, in ideologies of caste, gender and in spatial identities.

ii) Of the seasonal migrant labourers, poorer individuals and households are more likely to migrate out of need than in expectation of accumulation.

iii) Contrary to Rudra's assertion that migration does not affect the relations between local labourers and local employers, migration has the effect of increasing the relative bargaining power of labourers (migrant and non-migrant) in the source locality and the relative bargaining power of employers with respect to local labourers in the destination locality. However, this is not necessarily the result of a strategy agreed by combined labourers (in the former case) or oligopsonistic employers (in the latter) as Bloom and Stark suggest.

5.3 EASTWARDS SEASONAL MIGRATION IN WEST BENGAL

Travelling into and out of Bardhaman District in the *aman* and *boro* paddy transplanting and harvesting seasons, it is impossible to ignore the groups of mainly *adivasi* labourers carrying cooking implements and/or "savings" of hulled rice, often speaking in Santali, and vying for space on buses and trains.

Four times a year hundreds of thousands of agricultural labourers enter the Gangetic plains of central southern West Bengal from unirrigated areas of surrounding districts to take part in the transplanting and harvesting of *aman* and *boro* paddy (see directional flow in Maps 4 and 5). Yet no official data exists to indicate the numbers of workers involved, the timing of migration or changes in the numbers of migrants and

MAP 4: ORIGINS AND DESTINATIONS OF SEASONAL MIGRANTS TO THE BARDHAMAN LOCALITY, AMAN HARVEST, NOVEMBER - DECEMBER 1991



KEY

- Migrant source area.....●
 - Migrant labour market places.....X
 - Study localities.....X
- | | | |
|---|---|--------------|
| <div style="display: inline-block; border: 1px solid black; border-radius: 50%; padding: 2px; text-align: center;">Ku</div> | = | Kusumgram |
| <div style="display: inline-block; border: 1px solid black; border-radius: 50%; padding: 2px; text-align: center;">Kr</div> | = | Krishnanagar |
| <div style="display: inline-block; border: 1px solid black; border-radius: 50%; padding: 2px; text-align: center;">Ka</div> | = | Katwa |
| <div style="display: inline-block; border: 1px solid black; border-radius: 50%; padding: 2px; text-align: center;">Ba</div> | = | Bardhaman |

Adapted from 'An Atlas of India', Delhi: Oxford University Press, 1990

MAP 5: DESTINATIONS OF SEASONAL MIGRANTS FROM THE PURULIA LOCALITY AMAN HARVEST, NOVEMBER - DECEMBER 1991



KEY

- Purulia locality migrants' destination areas.....●
- Migrant labour market place.....⊗
- Study localities.....X

Adapted from 'An Atlas of India', Delhi: Oxford University Press 1990

pattern of migration over time. This stream of migration is also underresearched⁶.

Seasonal migration into and across parts of Bengal was common in the late nineteenth and early twentieth centuries (Yang, 1979; van Schendel and Faraizi, 1985, pp50-57; S. Sen, 1992, p26; Bose, 1993, p86). Permanent migration widening the extensive margins of Bengal agriculture had continued into the 1910s (Bose, 1986, p50). In the decades that followed, migration to work in the collieries of western Bengal was increasingly common (Mohapatra, 1985; Rothermund et al, 1980). Yang shows that while at first most of the longer distance migrants were men, who left families behind and walked to their destination, with the coming of the train and the improvement of information from returnees, increasing numbers of women and children used to join the cold season movement (Yang, p53). In 1891, a year of severe flooding in Saran District, it was estimated that over 80,000 people migrated east for the season. Even today, in our two study localities several types of migration coexist. Some formerly seasonal migrants have settled in the Bardhaman locality, while much of the land in the Purulia locality is owned by caste Hindus, who bought it with the compensation received for lands lost after

⁶The main exceptions are Chatterjee (1983 and 1991). Yet few students of agrarian labour in source or destination areas have been able to ignore the phenomenon (Rudra, 1982, pp123-8; Chakrabarti, 1986, pp131-2; Narayan Banerjee, 1988; Singha Roy, 1992; Webster, 1993). Evidence from other parts of the subcontinent suggest that despite its relative neglect in rural labour studies, seasonal migration is relatively widespread (eg Breman, 1979, 1985 for Gujarat; Rahman and Das, 1982 and Datta, 1991 for Bangladesh; Oberoi and Manmohan Singh, 1980 for Punjab ; Crooks and Ranbada, 1981, for Sri Lanka).

the flooding of the area around the Kangsabati dam in Bankura District. Some Tamuli men in the Purulia locality own small businesses in Hazaribagh, Bihar, while other Bhumij boys migrated for construction work to Indore in Madhya Pradesh in 1990. Most married women in both localities were born elsewhere⁷.

In this chapter, I focus on seasonal migration for agricultural employment because of its numerical importance in both localities and because its explanation falls within the main objective of this project - to explain the existence and coexistence of diverse institutional arrangements for hired labour. Moreover, it connects the areas of which the two study localities are a part. As there are no official data to indicate the extent of seasonal migration between the two localities, I rely largely on data gathered from sampled households. These enable us only to scratch the surface of possible explanations. More comprehensive studies with a primary focus on seasonal migration will be required before the arguments tentatively developed here can be examined for the region as a whole.

5.3.1 The Patterns of Flow and Direction of Movement

Data from the Bardhaman locality suggest that the migrants come from diverse districts of origin in West Bengal and

⁷See Rosenzweig and Stark, 1989, who model this most numerically important of migration types in rural India.

Bihar. These include, moving in a swathe from south to north, Singhbhum, Santhal Parganas and Purnea districts in Bihar and Bankura, Purulia, Birbhum, Murshidabad, Malda and West Dinajpur districts in West Bengal (see Map 4).

At the start of the *aman* paddy transplanting of June-July 1991, one observer counted 70,000 migrants leaving from just one 'market place' - the Govinda Nagar bus stand in Bankura town. On the other hand the Bankura district authorities, estimated that the annual migration for the *aman* harvest had declined from approximately 50,000 in the mid 1980s to 15,000 in 1989 and 1990. This decline, they argued, was due to the successful development policies implemented in the district. They acknowledged, however, that there had been a resurgence of the earlier scale of migration in the *aman* harvest at the end of 1991, attributing the change to the temporary restrictions imposed on development expenditure following attempts to reduce the budget deficit by the central government after the general elections earlier in the year⁸.

A further indication of the scale of the seasonal migration in the source districts is found in the Purulia District Plan for 1991-92. The authorities in Purulia regarded it as a 'menacing problem' and dedicated their development efforts to reducing the 'alarming exodus of labourers' (Government of

⁸Debajyoti Chattopadhyay, personal communication. Chattopadhyay, the Bankura correspondent of the *The Statesman* newspaper estimated the figure of 70,000 by interviewing the conductors of bus services between the bus stand and labour hiring areas. For 15 days, 30 buses per day carried 150 migrants each.

West Bengal, Purulia District Draft Annual Plan, 1991-92, pp1 and 6)⁹. Given the rapid increases in production of paddy in the late 1980s, and the labour intensive nature of transplanting and harvesting work, it would not be unreasonable to suggest that demand for labour was increasing faster than supply.

Most of the data reported here refers to just one season - the aman paddy harvest of November-December 1991. In that season 110 individuals migrated eastwards out of the 247 households resident in the source locality in Purulia District (see table 79). Of our sample of 17 employer households in the destination locality in Bardhaman District, 11 hired in a total of 66 migrant labourers from 9 source districts (see table 80).

Although most of the sample of 38 local labourers in the destination locality found almost full employment in the harvest season (a mean of 22 days per worker), the majority of labour days hired in by sampled employers were worked by migrants (1142 out of 2013). At the same time, more was earned outside the source locality by seasonally migrating labourers than inside by non migrating labourers, although the aman harvests in the Purulia and Bardhaman localities overlapped.

⁹The ostensible cause for this concern was the well-being of the labourers involved, though the real cause was thinly disguised self interest. "The overall domination of the privileged classes over the decentralised power structure...remains" at the district level in West Bengal (Acharya, 1993, p1080; see also D. Bhattacharyya, 1993).

Table 79: The Number of Individual Seasonal Migrant Workers Leaving the Purulia Locality for the Aman Paddy Harvest, Agrahayan 1398 (late November-early December 1991):

PARA	NUMBER OF MIGRANTS		
	MALE	FEMALE	TOTAL
SANTAL	13	12	25
BHUINYADI	9	8	17
MAHALTAR	3?	3?	6?
NAMO	11	11	22
PICHAN	12	15	27
KODALLOTA	6	7	13
TOTAL	54	56	110

Table 80: The Number of Migrant Labourers Working for Sampled Employers in the Bardhaman Locality by Thana and District of Origin for the Aman Paddy Harvest, Aqrahayan 1398 (late November-early December, 1991):

EMPLOYER	NO. OF MIGRANTS	THANA	DISTRICT
KM	9	BAHARAGORA	SINGHBHUM
AA	10	POTHIA	PURNEA
GB	2	TAPAN	W.DINAJPUR
DB	5	RANAGHAT	NADIA
JM	2	JIAGANJ	MURSHIDABAD
NM	3	RANIBANDH	BANKURA
	1	PUNCHA	PURULIA .
MB	8	TAPAN	W.DINAJPUR
	1	? (Dihania?)	S.PARGANAS
NB	7	CHAKULIA	SINGHBHUM
SM	11	TAPAN	W.DINAJPUR
KG	2	? (Gopalpur?)	MALDA
	1	? (Nijaspur?)	MALDA
NB	2	PURULIA	PURULIA
	2	BAHARAGORA	SINGHBHUM
TOTAL	66		

The exact timing of the *aus* and *aman* paddy harvest varies according to the variety sown, the time of transplanting and, especially in the Purulia locality, rainfall. In the Purulia locality, the dates of the harvest are closely related to the topography of the land and its associated water retentive capacity. Thus the highest land for wet rice production (*baid* land) is harvested in Kartik (October-November), followed by the medium *kanali* land and finishing with *bahal* land (the lowest and most productive land) during Agrahayan (November-December). The earliest paddy harvest (sown directly on the highest *danga* land and entirely rainfed) takes place in Aswin (September-October) or exceptionally in Bhadra (August-September). For the migration of agricultural labourers, these differences are crucial. The small plots of land owned by prospective migrants tend to be the less productive *danga* and *baid* land. Thus labourers are in a position to cut, bind, thresh and store away their own paddy (or use it to repay parts of debts) before departure for Bardhaman. Employers in the Purulia locality would have started their cutting and binding by the beginning of the migration. Their objective is to finish carting the cut paddy to be stacked in their threshing yard. Threshing and storing of paddy is stretched out over the months of Pous and Magh (mid December to mid February). Bardhaman employers are known (by potential migrants in the Purulia locality) to search for labour at the Gobinda Nagar bus stand in Bankura town from 15th to 20th Agrahayan (corresponding approximately to the first few days of December).

In addition some migrant labourers participate in the sowing of potatoes, which follows the *aman* harvest and their harvesting following *boro* paddy transplanting (see Figure 1, Chapter 3). Bardhaman locality employers intending to cultivate *boro* paddy encourage migrant labourers to remain after the *aman* harvest to take part in the *boro* paddy transplanting in Magh (January-February). There is relatively little *boro* paddy cultivation in the Purulia locality. However, about forty *bigha* were transplanted in 1992 and no Pichanpara labourers migrated to Bardhaman at that time.

Boro paddy harvesting in the first half of the month of Jaishtha (at the end of May) is performed much faster than the *aman* harvest, partly because of the fear of rainstorms in the height of summer. In 1993 there was additional cause for hurry. Four days before the Panchayat elections were held on the 16th Jaishtha (30th May), migrant labourers in the Bardhaman locality were instructed by CPI(M) party cadres to return to their source villages to vote.

The sharpest peak in labour demand comes in Ashar-Sraban (mid June to mid August), when the timing of the monsoon rains dictate the optimum time for transplanting of *aman* paddy. High yielding varieties are particularly sensitive to variations in timing.

Five of the twelve sampled employers hiring migrant labour at least once between *aman* harvest 1992 and the *aman*

transplanting 1993 entered *phuron* arrangements in either the *boro* paddy harvest or at *aman* paddy transplanting. All five employers were from Dhanpur village. The rate of pay and the work required varied between individual employer households. *Phuron* rates for harvesting *boro* paddy ranged from Rs 150 per *bigha* with three cooked meals provided by the employer to Rs 200 per *bigha* with no food provided. The former arrangement required completion of all tasks from cutting paddy to storing the threshed paddy in the *morai*. The latter included just cutting, binding and threshing. For transplanting *aman* paddy workers were paid Rs 110 per *bigha*, shelter and cooking fuel by one employer and Rs 125 per *bigha* by another. In the former case the cash payment was the equivalent of Rs 42 per person per day (15 workers transplanted 40 *bigha* in 7 days). All the migrants employed via *phuron* arrangements were Muslim men from Nadia or Murshidabad districts¹⁰ recruited at Katwa, Krishnanagar or Kusumgram bus stands.

Migrants remunerated at a time rate by sampled employers in the same period received earnings ranging from Rs 14 plus 2 kg of rice (approximately equivalent to a total of Rs 26 at current prices) per person (the local floor rate brokered by the Kisan Sabha, which had been Rs 12 and 2 kg of rice during the 1991-92 fieldwork period) to Rs 25 plus three cooked meals (approximately equivalent to Rs 37 at current prices). Daily earnings above the locally brokered floor were reported by six

¹⁰Except for the migrant workers of one employer, who alleged that his employees were Hindu "refugees" from Bangladesh.

employers in Dhanpur but by none in Kadapur village. None were reported in the *boro* paddy transplanting season. Two employers reported paying migrant labourers Rs 20-22 in cash and three cooked meals during the *aman* harvest of 1992. Three paid Rs 20-25 with three cooked meals at the *aman* transplanting in 1993. Two paid Rs 16 per day and 2 kg of rice at the 1993 *boro* paddy harvest.

Labourers from the Purulia locality (except those from Santal para) tend to migrate little during the *aman* transplanting season. In 1993, no labourers migrated at all because the rain was exceptionally late. Everyone I spoke to during the revisit in October 1993 told the same story - the rains had not come until 25th Sraban (the second week of August; they are expected at the end of June). Labourers' own cultivation and that of their employers had been severely delayed. The *aman* transplanting is an unpopular time for migration even when the rains are timely in Purulia because of the likelihood of working in heavy rain and mud. Moreover, transplanting earnings in the Purulia locality are much higher than earnings for most other agricultural tasks.

Seasonal migrants are recruited via either:

- i) negotiation at bus stands, railway stations or busy crossroads (common points of recruitment are marked on Maps 4 and 5, above);
- ii) search by employers or their agents in source villages; or

iii) other channels, such as kinship networks, sub-contracting from other employers or return by migrants to known employers.

Recruitment channel i) was common both for migrants from the Purulia locality and employers seeking migrant labour in the Bardhaman locality. Of the 12 sampled employers who hired migrant labour in the aman harvest of 1991 and were reinterviewed in October 1993, 7 reported recruiting migrants at bus stands or busy cross roads in at least one of the four peak seasons between November 1992 and July 1993. The market places named were Katwa, Kusumgram and Krishnanagar. Labour gangs employed in the Bardhaman locality for the first time in the aman harvest 1991, without previous kinship or employment relations reported having been hired from one of those same market places or from Bardhaman town bus stand.

Market place recruitment is the most anonymous. Labourers, both gangs and individuals, arrive at the bus stand to seek employment. It is like a "mela" (AB, migrant from Purulia). Datta has described for Khulna district in Bangladesh how employers circulate among groups of labourers in the market place making offers of employment, while labourers wait to be approached (1991, p251). Just as Lenin observed in nineteenth century Russia, one employer from the Bardhaman locality reported deliberately waiting for the subsistence supplies of new arrivals to diminish before entering negotiations.

Most labourers from the Purulia locality travelled with a gang leader (*dol sardar*), usually from their own para or village. The *sardar* would conduct the negotiations on behalf of the rest of the gang. Rahman and Das' data from Noakhali District of Bangladesh illustrates how the *sardar* may have a whole pool of labourers corresponding to a particular neighbourhood. At any one time, only a proportion of these would accompany him (Rahman and Das, 1982, p9ff).

The *dol sardar*, if successful in negotiation, would usually receive all or part of the *asar khoroch* (the travelling expenses for the outward journey) from the employer. In most cases this was deducted from the final wage settlement in the destination village. During the bus journey(s) which followed, the *dol sardar* would earn "commission" by negotiating a group fare with the conductor and retaining the balance. There was no evidence that the *sardar* from the Purulia locality received any explicit bonus from the employer.

These travelling gangs often suffered the worst "costs" of migration. Most of those from the Purulia locality spent one or two nights in the Govinda Nagar bus stand at Bankura, their most usually frequented labour market place. This involved the risks and discomfort of sleeping rough and expenditure on *muri* and tea. A one night stay in November 1991 required Rs3 per person for these items.

A smaller number of labourers were recruited directly by employers or their agents coming to the source villages. In the aman harvest of 1991, of the six labour selling para in the Purulia locality, only one was visited by an employer from the east, seeking labour for his aman harvest. A member of another labourer household reported that in the 1990 aman cutting season, an employer's agent arrived with a tractor and trailer and collected up a gang of labourers willing to go to the place of work. Only one Bardhaman locality employer - a Muslim from Kadapur - went to recruit labourers from source villages. Other employers reported that direct recruitment was practised much more commonly in their fathers' (and grandfathers') time - women were not involved in labour recruitment.

During direct recruitment, Muslim and caste Hindu employers from Bardhaman and Hooghly districts would arrive in the Purulia locality and stay one or more nights with a labourer household, usually *adivasi* or 'untouchable' *jati*. In some cases the employer would be provided with all meals without charge, breaking caste rules that would have operated in his own village. In others, the employer would cook for himself but would sleep in the labourers' dwelling. This social interaction crossed caste and class barriers. Employers from the Bardhaman locality, who recruited in this fashion, were able to establish patron-client relations over long distances by continually returning to the same source village(s). Indeed at least one employer household no longer recruited

directly because a relationship of trust had been established with a Santal *dol* in Singhbhum district. A letter was now sufficient, specifying the dates and numbers of labourers required at the *aman* harvest. At other times of the year, the same employer recruited labourers from market places.

Similarly, in the Santal *para* in the Purulia locality there were two main *dol sardar*, who had maintained contact over twenty years with the same employers in Bardhaman and Hooghly districts. These *sardar* would send one member of their labour pool to their regular employer to ascertain numbers required in a particular season and exact dates. The employers occasionally made courtesy visits to the *para*. Wage negotiation was conducted by the *sardar* on behalf of the *dol*. One *sardar*, BM, boasted that he had negotiated the wage for the 1991 *aman* transplanting up to Rs15 plus 2 kg of hulled rice from the employer's offer of Rs14 and 2 kg.

Thus the second recruitment category is closely related to the third, whereby labourers are matched with employers through previous knowledge (or via kinship networks or other employers). Nine of the twelve employers reinterviewed in October 1993 had recruited migrants using one of these means at least once in the four preceeding peak seasons. Four employers reported subcontracting migrant labourers from other employers - one at *aman* harvest 1992 and at *aman* transplanting 1993, one at *aman* transplanting only, one at *boro* transplanting and one at the *boro* harvest. The migrants were

paid the daily rate originally negotiated with their main employer and continued to be provided with shelter by that employer. Only one sub-contracting employer reported paying the other employer a commission. At Rs30 for a total of 80 person days, this was modest.

Kinship networks were used by one employer, whose elder son's father-in-law, a cultivator in a village under the same *thana* (police station), supplied fourteen labourers for the 1993 *aman* transplanting season. In the 1991 *aman* harvest, one group of migrants in Dhanpur reported having initially worked for the employer's sister's household in another village. They had continued to work for both households alternately throughout the season. Labourers' kinship networks were commonly used. Two recently settled sampled labour selling households in the Bardhaman locality organised gangs of labour from their villages of origin on behalf of employers in their place of settlement. When the practice became established it could be done by letter. A number of households in Pichanpara in the Purulia locality also maintained links with kin in the intensively cultivated districts. Individuals from both Bhumij and Muslim families had settled in Bardhaman District and were able to provide information on employment possibilities. In these cases, the labourers would go individually or as households directly to the house of their kin.

Between the 1992 aman harvest and 1993 aman transplanting, five of the twelve sampled employers in Bardhaman reported the return of migrant labourers, who had worked for them previously and had either been specifically asked to come back (two cases) or had come unsolicited (three cases).

5.3.2 Explaining the Pattern and Flow of Seasonal Migration

i) Socially Embedded Migration:

In proposition i) at the end of section 5.2 I hypothesised that the pattern and flow of seasonal rural-rural migration in West Bengal were not determined by wage/earnings differentials alone, although these played an important role. The answers to the questions of who migrates, when and why were hypothesised to be embedded in the local agrarian structure and in caste, gender and spatial identities.

Earnings differentials between the two study localities were high, although they varied seasonally. Expected daily earnings from harvest season agricultural employment in the Purulia locality were much lower than in the Bardhaman locality. In the former area, payments for work hired under daily time rate arrangements were made either in cash or in kind. The modal range of payment in December 1991 was equivalent to 2.1 to 3 kilogrammes (approximately 10 to 15 Rupees) of hulled rice for a six hour working day net of breaks. In the Bardhaman locality during the same month, most

migrant labourers were remunerated in a mixture of cash (usually Rs12) and kind (usually 1.5 kg of hulled rice) as well as cooking fuel, oil, tobacco and vegetables each day (equivalent to 4.1 to 5 kg of hulled rice in total - approximately 20 to 25 Rupees) and were provided accommodation by the employer. They worked days of eight and nine hours duration net of breaks.

Given the discrepancy in hours worked, and employers' expectations that migrants complete more units of work than local labourers¹¹, the wage differentials between the two localities were harder to measure than the earnings differentials.

Agricultural labourers in the Purulia locality were aware of the much higher *potential* earnings in Bardhaman District. Indeed they expected continuous employment in the migration destination, which was not available in their own villages even in the peak seasons. Thus both the *income* and the *earnings* differentials between the two localities were high. Clearly this difference explains part of the decision to migrate.

However, potential migrants did not have complete information on outside earnings possibilities and any decision to migrate involved a degree of risk. Even if potential migrants in a

¹¹At transplanting, for example, while local labourers would be expected to transplant six to seven gonda of seedlings (each gonda being made up of 4 anti or bunches), migrant labourers transplanted 9-10 gonda.

hinterland area had developed regular seasonal employment relations with a specific employer or destination area, they did not necessarily know whether or where other, better terms and conditions existed. Indeed, in canal irrigated parts of Bardhaman District, employers themselves did not know the timing of *boro* paddy cultivation in advance. Moreover, in the case of migration via 'market places', the precise decision on which 'market place' to negotiate in, and which employer to hire out to once there, was often a group rather than an individual one, in which the *sardar* (gang leader) played an important role.

Further, although an offer of employment at high daily rates was very probable if a group of migrants presented itself at a busy labour 'market place' in the peak season, hours of work, living conditions and timeliness of final pay settlement varied. As we shall see, the probabilities of being paid for each day labour power was supplied (indeed of being paid at all) were not equal to unity. Thus although the large earnings differential explained part of the seasonal migration stream, the movement was not frictionless.

In Chapter 4, we presented a logistic regression analysis of factors affecting the odds that a particular work day in the Purulia locality would be in seasonal migration rather than another type of labour arrangement. It was shown that the wealth of labour selling households was negatively related to the odds, as was the number of dependents. Although the

majority of migrants from the Purulia locality in the peak season were women, more days were worked by men. The results also suggested that a labourer's age was negatively related to the likelihood of employment as a seasonal migrant rather than in local labour arrangements. In the Bardhaman locality, the odds of a seasonal migrant arrangement being used rather than another on a particular work day were found to be positively related to the wealth of the employer household, but negatively related to the number of workers in the employer household. If a hired labourer was female on a particular day, the likelihood that the arrangement was seasonal migrant increased, reflecting the divergent gender divisions of labour deployment by local and migrant labour selling households.

Thus we have already shown that seasonal migration is undertaken by relatively poor households, and especially those with few dependents. In the following paragraphs, using case study material mainly from the Purulia locality, we can take a closer look at who migrated in the Bengali year 1398 (1991-92).

Agrarian structure broadly defined as "the network of relations among the various groups of persons who draw a livelihood from the soil" (Daniel Thorner cited by J. Harriss, see Chapter 1 n1) includes the distribution of land between groups and individuals, the arrangements for hired labour and tenancy contracts of various kinds.

Our evidence suggests that the expected remuneration package (part of the arrangements for hired labour) in hinterland villages varies greatly between seasons (see Chapter 4). For example the daily piece rate arrangements available to women in the Purulia locality during the *aman* paddy transplanting between late June and early August (in the Bengali months of Ashar and Sraban) enabled them to earn, typically, the equivalent of 4.7 kg of hulled rice in a day, which was well within the range of modal daily time rate earnings in both seasons in the Bardhaman locality. This helps to explain the smaller numbers seeking work in Bardhaman and Hooghly Districts during the *aman* transplanting, than at harvest. The fact that some workers still did migrate during the 1991 *aman* transplanting season (though not in 1993) suggests that, although earnings for women transplanters are relatively high in the Purulia locality during the transplanting of *aman* paddy, the number of days of continuous employment is greater in the agriculturally dynamic areas to the east.

Employers in a neighbouring locality in Purulia District expressed their anger regarding the migration of "their" workers for *aman* transplanting work. In late June 1991, these employers (in Akashpur and Santipur) paid only 4 ser of paddy (1.7 kg hulled rice) per day for transplanting before a strike forced them to negotiate a rise to 4.5 ser paddy (1.9 kg hulled rice). The employers, mainly high caste Hindus (Kayastha) were forbidden by their own caste rules from manual labour even in their own fields. It was particularly

important to them that they did not lose "their" labour force at the technically crucial (and unpredictable) period of transplanting. The attempt of employers from Bardhaman district to employ transplanting labour for *aman* paddy from those *para* "obliged" by their history of settlement to give first option to Akashpur and Santipur employers, was met in 1991 with the threat of physical violence.

In contrast, employers in the Purulia study locality worked the land alongside hired labourers. Our evidence suggests that these employers competed among themselves for available labour, rather than uniting as a class as the employers of Akashpur and Santipur did. However, labourers' decisions not to migrate in large numbers during the *aman* transplanting season was also made out of an awareness of the potential loss of employment during the ensuing hungry season in Bhadra and Aswin (late August to early October). They would depend on the employers then for lean season employment and advances of paddy and/or cash to enable them to survive until the demand for labour again rose at the harvest. There is a degree of self interested mutuality here between employers and labourers from certain *para* in the locality, particularly Pichan *para*, who, unlike other labour selling *para*, hired out only to employers from one *para*, Ager *para*.

One gang of Muslim labourers from Malda District encountered in the Bardhaman locality explained that they did not come at harvest because they had access to harvest share contracts in

their own village. They were paid one sixth of the crop they harvested. However, during transplanting they usually sought work outside¹².

In such ways agrarian structure in the source and destination localities influences the flow and pattern of migration. The costs of not fulfilling obligations (implicit or explicit) to local employers, such as possible future refusal of emergency loans or hiring for weeding work in the lean season, would have to be taken into account. The more risk averse a labour household faced with such a choice, the less likely that it would deploy members to migrate. Moreover, the seasonally specific types of labour arrangements available in a source locality are taken into account by potential migrants. Further, as implied by our logistic regression analysis, the number of workers in a household together with the amount of land controlled, is a determinant of the migration decision. In the destination locality, where owners or tenants of relatively large land areas hired in gangs of migrant labourers, smaller operators were able to subcontract to augment their own and local hired labour, without investing in search costs or providing accommodation for migrants.

Migrants from the Purulia locality were either Santal, Bhumij, Bhuinya or Muslim. Caste Hindu households (Goala, Tamuli and

¹²More research is required into the relationship between season and locality specific remuneration systems and the pattern of migration into Bardhaman district from other parts of West Bengal and from Bihar. At present there is insufficient data on diverse labour arrangements in the source areas.

Brahmin) did not migrate. This division was identical to that between those who did and did not hire out labour in the locality. This status consideration dominates the economic position of the household, such that poor caste Hindus have severely restricted earnings possibilities. The four labour selling *jati* were divided between the residential clusters: Santal para (where all the Santal households lived), Kodallota (where only Bhumij lived), Mahaltar (where Bhumij lived amongst caste Hindu households), Namo para and Pichan para (mixed Bhumij and Muslim) and Bhuinyadi (where all the Bhuinya households lived) (see Map 3 in Chapter 4).

The migrants encountered in Bardhaman had arrived from a large number of source areas in groups organised around kinship, *jati* (and in some cases *para*), including, unlike the outmigrants from the Purulia locality, all female and all male groups, and individual men. *Jati* included Oraon, Santal and Mundi (all *adivasi*), Bhuinya and Muslim. None of the groups we met included members from more than one *jati*. None of them were caste Hindus.

The pattern of migration from the Purulia locality, like the pattern of employment in the locality generally, varied according to the labourer's *jati* (corresponding to some degree to *para* of residence). The most marked contrast was that between Santal and other *jati*. Santal migrant gangs are organised by a *sardari* system, involving labour leaders (or *sardar*) negotiating on behalf of members of their labour pools

(see 5.3.1). Two men, BM and ST, maintain regular relations with employers MK and PS respectively in the destination areas. When work is offered, the *sardar* return to Santal *para* (or send word) and recruit individual gang members of both sexes. This reflects the communitarian social organisation of the Santal *jati*, which contrasts with the household-based organisation of other *jati*. A strict division is maintained, however, between Murmu and Tudu (Santal clans)¹³. Once in the destination, a cook is appointed from among the group. *Sardar* BM usually appoints his daughter as gang cook. Her working day ends earlier than the others (at 3 or 4 pm) and she returns to the place of residence to prepare food. Another Santal from the Purulia locality has settled in Hooghly district and occasionally returns to Santal *para* to recruit labour. These *sardar* also recruit from other neighbouring Santal hamlets, although they do not recruit non Santals.

The other labour-selling *jati* do not have such a clear *sardari* system for migration. There are, nevertheless, acknowledged labour leaders, who develop reputations for leading migrant groups, or who have nurtured relations with particular employers. Employers regularly come to the house of RR in Bhuinyadi, for example, where they base themselves for the search. RR does not have long established relations with any employer to compare with those of BM and ST in Santal *para* - this was evinced by the non payment of some RR-recruited

¹³Hansda states that Santal surnames correspond to clan names (1983, p183).

labourers following their premature return during the unseasonal rains in Pous 1398 (December-January 1991-92).

Unlike Santals, Bhuinya migrants often travel in mixed gangs with Bhumij migrants. Bhumij workers from Kodallota also combine with others from Namo para and/or Mahaltar and travel to the bus stand and negotiate with employers, with whom they have no previous connection. For this purpose, they are brought together by a leader, either GS from Namo para or BS from Kodallota, who acts as negotiator. These groups may include members of the small number of Muslim households in Namo para.

The 1991 aman season migration from Pichan para divided into two groups. One large *dol* of 24 individuals (all Bhumij), travelled together to the bus stand at Bankura, led by KS. Seven families including children were included in the *dol*. These household and kin groups cooked on separate *chulha* in the destination. One reason given for this was that the kind allowance they received from their employer had to be distributed between earners and non earners (where kin groups included children). The complexity of dividing contributions to the cooking pot was thus avoided. The second *dol* was mixed Bhumij and Muslim.

In early February 1992, at the time of boro paddy transplanting, workers from Namo para, Santal para, Bhuinyadi and Kodallota returned to Bardhaman. No workers migrated from

Pichan para, which may be partly explained by the availability of transplanting work in Pukurgram on the 40 *bigha* of *boro* paddy. However, as will become clear when we examine the third proposition, the timing of migration by Pichan para workers is also related to their group obligation to provide labour for the employers of Ager para.

Women worked longer hours in migration because they retained responsibility for reproductive activities, especially food preparation and childcare. This is particularly true when migrant *dol* divide into component households or wider kin groups for food preparation. However, even when *dol* were more communally organised, women in mixed gender *dol* were responsible for food preparation, at the end of a working day.

Ideologies of gender and caste also interact to influence the migration decision. Thus while certain *jati*, particularly caste Hindus, exclude themselves from hiring out manual labour at all, others, such as the Bhumij and Bhuinya of the Purulia locality, develop a tradition of seasonal migration whereby women, other than widows, can only migrate if accompanied by their husbands or other male kin. Santal women, on the other hand, can migrate as individuals in all-Santal labour gangs.

The pattern of migration is also influenced by spatial identities. Locality and para with traditions of seasonal migration may increase its likelihood, independently of *jati*,

gender and agrarian structure¹⁴. The composition of migrant groups described above illustrated how *para* or neighbourhood is the organizing principle as opposed to *jati*. The timing of migration and return is also related to the dates of festivals in the source village. For example, Santal migrants from the Purulia locality only migrated after the annual *Bandhna purab* in mid November (26th Kartik - 1st Agrahayan) (cf. S.N. Chatterjee, 1991, p86). Bhumij and Bhuinya migrants made sure that they returned to the locality in time for the *Pous purab* in mid January, even if they planned to return immediately afterwards. This is the most important *mela* of the year in the wider countryside, taking place at points along the Sonajal river.

Party politics explains the divergence between the recruitment methods of employers in Dhanpur and Kadapur. In the former, the CPI(M) were weaker and thus unable to restrain employers from increasing wage offers above the locally brokered rate. Employers recruiting in a market place were not constrained in bidding upwards or in hiring migrant labourers via *phuron* arrangements. On the other hand, because of the local strength of the CPI(M) and its strong stance on standardizing wage rate and contractual form, employers from Kadapur were unable to bid wages up or to offer migrants *phuron* arrangements. Thus they resorted to direct recruitment from

¹⁴Kapadia illustrated the importance of loyalty to one's neighbourhood using ethnographic data from Tamil Nadu. She termed it "localisation of identity" (1993, p304).

source areas and/or kinship networks and/or previous knowledge when the market price of labour exceeded the brokered rate.

Thus our evidence suggests support for both parts of proposition i). Seasonal rural-rural migration in West Bengal, although clearly associated with high earnings and income differentials cannot be explained by such differentials alone. Individual and household migration decisions are embedded in the agrarian structure, ideologies of caste and gender, in spatial identities and in interactions between all these. Additionally, party politics influences employers' methods of migrant labour recruitment.

ii) Divergent Economic Motivations for Seasonal Migration:

In proposition ii) I hypothesised that, of those that migrate for seasonal agricultural employment - none of whom could be described as rich - , the poorest individuals were more likely than others to migrate out of need than in expectation of accumulation. In order to examine this proposition, uses of remittances by sampled migrants from the Purulia locality are analyzed in relation to the economic vulnerability of those households.

Most migrant labourers from the Purulia locality expected to return with a lump sum of cash and some kind "savings". They knew that they were likely to receive a kind amount for subsistence each working day and that there was a cash part of

the daily wage, which would be paid at the end of the season. Table 81 illustrates the uses made of "remittances" by migrant labourers on their return to the source locality.

Aggregate household remittances ranged from Rs234 and 9 kg of hulled rice to Rs900 and 20 kg of hulled rice. This included migrations of different lengths ranging from 3 to 5 weeks. There was also variation in the number of household workers migrating, and in daily daily earnings. Remittances were used for daily consumption, loan repayments, marriage expenses, new clothes (particularly for Pous *purab*) and the purchase of productive assets.

These expenditures indicate clear differences in need among sampled migrants. JS was recently widowed and left with two young children and a debt of Rs400 against which her late husband's land had been mortgaged. Rs150 was already owed in interest to the lender, a neighbour, fellow Bhumij (KS). KS has a successful cock-rearing business. JS migrated out of need as part of a mixed gender *dol* from Namo para. Her children accompanied her to the destination and the youngest was breastfed at the workplace. JS used her remittances to repay KS and release her mortgaged land.

BS, another Bhumij widow, previously worked on a long duration arrangement with SM, the owner of the rice husking mill in Pukurgram. She had been reliant on regular local employment to provide for her son and daughter. Now that her daughter

Table 81: The Uses of Remittances by Seasonal Migrants from the Purulia Locality in the Aman Harvest Aagrahayan-Pous 1398 (Nov-Jan 1991-92):

MIGRANT	AMOUNT	USE
BS and dghter	Rs450 20kg hulled rice	Daily consumption 1.5 months (previously in long duration contract); Rs100 repaying shopkeeper NM Medicine, doctor's fees
GS		Marriage expenses
KM	Rs400 10kg hulled rice	Cash contributed to the cost of 1 <i>bigha</i> of <i>baid</i> land bought for Rs900 from NB of a neighbouring village. Rice consumed.
JS	Rs325 10kg hulled rice	Repayment of mortgage loan to release 0.75 <i>bigha</i> land from lender of same <i>jati</i> and <i>para</i> . Rice consumed.
HA	Rs680	Repaid loans. No kind "savings" because two children also migrated
MR	Rs400 30kg hulled rice	Rs100 spent on clothes for <i>mela</i> ; remainder on daily consumption
AR	Rs234 9kg hulled rice	Clothes - 1 <i>lungi</i> , 1 <i>saree</i> , 3 <i>jama</i>
NR	NOT PAID	
SM	Rs345 12kg hulled rice	Clothes Rs100, loan repayment Rs150, daily consumption Rs100
SS	Rs900 20kg hulled rice	Payment to child-minder in camp, Rs40; Pous <i>mela</i> clothes <i>saree</i> , Rs200; <i>petticoat</i> , Rs15; <i>trousers</i> , Rs150; <i>gambling</i> Rs50; other, Rs50; <i>goat</i> , Rs150; <i>in-laws</i> , Rs30; <i>daughter</i> , Rs40
MS	Rs400	Daily consumption - no kind "savings" because daughter accompanied her

was approaching puberty, she calculated that together they would be able to survive long periods of scarce local employment possibilities by migrating seasonally. She left her regular employment and migrated with her worker daughter and dependent son for the *aman* transplanting in 1398 (1991). BS used her remittances for daily consumption, loan repayments and doctor's fees.

For the assetless and indebted the reason for migration was expressed by the rhetorical question of one sampled labourer speaking about prospects for livelihood in the Purulia locality: *ekhane ki khabo, ki?* (what will we eat if we stay here?).

GS migrated from Pichan para for the *boro* paddy harvest in the same year with his wife, mother, sister, brother-in-law and sister-in-law as part of a large *dol*, while his father and brother remained in the Purulia locality to tend the livestock. GS's wife's younger unmarried sister travelled with them as a child minder. Acting in coordination this extended family (which included a number of households) raised income specifically for a family marriage ceremony. This may have been a condition for their social reproduction, but could not be described as "'safety valve' migration".

Those such as SS and AR, who spent large proportions of household migration remittances on clothes for the Pous *purab*, were also involved in reproducing their social status and

identity. Any household, which could not purchase new clothes for the *purab* (particularly for the children) carried a sense of lost dignity. On the day before the 1398 *purab* (in January 1992), the head of one household approached me in desperation, asking me to buy one of his cocks so that he could provide new clothes for his two young children in time for the *mela*.

This evidence provides support for proposition ii) that motivations for seasonal migration by the poorest households based on the need for survival can be distinguished from seasonal migration by less poor households based on petty accumulation.

iii) Migrant Labour and the Relations Between Local Labourers and Employers in Source and Destination Areas:

Proposition iii) was based on the hypothesis that contrary to the arguments of Rudra (1982), migration did affect the relations between local labourers and local employers. Migration was hypothesised to increase the relative bargaining power of labourers in the source locality and that of employers with respect to local labourers in the destination locality. It was further hypothesised that these shifts were not necessarily the result of strategic behaviour by either employers or labourers acting as classes-in-themselves.

The Source Locality:

Non-migrant labourers in the source areas learn from migrant labourers of the rapidly growing earnings available in the east. ST, one of the *dol sardar* from Santal para, reported the cash part of daily earnings to have increased by fifty per cent in money terms between 1988 and 1991. Table 82 illustrates the new wage agreed at the *aman* transplanting each year in ST's destination village.

This knowledge puts source area employers on the defensive. It forces them to explain peak season earnings of less than half those reported by returning migrants from Bardhaman. They have only one cash crop and even this is highly weather dependent. The cultivators of Bardhaman and Hooghly districts can depend on their groundwater irrigation for at least two crops per year. How can "we" pay the kind of wages "you" received in Bardhaman and Hooghly, when our production is so risky? In this way, as Standing argued, migrants have been "agents of change in their villages" (1985, p10). Local employers' vulnerability in the neighbouring villages of Akashpur and Santipur was evinced by their threat to harm Bardhaman employers during the *aman* transplanting of 1991. This incident also illustrated the rivalry between source area and destination area employers, which was reflected in the contrasting attitudes of the Purulia and Bardhaman district authorities - both CPI(M) led - to seasonal migration out of and into the respective districts.

Table 82: Rates of Cash and Kind Payment for each Person Day Worked by Members of ST's Dol (from Santalpara in the Purulia Locality) 1988-91:

YEAR	CASH (RS)	KIND (HULLED RICE)
1988	10	1.5 kg
1989	12	1.5 kg
1990	13	1.5 kg
1991	15	1.5 kg

In the Purulia locality, the possibility of migration for seasonal employment for the *aman* transplanting and harvest increases the bargaining power of labourers because it overlaps with the peak periods of demand for agricultural labour. This may partly explain the relatively high daily earnings available at *aman* transplanting and the continued use of *berhun* loans (credit-labour interlocking with implicit interest, see Chapter 4) to oblige labourers to work at *aman* harvest.

The Destination Locality:

Our data does not suggest that the use of migrant labour necessarily creates a labour surplus in destination areas in the peak season, in contrast to the findings of Datta, who found the coexistence of seasonal migration with high unemployment among local labourers in Khulna District of Bangladesh and attributed it to a deliberate control strategy by employers (1991, pp268-269). In the study peak season, the thirty eight sampled individuals who hired out labour in the Bardhaman locality hired out on 834 working days, a mean of twenty two days per worker. Given that on five of the thirty days for which records were kept in the peak season, no work was done due to heavy rain, the sampled labourers were almost fully employed.

Nevertheless, migrant labourers are considered by employers to work harder and more diligently than local labourers. One

sampled employer alleged that in transplanting migrants uprooted plants from the edges of the nursery; locals did not. Moreover, according to the same employer, at harvest migrants paid to thresh will remain behind for winnowing and cleaning the threshing yard, whereas locals insist on finishing by 5pm regardless of the amount of work completed.

Another employer, GB, who retained five migrant workers from Purnea district for weeding and other interculture tasks during the 1993 lean season between *aman* transplanting and *aman* harvest, argued that the availability of local labourers could not be guaranteed even when employment was scarce. "They", especially "adivasi" had received vested land and/or IRDP loans and were setting up in agricultural and non-agricultural activities. GB also alleged that this accounted for the *adivasi* labourers' reluctance to enter *bandha* or *nagare* arrangements. Yet, in these months (mid-August to mid-October), local labourers frequently resorted to advances on harvest employment (and thus to *bandha* arrangements) in order to survive.

The presence of migrant labourers and the potential for greater numbers increased the power of employers to control the conditions under which local labourers were employed. Employers argued that because migrant labourers did not object to working longer days, having left domestic obligations behind in the source areas, they were more productive and less

trouble to manage than local labourers, who tended to be idle and to find excuses to leave work early.

At the same time local labourers were far from powerless. Migrants were not used to undercut the locally brokered daily earnings floor. Moreover, labourers' industrial action for higher daily rates was sanctioned and controlled by the Krishak Sabha (CPI(M) controlled peasant union). On the eve of the one day strike by local labourers in Agrahayan 1398 (November 1991), migrant labourers expressed their opposition rueing the inevitable loss of a day's wages as they knew they would not be permitted to work by the strikers (cf Rudra, 1982, p128). In Bardhaman district, where the CPI(M) has a strong and relatively solid support base, it is in the party's interests to accomodate local labourers, migrants and employers in order to present the "peasantry" as a single category, untouched by class conflict (Dwaipayan Bhattacharyya, 1993, esp. Chapters 3 and 4). In the decade immediately preceding the inception of the LFG in West Bengal in 1977, the CPI(M) were at the forefront of struggles between erstwhile zamindars and the rest of the rural population (see for example Chandra, 1975).

In the Bardhaman locality, where many 'local' labourers are first generation settlers, potential conflict between local and migrant labourers is further reduced by their common

ethnicity¹⁵. Many of the recently settled households recruit migrant labourers of the same *jati* from their villages of origin. All *adivasi* labour-selling households, recently settled as well as migrant, have access to higher earnings than indigenous Bagdi and Muslim households, which do not generally deploy women to paid employment.

Control of Migrants:

In southern Spain, while local labourers opposed landowners' use of outside labour because "it gravely impair[ed] their bargaining power" (Martinez-Alier, 1971, pp138-139), the employers, as in Bardhaman, preferred outside labourers because they were easier to control. Datta has argued that migrant labourers are easier than locals for employers to deal with because employers do not "have any social relations with the migrants and can treat them as they wish without jeopardising their own socio-political interests" (1991, pp268-9; see also Rudra, op. cit., p127).

Data gathered from migrant groups in Bardhaman and returned migrants in Purulia suggest that seasonal migrants in the study area are controlled through the provision of accommodation and payment in arrears. The former renders them beholden to the employer they were recruited by - only if it suits him would migrants find themselves working for another

¹⁵Cf Burawoy (1980, p159), who reports a similar masking of conflict between seasonal migrants and local labourers in California, where both groups are predominantly Mexican.

employer in the same village. They cannot shop around for better packages in that village because they depend on their recruiter for shelter.

Table 83 shows how arrears payment was used as a means of preventing migrants from leaving before the end of the season. During the aman harvest 1398 (1991), five days of unseasonal winter rain meant that no work could be done. Agricultural workers all over Bardhaman District and beyond sat and waited while employers watched their physical output declining. Many migrant labourers were not paid even subsistence during the waiting period. They were at the same time unable to leave because of the refusal of employers to pay arrears (cases 3,4,10, and 11 in Table 83). Other workers were forced to consume kind "savings" waiting for employers to pay their dues after the season was over (cases 1 and 2). However, the experiences of some migrants during the rain was to be paid a subsistence allowance (cases 5 and 6).

The experiences of workers from the Purulia locality migrating for the harvest of aman paddy in 1398 (1991) were mixed. For some, including NR, it was miserable, resulting in a financial loss (having paid the *khoro*ch (travel costs), NR was not paid for his work at all). It would seem inevitable that as local party structures are concerned to resolve local conflicts,

Table 83: The Control of Migrant Labourers Through Late and/or Withheld Payment

MIGRANT CASE NO.	DAYS OF NO PAY	NOTES
1	12	It is the end of the aman transplanting season in Bardhaman. They have waited 12 days since the end of their work and are living on the kind part of their earlier payment
2	3 +	As above
3	5	These migrants in Bardhaman during the aman harvest were unpaid during the unseasonal heavy rains, when they could not work between the 6th and the 10th of Pous. The employer also refused to pay arrears so that they could not leave
4	5	Left destination after five days of heavy rain, no work and employer refusing to pay; three returned after rain to resume work and collect arrears.
5		Received kind payment during rain in destination village together with all members of his dol. Quantity not clear
6	3	Received 1 kg hulled rice per day during the rain in the destination village
7	14	Left destination sick after 14 days; employer refused payment. GA returned to collect
8	5	Not paid during rain, but when arrears payment demanded after 5 days of rain, the employer paid and the whole dol left
9		Could not leave destination for Pous purab because the employer refused to make arrears payments owed
10	7	5 days no pay during rains; 2 days wait for arrears
11	7	as above

migrant labourers will be the least empowered, with no recourse to law¹⁶. Indeed migrants from Bihar districts such as Purnea, Singhbhum and Santal Parganas do not even have the experience of Panchayati Raj and strong CPI(M) presence in their source areas, which make some migrants from the Purulia locality expect a fair local judgement in the destination area over disputes with their temporary employers.

Thus, contrary to the view of Rudra, seasonal migration profoundly influences local labourer-employer relations, both in source and destination areas. The possibility of migration enhances the bargaining power of labourers in the source area. Employment of migrant labourers strengthens employers' control over local labourers in the destination area both by increasing labour supply and by segmenting the workforce along the lines both of area of origin and of ethnicity. The same employers control seasonal migrants by, among other things, insisting on arrears payment of wages.

5.4 CONCLUSION

Seasonal migration for agricultural employment in Bardhaman and Hugli districts of West Bengal is a major source of livelihood for poor households from the Purulia locality and elsewhere, especially from districts on either side of the

¹⁶Also the fate of seasonal migrants for agricultural labour in California (see Burawoy, op. cit.). Burawoy describes the simultaneous vulnerability of both local and migrant agricultural workers in the face of organised employers with powerful lobbying capability in legislative bodies at both the state and federal levels.

Bihar-West Bengal border. The quantity of labour demanded in Bardhaman and Hugli districts for transplanting and harvesting *aman* and *boro* paddy increased rapidly in the second half of the 1980s. In the study locality in Bardhaman district there has been a seasonal shortage of local labourers and an associated influx of seasonal migrants. The explanation of migrant labour arrangements in both the study localities thus falls within the audit of this thesis.

Data presented in this chapter suggest that the seasonal migration of agricultural labour between the two areas of which the study localities are to some extent representative is associated with a high differential in daily earnings and a higher differential in actual seasonal income. However, this does not explain who migrates, when or why. In order to answer these questions it is necessary to examine (locality- and season-specific) source area labour arrangements and other aspects of agrarian structure, such as, for example, the precommitment of particular groups of labourers to the cultivation requirements of certain employers. Further, the age and gender composition of migrant groups varies according to *jati* and to the spatial identity of the labourer(s). Party politics in the destination area also affects employers' methods of recruitment.

Santal migrants from the Purulia locality, for example, travelled in single *jati*, mixed gender *dol*, usually comprising of one or two members of several households. This was a

direct result of their tendency to communitarian social organisation, which is not shared by other *jati*. In both localities, Santal *jati* households had formed relatively successful community mechanisms for coping with seasonal shortage. In the Purulia locality, this enabled Santal households to avoid *berhun* loans in the lean season, leaving them more room for manoeuvre in household labour deployment decisions. At the same time there is some evidence to suggest that employers of migrant labourers are willing to pay a premium on Santal labour, which is perceived as highly productive (Statesman, January 15th 1992). Indeed labourers of Santal *jati* were paid more than those of other *jati* migrating from the Purulia locality to Bardhaman and Hooghly Districts for the *aman* harvest of 1398 (1991).

The data further suggest that among seasonal migrants from the Purulia locality there are divergent motivations. The poorest individuals and households migrate out of need - for example to satisfy consumption requirements or to repay debts. Others, including households with larger numbers of workers, migrate in the expectation that the additional income will enable them to make productive and/or social investments.

Most importantly, perhaps, my evidence casts doubt on the argument of Rudra (1982) that seasonal migration has little or no effect on local labourer-employer relations. The possibility of alternative employment and higher daily earnings increases the bargaining power of source locality

labourers, although employers use historical obligations (Pichan para to Ager para) and tied loans (*berhun*) to guarantee sufficient labour supply. In the destination areas, the employment of migrants has the effect of restricting the bargaining power of local labourers in relation to employers both by increasing labour supply and by segmentation of the labour force on the basis of *jati* and place of origin.

The segmentation of workforces via the employment of seasonal migrants from diverse sources need not necessarily be deliberate as Standing has claimed (citing Breman, 1979, pp176-7 (Standing, 1985, p24)). Table 80 indicated the range of districts of origin of migrants in the Bardhaman locality in *aman* harvest 1991. The employer's kin I met at Bardhaman bus stand deciding their negotiating position before approaching groups of migrants arriving on buses from hinterland areas, had chosen that 'market place' because it had fitted with their return journey from visiting a distant relative. Gangs of labourers were not approached as part of a grand plan by employers from the Bardhaman locality to diversify sources and thus preempt collective action. Indeed, factionalism among employers, often manifest in party political differences, creates obstacles to their combining even in their class self interest. Yet, at the same time, employers were able to use migrants' diverse areas of origin to their advantage. Social contact between migrant *dol* (and, except where recent settlers had been used as recruiting agents, between migrants and locals) in the Bardhaman locality

was minimal. This is an example of Harvey's dictum that, while the choice of whether to migrate lies with the worker, capital can use any worker's choice to its advantage because the worker has no choice but to sell manual labour or starve (1982, p385).

CHAPTER SIX: LABOUR ARRANGEMENTS INSIDE THE HOUSEHOLD - UNWAGED REPRODUCTIVE AND PRODUCTIVE WORK

6.1 INTRODUCTION

So far in this thesis the discussion has been limited to institutional arrangements for hired labour. Yet the deployment of labour power to unwaged productive and reproductive activities forms an essential part of the context in which labour-hiring arrangements can be understood and evaluated. This chapter sheds more light on the puzzle of why diverse hired labour arrangements coexist, by analysing the logic behind the deployment of household labour to both waged and unwaged activities.

Formal estimations of labour supply based on regional or national data collected in large scale surveys (see eg P. Bardhan, 1979b, 1984; Rosenzweig, 1980, 1984) ignore the process of labour allocation within the household between unwaged work and paid employment (Ryan and Ghodake, 1984, p183). The processes of production and reproduction are interrelated. The reproduction of the labour power of the household itself requires labour power and the fruits of productive labour. As Jeffery and Jeffery argue, while "changes in labour relationships *inside* the family respond to changes in labour relationships outside it and vice versa", research on the relation between the two has barely begun (1993, pp110-111).

In the next section, I begin by critically summarizing three divergent approaches to explaining the deployment of labour power inside the household. In the third and fourth sections, an analysis is presented of the paid and unwaged activities engaged in by individuals from sampled labour-selling households. The final section summarises the main findings and briefly discusses their consequences for understanding 'choices' of labour arrangements in the study localities.

6.2 THEORIES OF HOUSEHOLD LABOUR DEPLOYMENT

Traditional neo-classical economics treated labour supply decisions as a branch of consumption theory. Individuals consumed and firms produced. Whenever individuals supplied labour to profit-maximising firms in order to maximise their 'utility', they were choosing to 'consume' income over 'leisure'. The key parameter in this decision was the wage rate. Preferences (between income and leisure) were given and mapped as a set of indifference curves representing progressively higher levels of utility, the greater their distance from the origin. The slope of each indifference curve was given by the marginal rate of substitution between income and 'leisure'. Utility was maximised subject to the constraint imposed by the 'budget line', the slope of which was equal to the ratio of the 'price' of 'leisure' (the opportunity cost of not selling labour, ie the wage rate) to the 'price' of income (ie leisure foregone). An increase in the wage rate lead to an increase in the absolute value of the

slope of the budget line. Two simultaneous effects on labour supply followed. First, extra hours would be worked because of the increase in the opportunity cost of leisure (the substitution effect); second, fewer hours would be worked because the income from each hour had increased (the income effect). The total effect depended on whether the substitution effect dominated the income effect or vice versa. A labour supply curve was conceptually derived by considering consecutive changes in the quantities of labour supplied following changes in the wage rate. As substitution effects were assumed to outweigh income effects, the individual's labour supply curve was conceived of as upward sloping. The 'market' supply curve was constructed from the aggregation of individual labour supply curves.

The analyses of large scale survey data on employment and unemployment for West Bengal by P. Bardhan (1979b, 1984) and for all India by Rosenzweig (1980, 1984) appear to confirm that, in rural India, labour supply is responsive to wages in the expected positive direction but that patterns of labour supply cannot be fully explained by wage movements. From his analysis of National Sample Survey data collected during 1972-73 from 4,900 rural households (8,500 individual workers from 500 sampled villages) in West Bengal, Bardhan concluded that "labour supply... [was] primarily determined by the social and demographic conditions of the labour supplying household and its asset situation" (1984, p258). For all households classified as landless labourers or small cultivators, the

number of adult workers and the number of dependents per earner were found to be positively related to hiring out labour, while landholding size was negatively related. Women's labour supply was positively associated with low caste households and with widowed or divorced women, but negatively related to the number of dependents and the number of men in the household. In addition to social and demographic factors and household assets, women's labour supply was found to be positively associated with the district agricultural development index and the busy agricultural season, and negatively associated with the village unemployment rate and the "family standard of living" (1979, p81). Only very brief explanations, if any, were given for these findings. The allocation of women to "household work" appeared to be taken for granted in the explanation that the supply of women for hired labour was negatively related to the number of dependents "(necessitating more household work)" (1979, p80). Nor did Bardhan find any need to delve further into the relationship between female labour supply and the busy agricultural season than to state that "transplantation and threshing [were] quite often an exclusively female job in this area" (loc. cit.). Furthermore, no evidence was provided to support the assertion that the positive association between female labour supply and the district agricultural development index was due to "the liberating effects of attendant commercialisation" (loc. cit.). Indeed it has been argued in other geographical contexts that commercialisation, rather than liberating female labour supply, reinforces the gender

division of labour, increasing women's role in food (as opposed to cash crop) production and "domestic work", and devaluing the latter and with it women's status and power within the household (Lockwood, 1992, pp10-11; see also Mackintosh, 1989, pp162-163)¹.

Although P. Bardhan demonstrated empirically the importance of taking account of household size and structure, assets, caste and other factors, he did not attempt to explain the bases on which the allocation of individuals to different activities was founded. In order to explain why particular individuals in a household were deployed to unwaged as well as paid activities in the study areas, it is first necessary to critically summarise three dominant, though divergent, theoretical approaches.

6.2.1 New Home Economics

The 'New Home Economics' (NHE) extended to the household the traditional neo-classical model of individual labour supply (Becker, 1965). Households were now seen as both consumers and producers, utility being derived from the consumption of home produced goods, which involved combinations of home time and goods purchased in the market (op. cit., p516). Becker assumed that household heads acted as altruists, ensuring equity in consumption between individual members (1981, p173).

¹White found industrialization to be associated with a rigidifying of the gender division of labour in a comparison of two villages in West Java (1984, p25).

Thus household labour allocation behaviour was theorised 'as if' the household was an individual, who aimed to minimise the cost of production of final goods. These costs were composed of the sum of the prices of any market goods used as inputs and the cost of home time (earnings foregone). Choices would be made between money intensive and home time intensive goods according to the prices of market inputs in relation to the wage. A wage increase relative to the prices of market goods would lead to the substitution in consumption of money intensive for home time intensive goods. However, due to the income effect it is uncertain whether time made available by the decrease in home production would be spent in paid work or at leisure (Ellis, 1988, p127).

The concept of a simultaneously producing and consuming household is especially appropriate in peasant societies, where the household (or family) is the unit of production often both for the market and for its own subsistence². Low's model, constructed specifically for application in southern African conditions but based on the principles of neo-classical New Home Economics, provides a logic for the deployment of household members to specific activities.

Households engage in production of subsistence and (in some cases) cash crops. There is a labour market, on which household members command differential wages corresponding to

²See Ellis (1988, Chapter 7) for a review of the Barnum and Squire (1979) and Low (1986) models.

the sector and location of employment and the gender of the worker. In allocating labour between subsistence crop production and wage work, households work on the principle of the comparative advantage of their members. In a household with two working members, the one commanding the higher wage hires out labour as long as the difference between his/her wage and the other's potential wage exceeds the difference between their productivities in subsistence crop production. The second person produces subsistence crops unless and until their potential wage exceeds the opportunity cost of purchasing (instead of producing) the crop, under which circumstances the second person too hires out labour (Low, 1986, pp36-37).

However, the model is not restricted to subsistence crop production nor to two member households. While the allocation of labour to the production of cash crops may "resemble wage employment" in that it generates income..."in terms of [its] returns to the labour input of household members, [it] will be more akin to crop production for own consumption" (pp40-41). However, the decision parameters for allocating labour into subsistence and cash crop production are distinguished. The decision to allocate labour to subsistence crop production is based on a comparison of the cost of purchasing that part of subsistence requirements, which is not grown, with the "value of labour time needed to produce the balance". The decision to allocate labour to cash crop production involves the contrast of the value of the marketed surplus with the value

of labour time used to produce it (p41). Clearly, as Low points out, any such calculations would have to include a significant risk factor given the unpredictability of yields and prices. He argues that because of this and the relative certainty of the wage in mining and other work a risk averse household diversifies sources of income including the allocation of "its best-suited member" to an urban occupation away from the fluctuations of agricultural production (Stark and Levhari, 1982, p192; cited by Low, op. cit., p42).

Like NHE generally, Low's model relies on the assumption that households can be treated as individuals maximising a single utility function. However, Becker's famous assumption that household economic decisions are made by an altruistic household head implies different rules of behaviour between individuals within households than between households (Folbre, 1986). While outside, in the marketplace, individuals strive to maximise their self interest, intrahousehold relationships are not competitive, let alone adversarial. As Ellis has shown, the comparative advantage rationale of labour allocation within the household according to NHE is inconsistent with this very strong assumption. Ellis cites Rosenzweig and Schultz's explanation (1982) of high female child mortality rates in terms of the lower long term economic contribution which females were likely to make. The implication is that the unequal treatment of female children be built into the household utility function (1988, p177)!

A second problem with Low's comparative advantage model, especially when applied to peasant households, is its reliance on the existence of valorisable livelihood alternatives. Decisions made according to differences in opportunity costs, require knowledge of those costs - an activity shadow price³. Yet some activities are prior necessities. Poor labour-selling households do not normally have the resources to hire in daily reproductive labour - the activities involved in reproducing the labour power of individuals within a household can only be performed by unwaged labour. Other activities, although valorisable in the sense that there are identifiable alternatives with prices (usually wages) attached, may be selected by criteria other than maximising the short term economic benefit to the household. For example, productive activities such as own cultivation yield lumpy returns. The NHE model would have to build in temporal preferences for completeness. Further, labour-selling households may be implicitly cooperating to maintain a wage floor (see Osmani, 1990) using non-wage livelihood activities with relatively low returns to avoid being forced to hire out at below that floor.

Lockwood (1992) has carefully and critically examined the work of Collier and others (Appleton, 1991; Appleton et al, 1991; Collier, 1989), who blame the gender stickiness of labour (the

³Based on analysis of data from ten ICRISAT villages, Skoufias has argued that the opportunity cost of time is an important determinant of the allocation of household labour between "market, home, leisure and schooling activities". Yet he admits in the same section that the opportunity cost of "nonmarket time" is determined by the marginal productivity of time in unwaged activities and that this was not explicitly measured (1993, pp302-303; see also Skoufias, 1994, pp352-3).

lack of movement into 'tradeables' sectors by rural women)⁴ for the failure of structural adjustment policies in Africa to bring about efficient resource allocation (Lockwood, p5). Whereas Low implied an analogy with international trade theory by the use of the principle of comparative advantage, Collier and associates make explicit use of the same principle. Lockwood argues that these authors mystify the source of gender identity - placing it outside the model as part of the natural world (p10). Lockwood traces the economic history of gendered labour allocation by rural African domestic groups describing how the drawing of men into plantation and mining sectors since the nineteenth century led to the feminization of food supply (originally contributed to by both men and women). As cash crop production grew, "domestic tasks" got a new function - underwriting cheaper wage labour and export crops. "Domestic production" became both gender-specific and less valued. Because men had greater control of land, labour and capital in the pre-colonial era, they drew women into cash crop production as unwaged labourers, often through the marriage relation. Lockwood argues that it was thus an earlier restructuring process, which led to the present gender stickiness of labour, and that contemporary structural adjustment is likely to deepen gender immobility.

⁴'Tradeables' refer here to commodities which could be bought or sold on the world market. Collier identifies the main sources of differential constraints on economic activity for men and women as: i) discrimination in labour and credit markets; ii) gender-specific role models in production; iii) women's unequal burden of work inside the household; and iv) biological reproduction. Because of these constraints, women participate more in production of non-tradeables than tradeables (Collier, 1989; cited by Lockwood, op. cit., pp6-7).

New Home Economics theories of household labour deployment predict the deployment of individual household members to different activities and implicitly to different hired labour arrangements according to the principle of comparative advantage. The theories are found to be untestable because they require proxy prices for unvalorisable activities and because of the differential lags in returns to unwaged productive enterprise. Moreover, they defy reality by relying on the assumption of a single benign decision-maker and treat gender identity as exogenous, rather than socially constructed.

6.2.2 Bargaining Models

Household resource allocation has also been theorised in a bargaining framework (see references in Hart, 1992b, and Sen, 1990). Individuals in the household are assumed to be self-interested and to seek to maximise their own utility. Each individual has a fall-back position, which is their level of utility in the event of no collusion between household members. If in a two person household there are allocations which raise both individuals' utility above their fall-back positions, bargaining takes place and collusive 'solutions' which do not raise the utility of one or other member above the fall-back position are discarded. The final outcome (Nash bargaining solution)⁵ is determined in adversity, the greater

⁵The Nash bargaining solution is that outcome which maximizes "the product of the two persons' welfare gains compared to the fall-back position" (Hart, 1992b, p115). Sen suggests that Nash's solution was not

benefit going to the individual with greater bargaining power, itself defined by the two fall-back positions.

According to Sen the bargaining models are flawed in that they take account only of individual interests and assume that individuals clearly and unambiguously perceive those interests. Other influences on the division of labour between genders, for example, include perceptions of 'legitimacy' and 'desert' (1990, p131).

Sen argues that one of the main drawbacks of bargaining models of the household is the identification of the problem: "the rules governing intra-household distribution are made to appear natural and legitimate even though they often embody spectacular inequalities" (Hart, op. cit., p120). However, these rules are supported by "gendered perceptions", which are not fixed. The capacity to "challenge and redefine rules" is a major component of individual bargaining power not captured in these models (Hart, loc. cit.).

Bargaining models of household resource allocation improve on NHE models by allowing for conflicts of interest and for the asymmetrical distribution of bargaining power between individuals inside the household. According to the former models, the deployment of household labour to different types of work and labour arrangement is crucially determined by the

intended as a predictive exercise but as a normative statement (1990, p133, n13).

utility function of the individual with the greatest bargaining power. Empirical verification of these models is hindered by the need to identify possibly ambiguous fall-back positions.

6.2.3 Household Relations Approaches

Inequalities between genders and generations within the household have been ascribed by feminist-inspired literature to the institution of patriarchy. For radical feminists, power differences between the genders are prior to class and other social divisions in explaining inequality (see Folbre, 1994, p50, n80) . Patriarchy is thus ahistorical such that men, who control women's sexuality (among other things), determine the division of labour in the household. Socialist feminists link patriarchy to capitalism (eg Walby, 1986, p243). In capitalist societies, patriarchal control of women's labour means that women are responsible for the work necessary to reproduce wage labour at no cost to capitalist employers. Women's unwaged work thus subsidises capitalist accumulation (Mies et al, 1987, p6). The identification of daily reproductive work as 'non-work' is relied on by capitalists to keep wage levels down (op. cit., p7).

As an explanation for the allocation of household labour this approach is inadequate as it fails to differentiate between women in the household or to identify how the power relations embedded in gender ideologies are refracted through other axes

of social differentiation between households, such as class, caste and ethnicity. Gender relations cannot be assumed to be patriarchal (Nesmith, 1990) even though patriarchy is most common. Moreover, patriarchal and capitalist relations should not automatically be identified with each other. As Clark has argued, patriarchy has existed without capitalism and capitalism could theoretically exist without patriarchy (1993, p120). There is no universal meaning to the sociological category 'woman', and, though this '"does not mean that women are not oppressed by patriarchal structures...it does mean that the nature and consequences of those structures have to be specified in each instance and not assumed"' (Nesmith, op. cit., p29). Similarly K. Bardhan, while agreeing that "[t]he social construction of the differences in women's work...is functional to, and indeed an integral part of, exploitation in basically capitalist production relations", argues that "the oppression of women" is not "unique, unparalleled, [or] undifferentiated" (1993, p151)⁶.

In a study of women's work in two villages in West Bengal, Mayoux caricatures three distinct caste-based ideologies of gender relations to help explain why women of different *jati* encountered divergent expectations of their behaviour. Under what Mayoux terms the "traditional Brahminical model" based on laws laid down in the Dharmasastra, women were never to be

⁶Deere's discussion of the reproduction of labour power reinforces this point - that gender relations are historically and spatially contingent. Aspects of the social reproduction of labour power can be purchased or carried out by the producers themselves (1990, pp15-16).

independent. Their dependence successively on father, husband and son(s) was enforced by limited rights to property, norms of obedience to and worship of their husband and constraints on their sexuality and on movement outside the house. Although the "lower caste model" is also drawn from scripture, it placed fewer restrictions on women's movements outside the home and women were thus in a "better position to manipulate the system". The "Santal model" restricts women's movements outside the home even less, involves little assertion of male authority and condones pre-marital sexual relations for both men and women (1982, pp78-93).

It is apparent from the earlier chapters of this thesis too that in the study localities, the prevailing gender ideologies at the level of community (the locally prevalent ideas of what women and men should be and do) varied according to class, caste and ethnicity. Women from relatively wealthy employer households were expected not to work outside the compound (cf. K. Bardhan, 1984, p206)⁷. Among labour-selling households in the Bardhaman locality, those of the Bagdi jati did not condone the deployment of women to manual labour outside the household, especially on hire. It was shown that some women, particularly poor women and widows, defied this, but commanded only low wages. Santal women, on the other hand, had access

⁷Nesmith argues that the observation of *purdah* by the women of a wealthy household, signifies among other things that household's wealth - it can afford to hire in labour for work outside the homestead, which would otherwise have been performed by women (op. cit., p32).

to men's wages and their hiring out was condoned by Santal society.

Gender ideologies also operate at the household level. The marxist feminist approach avoided explanation of inequalities of power between women or between men within a household on the bases of age or kinship relations. Older women (men) may have greater power than younger women (men), daughters more power than daughters-in-law, etc. An individual's position in the household power structure is likely to shift over the life-cycle. "Shifting definitions of self-interest and changing possibilities for pursuing group interest create a strategic environment far more complex than any simple duality based on class and gender alone" (Folbre, op. cit., p38).

Indeed male labourers in agrarian societies may also be oppressed, not only by their employers but also by the expectations brought about by particular gender ideologies. Hart shows how the expectation that men in the Muda region of Malaysia should provide livelihood for their families enfeebled men in their individual dealings with employer-patrons, while women, organised in gangs and not part of the formal political system, were able to contest labour arrangements more forcefully (1991). Further, men too are part of age and kinship hierarchies within households, which manifest in differences in status, power and labour deployment.

Moreover, White has argued that, in rural Bangladesh, women, especially poor women, identify their own well-being with that of their family, even when that entails inequalities of power (1992, p120). There, women, who lack material resources due to patriarchal inheritance systems and are relatively excluded from hiring out labour, see *relationships* as their most crucial resource (ibid.). Jeffery and Jeffery attempt to explain the lack of solidarity between married women in a village in Uttar Pradesh in terms of the diverse and competing interests of whole households, in addition to the ideologies surrounding 'women's work' and caste and ethnic barriers. Although young married women living in their affinal households have powerlessness in common, they do not mobilise collectively with women from other households, but tend rather to look forward to increased authority within the household at later stages in the life-cycle. They see their individual security as correlated to the well-being of the household (1993, p110).

Members of poor households are more likely to coordinate activities than members of richer ones (Hart, 1986a; Fafchamps, 1992). The rationale behind this statement is taken from bargaining theory. The breakdown position of non-cooperation for poor households is likely to involve significant deterioration in livelihoods. Poor women are particularly likely to identify their own well being with that

of the household to which they belong (White, 1992, p141)⁸. For poor women in rural Bangladesh, assetless and largely excluded from hiring out labour, the breakdown of household coordination would lead to especially dire consequences.

Thus power relations within the household influence the deployment of labour between tasks, and perpetuate prevailing ideologies, which circumscribe the types of activities particular individuals engage in. There is no single ideology in a locality, but many competing ones. At the same time, poor households coordinate activities for survival, acting together to reduce risk and earn a livelihood.

6.2.4 A Framework for Analysis

We have argued that the logic of deployment of individual labour power to different activities and hired labour arrangements by a household is not explicable either by economic comparative advantage, or by bargaining theory, or by a reductionist patriarchal model. Theories based on economic comparative advantage are untestable because they rely on the valorization of returns to certain unvalorizable activities, including activities with lagged returns. They are also based on the assumption of an altruistic household head, which takes

⁸Given these reports in the literature, it would appear paradoxical that poor households are often found to be nuclear rather than joint, suggesting either a lack of solidarity or a lack of control depending on one's model of the household (see references in B. Harriss, 1993a, p393). Harriss also cites studies which suggest that among the poor, those with the highest dependent:worker ratios are the poorest. Pollack has shown that family based organisation of production has the potential both to add to and reduce transaction costs (1985).

no account of relations of conflict within households. Bargaining models may be useful heuristically but may be equally impossible to verify empirically given the need to identify fall-back positions, which are neither fixed nor unambiguous. They also rely too much on the assumption that action is undertaken out of individual self-interest. The radical feminist version of the concept of patriarchy places prime importance on conflicts between the genders and neglects both wealth differences and, along with the socialist feminist version, the existence of multiple identities and ideologies.

Here we argue, along with Hart, that the members of poor households are more likely than others to coordinate economic activities (although this does not preclude asymmetrical power relations and major conflicts of interest within households). The concept of household labour deployment is used to refer to the participation of individuals in activities and labour arrangements according to a logic of maintaining or improving household well-being⁹. This subsection sets out the framework within which that deployment will be described and analysed.

⁹Decisions are not necessarily taken collectively. For example, the allocation of gendered tasks between individuals of the same gender may be decided by those individuals alone. However, all individuals identify their own well-being with that of the household. No attempt was made to collect systematic data on decision-making. Questions on decision-making posed in conventional survey style are likely to be answered according to "socially-acceptable norms about who ought to control decisions" rather than actual practice (White, 1984, p25, author's emphasis). The labour and time-intensive methods used by White as an alternative were only begun after six months continuous residence in the Indonesian village under study. They were not replicable in the present study, where during nine months fieldwork in two separate localities the main priority was to facilitate the completion of the daily employment records.

In section 6.2, I reported P. Bardhan's conclusions that asset distribution and social and demographic factors were integral to explanations of the supply of labour to paid work. In earlier chapters it was concluded that hired labour arrangements in the study localities were embedded in the structure of land holdings and ideologies of caste and gender. Moreover, household size and structure were shown to significantly affect deployment of labourers to specific types of arrangement. The review of recent literature on south Asian gender relations suggests that the deployment of labour to unwaged as well as waged work is embedded in the same structural variables. Kothari's framework (1991), which is summarised in the following two paragraphs, explores the relations between structural variables on the one hand, and the deployment of individuals to particular types of work on the other.

Kothari, who focuses on "women's work" rather than gender relations, effectively nests her analysis, beginning by dividing up types of work into agricultural and domestic, paid and unpaid. Agricultural work refers to the production of crops, including processing, inside the homestead. Domestic work, on the other hand, corresponds to the activities necessary for the daily and generational reproduction of the household.

In her research in South Gujarat, Kothari systematises a description of these four categories of work. Women's work is

then described separately for each of the two main castes, the Halpatis and the Patidars. Each caste is divided according to class, and each class according to household structure and organisation. The latter refer to the number of members in the household, the number of women workers, the gender division of labour and the structure of any female hierarchy. The analysis is further subdivided according to women's lifecycle stage.

The deployment of women to domestic and agricultural, paid and unpaid work is thereby shown to depend on several interrelated variables, including caste, class and household structure. For example, a gender division of labour operates such that domestic work is done almost entirely by women. If the number of women workers in a household is low, say one, the workload of that woman is particularly high as male members tend not to absorb the effects of her life cycle changes, such as pregnancy or ageing. The gender division of labour itself is likely to vary between households resident in a female member's natal village and those resident in a male member's natal village. In the former the woman concerned would be expected to have greater control over decisions including labour deployment because of her status as a daughter rather than a daughter-in-law of the village.

Sections 6.2.1-6.2.3 showed that general theories of household labour deployment were seriously flawed. In the analysis that follows, we draw on Kothari's nested social differentiation of

individuals and households, which enables us to analyze the deployment of certain members to particular activities via a household relations perspective, without beginning with a universal theory. However, the present attempt differs from Kothari's in four important ways. First, this is a study of both men's and women's work, whereas hers concentrated on women's work alone. Secondly, as the primary aim of this chapter is to analyze the logic behind the deployment of labour between waged and unwaged work, households which did not hire out labour are excluded¹⁰. Thirdly, our division of types of work into reproductive and productive (paid and unwaged) differs from hers (domestic paid and unpaid and agricultural paid and unpaid) because we want to emphasise the implications of ideology based deployment to reproductive work for the deployment of labour to productive activities (waged as well as unwaged). Fourthly, as in the preceding chapters, contrasts between the two study localities and two agricultural seasons are highlighted.

¹⁰Mencher has shown that the 'domestic' workload is greater in richer than poorer households. For example, clothes washing requires more effort when there are more clothes to wash (1993, p115). However, although the wealth, *jati*, and number of adult workers of employer households were found to have significant effects on the odds of days being hired in via particular labour arrangements in the logistic regression analysis of chapters three and four, the effect of household characteristics on the division of work within employer households and the types of labour arrangement hired in are not explored further here. The exclusion is pragmatic - the time intensity of the method necessitated a small sample size and the inclusion of sufficient variation in types of labour-selling households in the activity analysis (described below) according to wealth, *jati* and household size and structure was given priority. It may be recalled that the range of asset-holdings among labour-selling households was relatively wide (Rs 0-80,000 in the Bardhaman locality and Rs 0-100,000 in the Purulia locality).

The separation of work into categories of productive and reproductive is necessary in order to examine our two main hypotheses:

- i) that the logic of deployment of individual labour power within households is embedded in relations between the genders and generations, in expected kinship roles, and in expected behaviour at the community level associated with wealth and *jati*; and
- ii) that the supply of hired labour in the study villages - including the supply to particular types of arrangement - is contingent (at least to some extent) on the deployment of labour within the household.

Productive work refers here to those activities which yield a return to the household (or individual(s) within it). It can include activities as diverse as cultivation, crop processing, home manufacture and gathering food. Paid productive work is restricted to activities carried out by a labourer for another household. Unwaged productive work is not necessarily unremunerated - it includes production for sale as well as for subsistence. There is a social distinction between entering an employment relation and thus submitting to the authority of an employer, on the one hand, and own household production, which is not subject to that particular power relation (though it is, of course, subject to others), on the other. The consequences of the deployment of individual labour power to different unwaged activities for the types of hired labour arrangements entered by the same and other household members

are central to the theme of this chapter. Hence the distinction between paid and unwaged work is primary.

I do not, however, attempt to distinguish between production for use and for sale because many unwaged activities, including cultivation of paddy (the main crop), are undertaken with both objectives - indeed the proportion to be sold may be decided on only after the needs of the household at the time of harvest (and prevailing prices) have been assessed. Low acknowledged that the allocation of labour to cash crop production was more akin to production for household consumption than to wage employment "in terms of [its] returns to the labour input of household members" (op. cit., pp40-41, see above). Unwaged own cultivation activity, whether for eventual exchange (cash crop) or use (food crop), yields only lagged returns. These differences in the timing of returns to unwaged productive labour, on the one hand, and to hired labour on the other, hinder direct comparisons. The opportunity cost of supplying labour to the 'market' would equal the discounted value of future income from a day spent in 'unwaged' productive activities. Given that 'preferences' are endogenous the calculation of opportunity cost would thus require estimation of each household's rate of time preference - clearly an impossibility, even if a use value could be imputed to make possible the calculation of the money value of future returns.

Reproductive activities (almost without exception unwaged in labour-selling households in the study villages) are separated here into 'daily' and 'generational'. Generational reproduction refers to activities concerned with the temporal reproduction of the labour power of the household - the production of labour power such that the household's level of living can be maintained in the future¹¹. It includes such activities as child minding, feeding and education. Daily reproductive activities, on the other hand, are those which maintain the level of living over the short term, such as fetching water, cooking, cleaning and homestead maintenance.

The 'choice' for poor labour-selling households is not between income and 'leisure' as suggested by the 'consumer' theory of labour supply. Rather, the material reproduction of the household requires engagement in multiple activities including paid work. Further, some of these activities (eg own cultivation) yield returns only in the future, which would need to be discounted in any comparison with wage rates; others (eg daily reproduction) are unvalorisable, being prior necessities to the supply of hired labour. The concept of 'involuntary unemployment' based on the existence of downwardly rigid wages and unemployment may be a misnomer if it is labourers rather than employers who resist wage cuts (Dreze and Mukherjee, 1987; Osmani, 1990; Mukherjee and Ray,

¹¹We restrict our analysis to material reproduction ignoring the important socialisation component of generational reproduction, whereby the social class of the household is reproduced via the inculcation of ideologies and patterns of behaviour (Clark, 1993, pp123-4).

1992). The construction of livelihoods from multiple occupations gives rise to a third hypothesis: that by engaging in unwaged productive activities, labour-selling households generate the power to resist decreases in wage rates. So-called 'reservation wages', defined as the minimum level of wages at which labour will be offered to the 'market', may exceed the level of income accruing from unwaged work. This implies that in order to prevent wage rates from declining, potential labour-sellers may 'reveal preferences' for unwaged activities with lower remuneration¹².

The concept of the income-pooling commensal household is retained here. Unlike in the households studied by Hart in the Muda region of Malaysia, where both women and men inherited property and the decision on residence was not predetermined (Hart, 1992a), inheritance among all the social groups in the study localities was patrilineal and residence was usually virilocal. Each *jati* was endogamous, though marriage was spatially exogamous - wives immigrating to the village of the husband. Exceptions to the latter were not uncommon, however. Four sampled households (approximately

¹²Because data were not collected on returns to most unwaged productive activities, it was not possible to compare these with the returns to hiring out labour. Thus the third hypothesis can be examined only indirectly by consideration of the reasons for the coexistence of downwardly rigid wages for hired labour with unwaged productive activities (generally with lower returns) in conditions (in peak seasons) of relatively high demand for labour.

eight per cent) in each study locality resided in or near the wife's *baperbari* (parents' residence)¹³.

The methods used for the activity analysis are set out in section 2.2.3. The activity analysis began as a time allocation survey based on twenty-four hour recall. However, it was found that individuals' recall of the length of time of unwaged activities (both productive and reproductive) was particularly vague. The problem was compounded when two or more activities overlapped, for example feeding a child and cooking. It was, nevertheless, possible to record the sequence of activities performed by individuals and to note the approximate length of activities of over two hours duration, and, in most cases, the number of times during the day discrete activities (such as feeding livestock or cleaning cooking utensils) were performed. These limitations in the data stand in the way of aggregation and statistical analysis of time allocation. Instead the deployment of individual labour power to particular activities and between productive and reproductive work is illustrated through the use of representative case studies. In the next section, an archetype of reproductive activities, both daily and generational, is described before we go on to analyze differences in the allocation of individuals to these tasks by locality, season, household size and structure.

¹³This arrangement is known as *ghar jamai* in north India, where it is associated with low male status (Jeffery et al, 1989; Jeffery and Jeffery, 1993).

6.3 THE DEPLOYMENT OF LABOUR POWER TO UNWAGED WORK BY LABOUR-SELLING HOUSEHOLDS IN THE STUDY LOCALITIES

6.3.1 Unwaged Reproductive Work

In this section, daily and generational reproductive activities in the sampled localities are described and the household members who carry them out are identified. Income from agricultural employment in the two localities is generally insufficient for the hiring-in of reproductive labour power by most labour-selling households most of the time¹⁴ - domestic servants were rare in the study villages. Thus one or more individuals in any household must expend their own labour power for the daily and generational material reproduction of that household if it is to maintain its level of living. To this extent, unwaged reproductive labour enables employers to pay wages below the real costs of subsistence.

In rural West Bengal, daily reproductive tasks¹⁵ include repairs to the structure of the dwelling, sweeping, spreading *gobar* (cow or buffalo dung) as a new surface over the swept

¹⁴There are exceptions, such as the hiring of a child-minder by one family of migrant labourers from Pukurgram and the hiring of a maidservant by an all male sample household in Dhanpur.

¹⁵The tasks we include in daily reproduction correspond closely to those which Mayoux categorises as "core household duties". These were defined as those "'service' aspects of women's work which were seen as being central to women's role as wives and mothers" (1982, p150). Thus they were defined according to a gender division of labour. Our main purpose in this section is to step back a stage and simply examine what the main daily and generational reproductive tasks consisted of and who performed them.

floor, fetching water, cooking, washing utensils, purchasing ingredients, serving food, and gathering leaves or twigs or making *gobar* cakes for fuel. Some of these, such as serving food and fetching water must be performed several times per day. This work is unwaged.

In both localities daily reproduction entailed ensuring that all household members had food to eat and water to drink, that the homestead and its contents were clean, and that repairs were carried out to prevent their deterioration. Cleaning is often the first activity of the day. The floor is swept, bedding stored away and a layer of *gobar* mixed with water spread thinly to create a new surface. *Gobar* spread in this manner is considered antiseptic (Mayoux, op. cit.) and effectively controls dust. A third cleaning activity is the washing of cooking and eating utensils from the previous night. The homestead is swept more than once per day, and the cooking space (most labour-selling households did not have a separate room for cooking) is wiped clean after cooking. The hearth or *chulha* is a hole in the floor with a hob moulded from mud.

Fuel for the *chulha* includes straw (in the Bardhaman locality at harvest time), wood (in the Purulia locality) and dried cow dung cakes (*guti*). If a household has access to its own *gobar* (through owning or share-rearing in cattle) then *guti* can be made after collecting *gobar* from the cattle 'shed' or wherever cattle are tied for the night. Similarly straw from a

household's own harvest is used seasonally as a cooking fuel. In many cases, particularly in the Purulia locality, where the cultivated areas are adjacent to recently deforested tracts, leaves and wood are gathered for use in cooking. Lighting the *chulha* is especially important in the winter, when temperatures drop very low at night. During the rainy season, when dry leaves and twigs are in short supply, the household makes use of *guti* (those without their own or share-reared cattle use *gobar* gathered from pathways), which must be made, dried and stored away on dry days. Making *guti*, collecting fresh *gobar*, spreading *gobar* and cleaning the cattle shed has been termed 'dung work' (Jeffery et al, 1989).

Water is required for drinking, cooking, washing clothes and bathing as well as for cleaning floors, washing utensils and for livestock. In the Purulia locality, water shortages in the hot summer season (April-June) are notorious - tanks and ponds and the Sonajal river dry up. People depend on hand-pumped water from public tubewells. In the Bardhaman locality, water from the Badamjal river is available for much of the year and is used for bathing and washing clothes. Hand pumped tube well water is used for drinking and cooking.

Even with fuel and water ready, cooking is laborious. Labour-selling households vary in their food consumption according to wealth and income, and the consumption of individuals within a household is not uniform. The activity analysis indicated that poorer households typically consumed two meals per day of

boiled rice at times of regular income and one meal on other days.

In less poor labour-selling households, particularly in Bardhaman, cooking included making tea and snacks, especially *muri* (puffed rice). Many sampled activity analysis households ate *panther bhat* (cooked rice soaked overnight in water) in the early morning. The main activities involved in cooking are cleaning rice (and any other ingredients used), lighting the *chulha*, placing the rice covered in water in a pot on top of the *chulha*, chopping vegetables or other accompaniments (depending on the season), grinding spices, frying the *torkari* (spiced vegetable) and/or occasionally *mach* (fish). Typically the first rice was eaten with the previous day's *torkari* and fresh *torkari* prepared for the second meal.

All of the labour-selling households had to purchase rice, at least for some months of the year. Onions, spices, potatoes and cooking oil were all purchased daily according to budget and season. Thus 'shopping' was an important part of daily reproduction. As we shall see in section 6.3.2 on unwaged productive activities, accompaniments for the rice other than potatoes, such as green leaves, small fish and snails were gathered wild by members of certain households.

After cooking, food was served. The head of household, if present, would be served first - but small children of both

sexes could be given priority and were often served leftovers before the main cooking began¹⁶.

Our data confirm the findings of many other micro studies (including those looking specifically at women's work (eg Mayoux, 1982) and the survival strategies of the poorest in West Bengal (eg Beck, 1991)) that gleaning, gathering fuel, all 'dung work', fetching water, cooking and serving food were carried out almost entirely by women. Of all the sampled households, the only one in which men had a major role in daily reproductive activities was an all male household.

Generational reproductive activities including the feeding, bathing, supervision and general care of babies and very young children were also regarded as the primary responsibility of women. Men did participate in the supervision of children¹⁷, but to a far lesser extent. Babies are weaned onto solids over 1-2 years and it was observed that for women at work in the homestead and elsewhere, breastfeeding took place at the same time as, or in snatched breaks from, other work. Child bathing and child minding were shared among household members, predominantly women. The care of very young children was

¹⁶This caricature of the main reproductive activities does not bring out the seasonal differences, particularly in the timing of cooking, nor the effect of household size and wealth on the quantity of food cooked daily. For example, in the peak season one labour-selling adivasi widow in the Bardhaman locality was informed that she would be required for work under a *bandha* (seasonal beck-and-call) arrangement the following morning during our conversation with her one evening. She said she needed to know the day before because she would have to rise at 4.30 to cook before going to work - on other days, the cooking stretched into the afternoon.

¹⁷Men were more involved than women in helping older children with their studies.

considered a suitable task for women too old to carry out more physically arduous activities.

Children's formal education was undertaken by parents as well as the children themselves at home and at school. Parents with very basic formal education, say class 1 or 2, provided extra tuition. Better off employer households in both localities commonly invested in private tuition. No attempt was made to quantify this practice in the study.

In the Bardhaman locality, of the 8 children aged 6 to 15 in the activity analysis sample 6 (3 girls and 3 boys) attended school and/or private tuition on at least one reference day. The only non attenders were a girl and a boy from a propertyless recently settled Santal household. 3 out of 8 children (2 girls and 1 boy) attended in the Purulia locality. The two girls were both from Santal households; there were only 2 boys in the sample. In the Purulia locality, *adivasi* secondary school students received free hostel accommodation with full board.

Education was given high priority, especially in the Bardhaman locality, despite the opportunity cost to the household in earnings foregone. Formal education was seen as a route to literacy, possibly even regular employment and increased status and bargaining power in marriage negotiations.

There was a clear expectation by men and women that women and girls contribute labour power disproportionately to unwaged daily as well as generational reproductive activities. The construction of the notion of women's 'responsibility' for daily reproduction of the household is not unexpected as it has been widely reported in other studies in south Asia and elsewhere. However, in order to understand how households deploy labour, we need to go further and ask *which* women carry out these tasks.

Kothari examined the effects of household wealth, and size, the number of women in the household, its structure (joint or nuclear) and the internal female hierarchy. We would expect from studies such as Jeffery et al's (1989) in Uttar Pradesh that new daughters-in-law entering a household outside their natal village would occupy the lowest point in the female hierarchy. Having the least power among women, we would expect them to be given the most drudgery intensive tasks, inside the homestead.

Only three activity analysis sampled households in each locality (less than a quarter of the total) were joint. Only one - in the Purulia locality - included more than two women over fifteen years old¹⁸. In Bardhaman, just one household had more than two females over the age of six¹⁹. Of the joint

¹⁸The household was composed of three adult women, three adult men and two younger members.

¹⁹The household was composed of two adult women, one adult man, and one younger member.

family households in the Purulia locality, two were made up of married sons and widowed mothers, while in Bardhaman one was composed of married son and widowed mother, one of widowed mother and widowed grandmother and one of two brothers, only one of whom was married.

In households with only one adult female and none of more than six years old (5 in the Bardhaman locality and 3 in the Purulia locality), the entire burden of daily reproductive work was borne by one woman. Even in households with one woman and a girl, or two or three women, 'responsibility' for the daily reproduction of the household lay with one woman. This woman was not always the youngest female in age. Typically if a woman had a resident teenage daughter, the mother would be responsible for daily reproductive work. In joint households where daughter-in-law and mother-in-law were both resident, the daughter-in-law would be responsible. Where both a daughter-in-law and a daughter were resident, the former took prime responsibility for daily reproductive work.

Although this intra-household division of responsibility corresponded to notions of a hierarchy of women in north Indian joint families, it differed on two grounds. First, as described above, nuclear family households were the norm and more often than not there was only one adult female in a household. Secondly, all the activity analysis households sell labour power, and most sold female labour power. In

households with more than one non-dependent female (ie able bodied female over the age of 6), another woman or girl would assist the responsible one, taking on board a few daily reproductive activities.

In eight of fourteen sampled activity analysis households in Purulia, prime responsibility for daily reproductive tasks switched between women at least once over the eight observations. In six households, this took place despite the continuing presence of the woman with prime responsibility. Often this was to reduce the burden of a woman, who was hiring out labour, the burden being shifted either to a resident daughter, or to the mother-in-law. In the Bardhaman locality, switching of daily reproduction responsibility was only observed in two households (one of which was all male, see below). A daughter enabled her mother to hire out labour. However, in five households, the person responsible for daily reproductive activities was regularly assisted by a daughter (three households), a mother (one household) and a son in the case of the all male household²⁰. In mixed households in both localities, male labour was only substituted for female labour when the women or girls were (temporarily) absent.

Table 84, taken directly from the activity analysis provides examples of the distribution of daily reproductive work on one day between a man and a woman in a household with just one

²⁰In the all male household, the father had prime responsibility for daily reproductive tasks.

Table 84: Examples of the Distribution of Daily Reproductive Work According to the Number of Non-Dependent Females:

Bardhaman Locality Sample Household 15: ONE ADULT WOMAN

09.10.91	01 M.35.HEAD	02 F.30.WIFE	03 M.20.B'TER
Daily Reprod'n		sweep x 2	shop
		spread gobar	
		cook x 2	
		fetch water x 3	
		wash up x 2	
		clean shed x 2	
		make guti	
		serve food x 3	

Purulia Locality: Sample Household 48 ONE ADULT WOMAN and ONE OTHER NON-DEPENDENT FEMALE

24.09.91	01 M.48.HEAD	02 F.35.WIFE	03 F.13.D'TER	04 F.9.D'TER
Daily Reprod'n		cook x 2	sweep x 2	
		homestead maint**	spread gobar	
		fetch water	fetch water	
		wash up x 2		
		serve food		

Notes:

B'TER = brother
D'TER = daughter
* = unit of two hours

Activities taking up two or more hours are represented in the table by an asterisk for each unit of two hours. Thus ** indicates that an activity lasted more than four but less than six hours.

A full list of activities in each category, with abbreviations used in these tables, is given in Appendix 4.

non-dependent female and between two women in a household with two non-dependent females²¹.

In households with two or more non-dependent females, the quantity of daily reproductive work performed was partly contingent on whether they also hired out labour and/or carried out unwaged productive work on the same day. Nevertheless, even when the 'responsible' woman spent many hours in productive work, she would be expected to at least assist her mother-in-law or daughter in daily reproduction. The worst off women were those, who, being the only non-dependent females in a household, were expected to carry out all daily reproductive work, often in addition to a full day's productive labour. Several women in the Purulia locality and in *adivasi* households in the Bardhaman locality combined reproductive with productive work outside the homestead. Other women in the Bardhaman locality did carry out both productive and reproductive work, though not outside their own or (occasionally) others' homesteads.

The ideology that daily reproductive tasks were the 'duty' of women pervaded all castes and wealth groups in the two localities. However, in one household headed by a widower the absence of non-dependent females forced men to adopt this role. Table 85 illustrates the distribution of daily

²¹As explained at the end of 6.2.4, because of the qualitative nature of the data collected in the activity analysis, the argument in the text is backed up by representative case studies rather than by statistical analysis.

Table 85: The Distribution of Daily and Generational Reproductive Activities in an All Male Labour-Selling Household:

Bardhaman Locality: Sample Household 1: THREE ADULT MEN AND ONE OTHER NON-DEPENDENT MALE

07.10.91	01 M.55.HEAD	02 M.25.SON 1	03 M.20.SON 2	04 M.8.SON 3
Generatn Reprod'n	child bathe			study
	child mind			
Daily Reprod'n	sweep x 3		sweep	untie stock
	serve food x 3		spread gobar	tie stock
	fetch water x 2		clean shed	
	cook x 2		make guti	
	wash up		wash up x 2	
			untie stock	

Notes:

In this table, I have shown generational as well as daily reproduction activities to emphasise that these too were carried out by males in this household.
A full list of activities in each category, with abbreviations used in these tables, is given in Appendix 4.

reproductive tasks between the household head and his second son on 7th October 1991.

When daily reproductive work was carried out by men out of necessity, they did not experience the same lack of autonomy as women. For example, on 7th October, individual 03 from household 1 (see table 85) went fishing and listened to the radio in the afternoon. Indeed, in the peak season, this household hired in female domestic labour at half the going rate for agricultural work to release one male for paid employment. The "cost" of replacing the male reproductive labour was thus Rs 6 and 1 kg of rice. The returns from the male household member's paid employment were Rs 12 and 2kg of rice. Despite equality in male and female harvest wage rates in the Bardhaman locality, female household labour was never replaced in this way, providing further evidence of the gendered practice of daily reproductive work. Only in all male households, including those where women were temporarily absent, did reproductive tasks lose their gender specificity. Similarly, the dung work, which men and boys do not carry out in any household which includes a girl and/or a woman, is carried out by male *rakhal* workers for their employers. In the Bardhaman locality, two workers in *rakhal* arrangements spread *gobar* on the employer's threshing yard.

Maintenance of the homestead, also classified here as a daily reproductive activity, included constructing or repairing mud walls and thatching and was mostly carried out by men.

However, it was much more common for women to assist men with carrying mud for repair work than for men to assist women in other daily reproductive activities. Shopping within the locality was apparently ungendered among labour-selling households.

In both localities both men and women considered females primarily responsible for daily reproductive work. In male headed households with more than one non-dependent female, which female was responsible for cleaning, cooking, fetching water, dung work etc, was also determined according to prevailing ideologies of female and generational hierarchy. For a given household size, however, the most important factor influencing the size of this woman's daily reproductive workload was the number of non-dependent females in the household. The presence of at least one other led to a slackening of the reproductive workload of the responsible female, when the latter was especially heavily involved in paid or unwaged productive work.

6.3.2 Unwaged Productive Work

In the last subsection, I discussed arrangements for reproductive labour in the two localities, focusing in particular on the types of reproductive work and how they were allocated within the household. However, even when income derived from hiring out labour is combined with daily and generational reproductive activities, it is insufficient to

ensure the household's basic material reproduction over the whole year. Most labour-selling households engage in unwaged productive work such as own cultivation or home manufacture. This not only increases the total income of the household, it also constrains the supply of labour to paid work. Earnings from employment are limited by, among other things, the seasonality of paddy cultivation.

In order for a household's livelihood to be secure, at least some time must be spent in unwaged productive activities. These vary widely, according to the asset base of the household. If the household owns or rents in land or livestock, some of its labour power is likely to be allocated to cultivation or livestock rearing. The output of these activities may be sold or consumed. The same was true of many other unwaged productive activities, including the gathering of food and fuel, and embroidery or broom making. The common features of these categories of activities were that, while they produced tangible outputs in the form of either cash following a sale, or goods for household consumption, the labour involved was not paid a wage.

Table 86 illustrates the proportion of days spent by sampled activity analysis individuals in paid and unwaged productive work. Of course, these activities often entail different levels of work intensity (Mayoux, 1982, p151; Guha, 1993). Moreover, individuals regularly engaged in both paid and unwaged productive activities on the same day. However, the

Table 86: Percentage of Days in which Adults in Sampled Activity Analysis Households Engaged in Unwaged and Paid Productive Work:

	Sex	No. of days	% Unwaged	% Paid
Bardhaman lean season	M	58	56.9	32.8
	F	51	74.5	11.8
Bardhaman peak season	M	53	50.9	67.9
	F	52	82.7	19.2
Purulia lean season	M	69	75.4	26.1
	F	89	57.3	21.3
Purulia peak season	M	48	62.5	29.2
	F	54	66.7	33.3

Note that the proportion of adults in paid work in the Purulia locality does not include those working as seasonal migrants at the time of the activity analysis interview. These account for part of the reduction in the number of adult working days recorded in the Purulia locality in the peak season. These were also reduced by the division of two households during the field work. Following the splits, only two of the four new households were interviewed for activity analysis records.

table is particularly useful as it highlights the very different gender divisions of paid work in the two localities. Whereas the proportion of days in which men were employed in the Bardhaman locality was approximately three times the proportion on which women were employed in both seasons, the proportions of days on which men and women were employed in the Purulia locality were almost equal in the lean season. In the peak season, of those remaining in the locality (ie not including seasonal migrants), women were employed on a higher proportion of days than men.

The table also illustrates the much greater proportion of peak season days men worked in paid employment in the Bardhaman locality compared to the Purulia locality. This reflects a higher demand for harvest labour on the part of Bardhaman employers, the presence of more labourers in long duration arrangements in the Bardhaman than in the Purulia locality sample, and the extent to which own cultivation is important to labour-selling households in the Purulia locality. Men in the Purulia locality worked a higher proportion of days in unwaged productive work in both seasons than men in the Bardhaman locality. On the other hand, a higher percentage of women undertook unwaged productive activities in the Bardhaman than the Purulia locality. However, as women from households of the Bagdi and Muslim and Muchi households do not work outside the household and Santal households have relatively little land, the unwaged productive work carried out by women is, in the main, not concerned with cultivation. A gendered

breakdown of types of unwaged productive work by locality and season is given below.

Beck has provided very detailed information on the unwaged productive activities of the poorest households in three villages of West Bengal (1991, Chapter 7; 1994). Beck found that the use of common property resources (CPRs - albeit privately owned ones) and the share rearing of livestock, were instrumental in the reproduction of these households. The uses of CPRs included gleaning left over grain from harvested paddy fields, and unearthing stores of grain in the *al* between plots, which had been buried by rodents²². The rodents were then killed. This activity required the permission of the owner of the plot, who also benefitted, as it reduced the rodent population. Beck asked respondents to quantify the "output" of gleaning. He also calculated the value of other gathering, especially that of wild foods.

Most unwaged productive activities in the sampled households fell into one of five categories: own cultivation, livestock rearing, crop processing, gathering of food²³ and home manufacture. Table 87 shows the number of days (activity analysis) sampled household members of all ages spent in each category of unwaged productive work by locality, season and

²²Referred to by Dikshit Sinha (1984, pp18-19) as *indurdhan* (literally rat's paddy), in his study of the Hill Kharia of Purulia.

²³Gathering of raw materials for home manufacture is classified here as part of home manufacture and gathering of fuel as daily reproductive work.

gender. Of the 306 adult days and 92 child and elderly person days which included unwaged productive activity, 107 and 18 respectively included combinations of those activities.

Own Cultivation:

The requirements of own cultivation varied according to season, reaching a peak during the transplanting and harvesting of *aman* paddy. While the transplanting of *aman* paddy in both localities followed a similar timetable to that of employers, labourers' paddy harvest in the Purulia locality was often completed early. Purulia locality labourers cultivated high (*baid*) land, with lower water retentive capacity than the low (*bahal*) land.

Only those labour-selling households, which owned or rented in land, deployed labour to own cultivation activities. Two of the fourteen households in the Purulia sample and four out of twelve households in the Bardhaman sample were landless. Table 87 indicates that own cultivation took up far more sampled household members' time in the Purulia than in the Bardhaman locality in both seasons. In the Bardhaman locality, the work was mainly confined to the peak season and carried out more by men than by women. In the Purulia locality, on the other hand, there was far less difference between the seasons in terms of the numbers of days involved. Men reported working in own cultivation more often than women in both seasons, though the difference was much greater in the

Table 87: Number of Days Spent in Unwaged Productive Work by Category of Work, Locality, Season and Gender:

Locality	Season	CULTIVATION		
		M	F	Tot
Bardhaman	Lean	4	0	4
	Peak	15	9	24
Purulia	Lean	25	8	33
	Peak	21	16	37
Locality	Season	LIVESTOCK		
		M	F	Tot
Bardhaman	Lean	30	48	78
	Peak	22	46	68
Purulia	Lean	31	34	65
	Peak	5	11	16
Locality	Season	CROP PROCESSING		
		M	F	Tot
Bardhaman	Lean	0	6	6
	Peak	3	14	17
Purulia	Lean	1	19	20
	Peak	5	32	37
Locality	Season	GATHERING FOOD		
		M	F	Tot
Bardhaman	Lean	7	10	27
	Peak	5	9	14
Purulia	Lean	5	7	12
	Peak	2	0	2
Locality	Season	HOME MANUFACTURE		
		M	F	Tot
Bardhaman	Lean	4	11	15
	Peak	0	4	4
Purulia	Lean	3	19	22
	Peak	2	2	4

lean season.

The four days of lean season own cultivation activity reported by Bardhaman locality households involved three men, all heads of households with asset rank three (ie the least poor labour-selling households). Two men reported just going to check the progress of paddy crops on particular days. One of them cut a small amount of early variety *aus* paddy. The third man reported weeding paddy on one day early in September and then cutting, carting and stacking *aus* paddy in early October. This last household only qualified as a "labourer" household because the household head hired out occasionally to his father-in-law²⁴.

In the Purulia locality, over a quarter of male days in lean season own cultivation activities involved guarding the crop from pests and theft. Another quarter involved visiting the plot to check on its progress and make management decisions. Only four of the twenty-five days involved weeding. Women worked at weeding on three days and cutting early paddy (or in one case jute crops) on other days. The gender division of labour reflected here was one in which men were 'responsible' for the protection and management of the crop and heavy earthwork, while women carried out the few necessary cultivation tasks.

²⁴As defined in chapter two (section 2.2.3), any household which hired out labour on at least one day was classified as a labour-selling household. This accounts for the wide range of wealth among labour-selling households.

In the peak season, reported own cultivation activities took up a much larger proportion of the working time and effort of any particular day than in the lean season, when time spent (say on checking the crop) could be minimal. In the peak season, just four of the Bardhaman households reported own cultivation activities. They all belonged to asset rank three (the highest for labour-selling households), though to different *jati*. One household was composed entirely of males. In the other three households, cultivation activities - mainly concerning the paddy harvest - were carried out on equal numbers of days by men and women. Men carted paddy from the field to the homestead, supervised the crop, ploughed again and irrigated potatoes. Women and men threshed paddy, but only women were involved in storing it. Except for one Santal woman, women did not work outside the homestead.

In the Purulia locality, men cut and bound paddy, carted it to the homestead and threshed and stored it. They also ploughed for potatoes and *boro* paddy (one household), sprayed pesticide and irrigated *rabi* crops generally. Women cut, bound, threshed, carried and stored paddy and stacked straw. Transporting paddy was the only paddy harvest activity in which women and men were differentially involved - men carted and women carried²⁵. Women in the sample were not involved in the cultivation of other crops in the peak season. One Bhuinya woman was responsible, together with her 12 year old

²⁵Women were rarely employed to bind paddy, although this did not prevent them binding their own paddy crop.

daughter, for cutting, binding, carrying threshing, stacking and storing the paddy crop, while her husband had migrated for the season to Bardhaman.

Livestock Associated Activity:

Livestock provided insurance against calamity as well as an occasional supply of meat. They also supplied *gobar* for fuel and fertiliser, and, in a few cases, milk. Hens and female ducks provided eggs. Livestock could be traded for a profit. In the Bardhaman locality, livestock associated activity was reported on more days than any other category of unwaged productive work in both seasons. The same was true in the Purulia locality in the lean season, while in the peak, livestock associated activity was reported relatively rarely. Men from at least three Muslim households in Pichanpara traded cattle in the lean season. Each purchased 6-8 buffalo bullocks (*kara*) from Kashipur hat (periodic market-place) on Thursdays and sold them at Solukpahari (near Bankura town) on Mondays. As this trade involved long journeys on foot with the cattle, night lodgings were sought on the road from private households, which received all the *gobar* left behind. The price per head of stock ranged from Rs 1500 - Rs 2000 and they were sold at a margin of Rs 100 - Rs 200. Trading of cattle was thus a means of accessing income close to the day of work without entering an employment relation. Potential gross returns at Rs600-1600 per week far exceeded earnings from any available employment (this would have been true even

for piece rate (*thika*) arrangements, earnings for which regularly exceeded 5 kg hulled rice equivalent (Rs 25-30) per day). Clearly a simple economic rationale based on a comparison of earnings could lead an individual to 'choose' unwaged over paid productive work²⁶.

Sampled households both owned and, in the Bardhaman locality, share-reared livestock (see table 88). Share-rearing (*pousani*) locates the labour inputs involved in livestock rearing with the rearer, whilst the original owner retains rights to every second female offspring, or half the value of male offspring at sale (see also Beck (1991, pp 175-184) and White (1992, pp81-85) for detailed descriptions of share-rearing in West Bengal and Bangladesh respectively²⁷).

The inventory of sampled household livestock in table 88 reveals another striking contrast between the two localities. Nine Purulia households owned teams of draft animals. The two landless households were among those which owned none. Draft animals were owned by none of the labour-selling households in the Bardhaman locality. Much (although not all) draft power was mechanised there, unlike in Purulia, where there were

²⁶However, this particular activity does depend on access to relatively large amounts of financial capital (Rs 9000-16000).

²⁷White argued that share-rearing was a form of patronage - an expression of pleasure with the rearer-in on the part of the rearer-out. Widespread share-rearing in the Bardhaman locality adds weight to the argument that personalised patron-client ties characterise labour relations there more than in the Purulia locality. This finding would appear to concur with Rudra's of 'backward' production relations in an area of relatively developed forces of production (1987).

Table 88: Inventory of Owned and Share-Reared-In Livestock Among Activity Analysis Sampled Households in the Bardhaman and Purulia Localities:

Bardhaman Locality:

HH NO	OWNED							SHARE-REARED		
	DRFT	MLCH	GOAT	SHP	PG	PLTRY	DUCK	MLCH	GOAT	PLTRY
1			7			9	3		1	
2								1		
16		1	3			2	2			
18			2			1	1			
19								1	1	1
23			2			5	2		1	2
29										
32						2	2		3	
34		1	1			1			2	
35						4				
36						6				
39			3			6	5		1	

Notes: DRFT = draft animals
MLCH = milking animals
SHP = sheep
PG = pig
PLTRY = poultry

Source: Base Line Survey (December 1991)

Table 88 (contd)

Purulia Locality:

HH NO	OWNED						
	DRFT	MLCH	GOAT	SHP	PG	PLTRY	DUCK
16						1	
18	2		4			2	
20	2		1			1	
22							
24	2		7			5	4
27						4	
32	2		1			7	
33	2		6				
34	2					2	
35	no information						
38							
46	2	3	5	2	1	3	
48	2		2			2	
50	2		1		6	1	

Notes: DRFT = draft animals
MLCH = milking animals
SHP = sheep
PG = pig
PLTRY = poultry

Source: Base Line Survey (December 1991)

still no tractors. Very few milch cattle were owned by sampled households in either locality. However, two Bardhaman locality households share-reared milch animals in. Goats and poultry were commonly owned in both localities. Only one household in Purulia owned ducks, although they were found in most employers' households. Pigs were kept by two sampled Santal households in the Purulia locality but were considered unclean by other *jati*.

Cocks were reared for fighting by several *adivasi* and 'untouchable' Purulia locality households and one signifier of distance between those households and caste Hindus was the latter's avoidance of poultry keeping. Fighting cocks were fed high quality diets (including milk and rice) by young men in relatively poor households. There was little to match the adrenalin of the *murag lorai* (cock fight), where victory meant feasting on the opponent's dead cockerel and glory both for the individual and his *para* (neighbourhood). Indeed, such was the excitement that young Goala men, who were forbidden from cockfighting, nevertheless took training from Bhumij men in the locality²⁸. One Bhumij man was skilled at *chaku bandha* (tying a lethal knife around the cockerel's ankle just before the fight). He received Rs5 per cockerel and a share of the meat of any defeated opponents.

²⁸Kelkar and Nathan (1991) suggest that non *adivasi* people in the Jharkhand area (of which Purulia is a part), shared local identity and culture with 'indigenous' people. Our evidence suggests a separation of identities between caste Hindus and *adivasi* but also provides occasional examples of shared cultural practices.

All livestock need to be shut or tied up securely at night to avoid escape or theft. They also require daily feeding, grazing or both. Securing and untying livestock was included in daily reproductive activities (see 6.3) as was the cleaning of livestock living space. Feeding goats, bullocks and milch cows involved first preparing feed by cutting grass or chopping straw as well as fetching water. Scraps of food were scattered on the ground for poultry.

In the Bardhaman locality, which was more densely populated and intensively cropped, grazing of livestock was limited. In the Purulia locality grazing was more widespread, especially in the peak season. In the wet 'lean' season, grass cutting took place as foliage was plentiful. Straw was provided when available, generally around the time of the *aman* harvest in November-December.

The work of feeding livestock and preparing the fodder was carried out by both men and women, although women worked more than men in both localities. Grazing of cattle and small stock was practised only by the very young and old. Recently married women in particular did not graze cattle, nor cut grass outside the homestead. They did, however, cut straw and feed livestock.

In the Purulia locality, livestock were grazed either by *bagal* (cowherd/shepherd - see chapter 4) or by a boy or girl from the household. Because livestock were grazed in very large

numbers, many fewer person days recorded in the activity analysis involved livestock work in the Purulia locality 'peak' season. Of the eleven days reported in livestock work by women and girls, ten referred to the grazing work of girls. There were only two boys in the Purulia activity analysis sample; neither reported grazing livestock or indeed any productive work - paid or unwaged. Even in the Bardhaman locality, where boys did report four and three days in livestock associated activities in the lean and peak seasons respectively, only about half of their recorded days were spent in productive activities compared to 70 per cent of girls' days, evincing the early socialisation of females into roles of 'responsibility'.

In the Purulia locality, twenty six of the sixty five days on which livestock activities were reported in the lean season, involved grazing. Old women and girls accounted for eighteen of these days. Two were reported by married Santal women (wives of household heads). In the Bardhaman locality in the lean season, grazing accounted for a lower proportion of livestock activities - 13 out of 78 days. 8 were reported between 3 women - one a married woman living in her natal village, the second an old widow and the third a young girl.

In the peak season in the Bardhaman locality, three households varying in *jati*, wealth and *para* reported 9 days grazing out of 68 in livestock activities for the whole sample. In two of these households, a boy, and in one a girl, grazed the stock.

Grazing stock was the main productive contribution of one boy, whose 11 year old sister was fully integrated into other unwaged productive as well as daily reproductive activities.

We can tentatively conclude from this evidence that, in the Bardhaman locality, whether a goat, bullock, cow, pig or sheep is grazed depends on household demographic factors. Grazing livestock is time but not energy intensive. It is only suited to households with children or elderly members, whose time carries a low opportunity cost. There are no *bagal* in the Bardhaman locality, so that other types of household wishing to rear livestock, must prepare food and feed them within the homestead in order to coordinate livestock with other productive and reproductive activities. In the Purulia locality, it was common even for labour-selling households to send their livestock for grazing with a *bagal*. Both men and women in both localities prepared fodder and fed livestock, jobs not generally entrusted to children or the elderly.

Crop Processing:

Processing paddy into rice added value to the crop and, in both localities, was often done in husking mills owned by relatively wealthy cultivators. However, in the Purulia locality, almost all households possessed a *dhenki* - a large plank with a fulcrum near one end - for hulling paddy for household consumption. At the end of the plank near the fulcrum, one person (usually a woman) would stand, moving the

plank up and down with her foot. At the other, another person would push paddy into a hole in the ground to be husked by the action of the falling plank, which had a pestle attached to its other end. *Dhenki* were also used for grinding rice to prepare *pita* cakes - both sweet and savoury - made from rice flour and for flattening paddy into *chira* (rice flakes). Rice was also processed into *muri* by roasting it on the *chulha* in a large pan.

Before processing paddy into rice it had to be soaked, parboiled and dried again in the sun. This work was carried out in the homestead in both localities. In the Purulia locality, paddy that was to be consumed as rice was parboiled twice, while paddy for *muri* was parboiled three times. *Muri* and *chira* were relative luxuries in the Purulia locality, consumed regularly by employer households but hardly at all by members of poorer labour-selling households (except when *muri* was provided as a morning snack by an employer during a day of paid employment).

Table 87 indicated the overall 'responsibility' of women for crop processing in both localities, whether the final product was to be sold or consumed. Two activity analysis households processed paddy as a business - using women's unwaged labour. One, a landless (nuclear) Muslim household, bought paddy and processed it into rice throughout the *aman* harvest season. The male household head travelled outside the *para* to buy

paddy and then further afield to sell the rice. He took a subsidiary role in parboiling and drying the paddy.

Husking was carried out in the mill. The other household (Bhuinya *jati*; also nuclear) specialised in processing paddy into *chira* for sale after the harvest, mainly to relatively wealthy Goala households. In this case, both husband and wife were involved in operating the *dhenki*, but the woman sold *chira* door to door in the locality.

Processing paddy added to women's work burden in almost all households during the busy harvest season, especially in less poor labour-selling households with a larger harvest. In the Purulia locality, even the poorest households had to process paddy into rice when wages were paid (or consumption loans were taken) partly in the form of paddy. The relatively large number of days reported as processing paddy in the lean season in the Purulia locality reflects the need to process paddy into rice throughout the year. Paddy was also used as currency, however, to buy small items of grocery, such as potatoes, onions, spices or oil. Labour-selling households in the Bardhaman locality were paid in rice and thus had much less need to process paddy.

In the Bardhaman locality, two households reported processing supplies of their own paddy in the lean season. The women involved on these six days were the wives (and on one day the mother) of heads of two labour-selling households of

relatively high asset rank. The paddy was parboiled and dried by women ready to be taken to the husking mill. Even in the peak season, men were as rarely involved in processing paddy as they were in daily reproduction work. While women soaked, parboiled, dried, and in one case hulled rice by *dhenki*, one of the three days reported by men involved carrying parboiled paddy to the husking mill, another involved the head of an all male household and on just one day, the male head of a Santal household took part in parboiling paddy.

Soaking and parboiling were very laborious. They involved the manoeuvring of heavy loads of paddy and water and continuous tending of the *chulha*. Drying paddy was time intensive - paddy was spread in the sun and stirred by foot at intervals to expose damp grains. Elderly women were occasionally deployed to dry paddy in both localities.

This evidence suggests that, in the Bardhaman locality, crop processing is a major productive activity only for partly self sufficient labour-selling households - cultivating significant areas of land. In the Purulia locality, crop processing was more widespread because of the payment of some wages and loans in paddy and the less skewed land distribution. However, in both localities a strict gender division of labour operated, with men only involved when paddy was being processed as a business activity.

Gathering Food:

In the Purulia locality, gathering from common property resources, particularly the materials used in home manufacture, was reasonably widespread. However, the gathering of food was reported relatively rarely. In the lean season, men reported fishing on four occasions, while women reported collecting wild greens for *torkari* on seven. In the peak season, fishing was reported twice (by men).

Fishing is a low intensity activity, which was not practised by females. Most married women would not have had time to spend 4 to 8 hours fishing in the *pukur* as some men did. Fishing took place more often towards the end of the wet 'lean' season, when tanks were full of water and fish. Access to fish in the main Pukurgram *pukur* and in other large *pukur* was restricted by a complex system of inherited shares. Conflicts over the fishing rights of some of the larger employer households in Pukurgram were the source of severe factional disputes.

In the Bardhaman locality too, gathering was reported in the lean season more than the peak. This was expected because of the lower number of days on which labour was hired out and the consequent reduction in labourers' income. In the lean season, 16 out of the 27 days reported included fishing. On 2 days females (one woman and one girl) from landless Santal

households fished in the flooded fields. Gleaning was reported on two days.

After the potato harvest in February or March (not part of the activity analysis), gleaning was particularly common. Four stalls set up business on the bank of the Badamjal river buying gleaned potatoes from small children and preparing snacks for sale. In the lean season studied, food collection included snails, *kachu* (a root relied on particularly in times of hunger (see Beck, op. cit., p162)), wild greens and, in one case, a bird. Women collected wild greens from areas close to the homestead.

15 of the 27 days involving the gathering of wild food were reported by the two Santal households in the activity analysis sample. The full report on unwaged productive activities by one of these households on the 17th September 1991 is reproduced in table 89.

The two Santal households contrasted strongly by wealth - they were at opposite ends of the labour household asset ranks. One, composed of a lone mother with two young children (a girl and a boy), was completely propertyless, relying on the woman's employer for shelter. The other, a married couple with two slightly older children, cultivated 3 *bigha* (one acre) of *aman* paddy and mustard on fixed rent and 0.1 *bigha* of *aman* paddy on their own plot. They also had cultivation

Table 89: Gathering of Food as an Unwaged Productive Activity by a Sampled Santal Household:

17.09.91	01 M.50.HEAD	02 F.45.WIFE	03 F.11.D'TER	04 M.8.SON
Prodctve Unwaged	fodder prep x 2	parboil paddy	coll snail	fish*
	feed stock x 2	dry paddy		
	fish*	feed stock		
		coll greens		
		coll snail		
		make mat		

Notes: D'TER = daughter

rights to a small amount of boro paddy in exchange for guarding and irrigating the landlord's boro crop.

In the peak season in the Bardhaman locality, Santals (one small boy and one widow) reported collecting rats on four days and collecting greens on another four. Greens were also collected by Bagdi women, but only those for whom Dhanpur was their natal village (except one day reported by an old widow). Fishing was reported only on two days and by men.

Home Manufacture:

In both localities, 'home manufacture' was reported more often in the lean than the peak season. It was reported much more widely in the Purulia than in the Bardhaman locality (see table 87). In the Purulia locality, 'home manufacture' involved the collection of grass sticks for the making of brooms, and the collection of *sal* leaves to make leaf plates for sale. 16 of the 19 lean season observations involved one of these activities. The others were of sowing patchwork quilts (*kantha*), making palm leaf mats (*talai*), making rope and carpentry. Men only reported home manufacture in the latter two categories. They were not involved at any stage of the manufacture of brooms or leaf plates (unlike in the village in Birbhum district studied by Mayoux (op. cit.), where boys and men acted as collectors of raw materials for home manufacture). Girls and elderly women were involved in these activities as often as the 'responsible' woman of the

household (see 6.3). Gathering grass sticks and *sal* leaves from what remained of the forest in the Purulia locality was compatible with the collection of leaves and wood for cooking fuel, also a 'female activity'.

In the peak season, two women reported manufacturing leaf plates while their husband (in one case) and son and daughter-in-law (in the other) were absent earning money as seasonal migrants in Bardhaman District. Two men reported home manufacture in the peak season - one reported repairing his bullock cart and the other making rope - the same home manufacturing activities that men had been involved in in the lean season. This suggests a clear gender division of home manufacture.

In the Bardhaman locality, women reported making *ason* (embroidered sitting mats), *kantha* and *chadar* (winter wraps) on ten days in the lean season and four in the peak. Men reported making fishing nets on three days in the lean season. The women involved were the 'responsible' women of their respective households. In one case, in the absence of a woman, an *ason* was finished off by a boy.

6.4 CONCLUSION

In this chapter, I have summarised and criticised three schools of thought regarding the logic of deployment of individuals in a household to different activities. I went on to describe the types of unwaged activities engaged in by small samples of labour-selling households in the study localities, distinguishing 'reproductive' from 'productive' activities for analytical convenience. The evidence supports the argument found in recent household relations literature that relations between women and men are not universally given, but vary according to *jati* and wealth even within a single village. It also highlights the very different deployment 'choices' faced by landed as opposed to landless labour-selling households.

Here I draw conclusions relating to our three initial hypotheses, first that the logic of deployment of individual labour power within households is socially embedded and secondly that the supply of hired labour in the study villages - including the supply to particular labour arrangements - is contingent on deployment to unwaged reproductive and productive activities, not all of them valorisable. The reliance of the comparative advantage approach to labour deployment on price proxies renders it empirically untestable. It was hypothesised thirdly that engagement in unwaged productive activities generates the power to resist decreases in wage rates.

6.4.1 The Logic of Deployment

"It is often implied ... that gender ideologies are just ideas, cultural beliefs and notions, which are somehow attached to economic and political processes but are not constitutive of them...[E]conomic processes such as the differentiation of tasks by gender...are actually a set of practical activities, which operationalise gender ideologies. They are, therefore, in some sense the outcome of local ideas about the appropriate behaviour of women and men."

Henrietta L. Moore (1992, p135)

The seasonality of agricultural production and of employment possibilities, together with the level of wages, necessitates the deployment of labour power to unwaged work, both reproductive and productive, just for survival. But this is not the end of the story by any means. In order to understand which households deploy which individuals to particular activities and when, we have to look more closely at the construction of roles within the household on the basis of individual gender, age and relationship; within a locality on the basis of household wealth and *jati*; and at the demographic variables differentially limiting household access to labour power.

The data presented in the two preceding sections suggest that gendered practices are locality-specific and that they are the

outcome of the interaction of multiple gender ideologies with others (eg ideologies of caste) and with demographic and economic variables²⁹. Despite this, women in both localities and across social groups were shown to have been socialised from an early age into 'responsibility' for unwaged daily reproductive work. In households with just one non-dependent female, this responsibility was borne by that woman. While men in landed labour-selling households consistently worked more days in own cultivation than women, the gender division of other unwaged productive activities manifested in the ideological deployment of women to livestock care, crop processing, and home manufacture. Women also gathered wild food more than men in both localities, although the contrast was less stark because of the number of days males spent fishing and Santal boys in the Bardhaman locality spent catching rats.

Table 90 illustrates the working day of one woman from the Muchi jati in the Bardhaman locality, in relation to the working days of her husband and his brother. The division of activities into four categories of work highlights the triple burden of this woman, even though she does not hire out labour.

Nevertheless the data also suggest that men as well as women are oppressed by gender ideologies and kinship relations. In

²⁹Recent literature (eg Hart, 1991, 1992a; Folbre, 1994) suggests that gender ideologies are not fixed, but, rather, contested and shifting. Analysis of such changes was beyond the scope of this thesis.

Table 90 An Illustration of the Triple Burden of a Non- Labour-Selling Woman from a Labour-Selling Household

Bardhaman Locality: Sample Household 34

18.11.91	01 M.35.HEAD	02 F.30.WIFE	03 M.20.B'TER
Generatn Reprod'n		child mind**	
		breast feed x 2	
		child bathe	
Daily Reprod'n		sweep x 3	shop
		spread gobar	
		cook x 2	
		wash up x 2	
		serve food x 3	
		untie stock	
		fetch water x 3	
		serve food x 3	
		clean shed	
Prodctve Paid	plant potatoes ****		plant potatoes ****
Prodctve Unwaged	feed stock x 2	feed stock x 3	
	milk cow	collect wage (03)	
	fodder prep	fodder prep	
Other		prayer	play tape

Notes:

B'TER = brother

Individual 2, the lone woman in the household, collects the wage of one of the men, who are both hiring out. The collection of the kind portion of the wage during the working day was reported by a number of households in the Bardhaman locality.

the Bardhaman locality, for example, one male household head with no land of his own and resident in his wife's village of birth worked at the 'beck-and-call' of his wealthy father-in-law. One labour-selling household in the Purulia locality shared a compound with the household head's brother, who had a salaried job as a police officer. The male head of the former household worked for his brother and others on occasion, and was overcome by feelings of inadequacy, when, during the field work period, he returned from two weeks employment in harvest work in Bardhaman without wages, as his employer had refused to pay him. He became severely depressed and unable to hire out labour for over a month.

By identifying differences in household labour deployment by locality, wealth, *jati*, gender and age we have been able to illustrate how certain ideologies manifest themselves in institutional practice. First, the data suggest that Santals in both localities practised a broader range of activities than other *jati* (see also Mayoux, pp173-175). In the Bardhaman locality, Santals retained the practice of gathering wild food, just as Santals in the Purulia locality gathered raw materials for home manufacture more frequently than others and grew a diverse range of crops, including maize and jute. Secondly, the spatial constraints on women's activities differed by locality, *jati* and kinship relation, and are thus contingent on these factors. In the Purulia locality, women from labour-selling households of all *jati* wandered far from the homestead to collect fuel, fodder and raw materials for

home manufacture of brooms and leaf plates. However, they did not fish in *pukur* and grazing by females was reported only by young girls, old women and married Santal women. In the Bardhaman locality, Bagdi, Muslim and Muchi women born outside the village did not venture far from the homestead to gather wild greens, while Santal women reported gleaning in rice fields. Grazing in the Bardhaman locality was reported only by boys, Santal women, girls born locally and old women. Home manufacture involved purchased rather than gathered raw materials.

Landed and landless labour-selling households face different sets of 'choices' for labour deployment. If a labour-selling household in the Bardhaman locality has access to and cultivates land, the male workload is likely to increase as cultivation is viewed there as a male activity. In some cases, particularly in the peak season, when men both hired out labour and cultivated crops on owned or rented land, they experienced a 'double burden' of paid and unwaged productive work. In another instance, a man employed as a *rakhal* worked a twelve hour day and then hired out labour in a *phuron* (group piece rate) arrangement in the evening. Women from landed labour-selling households in the Bardhaman locality had greater unwaged crop processing workloads - especially soaking, parboiling and drying paddy - than women from landless households.

Landless and near landless labour-selling households in the Bardhaman locality were more likely than landed labour-selling households to be precommitted to particular employers in the peak season. Those who were landless in the Purulia locality, or who controlled only very small plots of land, were more likely than landed labour-selling households to be committed through debt to work below the going rate in the peak season. Because of their greater insecurity in the lean seasons, and because they did not have an 'option' for own cultivation, landless households in both localities were more constrained in the scope of possible productive activities than landed households.

Household size also influences the deployment of labour. We have commented already on the importance of the number of females in influencing the workload of the one woman primarily identified with 'responsibility' for daily reproductive work. If this essential work is shared with one (or more) other(s), that woman can contribute more time and energy to the household's productive activities. However, the number of able-bodied household members increases the reproductive workload as well as the productive possibilities of a household. The large size of a household may raise the quantity of reproductive work so substantially as to exclude one or more women from hiring out labour.

Even with some knowledge of the interplay of ideologies influencing the deployment of men and women, young and old, to

different activities and with our assumption that members of poor labour-selling households coordinate livelihood activities, we cannot determine who will do which activity. Such an application of 'rules' would be to "oversocialize" the analysis (Granovetter, 1992, p22)³⁰. However, we can conclude that the deployment of individuals to particular tasks cannot be explained by unitary household models, such as Low's, nor in a Nash-bargaining framework. Although both of these approaches provide important insights - earnings differentials and asymmetric bargaining power within the household are likely to be important determinants of actual labour deployment - neither was verifiable empirically in the West Bengal study localities. Low's model of household labour deployment based on the principle of comparative advantage was untestable because it required proxy prices for unvalorisable activities and because of differential lags in returns to unwaged productive enterprise³¹. Empirical verification of the Nash bargaining framework relied on identification of possibly ambiguous fall-back positions. The capacity to contest and change perceptions of "rules" including gendered roles is ignored in bargaining theory approaches to household labour deployment. Radical feminist models of patriarchy importantly draw attention to the asymmetrical power relations

³⁰An oversocialized "conception of "social influences"... "assumes that people follow customs, habits or norms automatically and unconditionally..." (loc. cit.).

³¹Low did not attempt a formal test of his comparative advantage model. For empirical support he cited evidence from other studies of rural labour in southern Africa which indicated that migration for wage employment was more common among males than females, among young men than old men, and among the relatively highly educated (op. cit., p124).

between men and women. However, such universal models (perhaps inadvertently) obscure the contingency of gender relations. Explanations of patterns of labour deployment require detailed specification of the shifting and interacting ideologies of gender, caste, kinship and generation operating at the household and community levels.

6.4.2 Implications for Understanding i) the Coexistence of Diverse Labour Arrangements and ii) Downwardly Rigid Wages in the Study Localities

This chapter and those preceding it have also shown that the multiplicity of occupations engaged in by labour-selling households need to be accounted for in any attempt to understand the coexistence of diverse labour arrangements. Households with land have greater 'choice' than those without land and, especially in peak cultivation seasons, a higher opportunity cost to hiring out labour. The scale of unwaged productive and reproductive activities undertaken by labour-selling households combines with household size and composition and with ideas of appropriate behaviour to constrain and/or make possible hiring out labour.

The greater degree to which Santals in the Bardhaman locality gathered wild food, for example, helps explain their tendency to enter *chuto* (daily time rate) rather than *bandha* (seasonal beck-and-call) arrangements. Santals' home manufacture and cultivation of diverse crops in the Purulia locality partly

explain their similar capacity to avoid *berhun* (the seasonal credit-labour tie) there³². The relatively light reproductive workload of children, especially boys, and the elderly may account for their engagement in the Purulia locality via *bagal* (grazing) arrangements at very low levels of remuneration.

The commitment of one woman in almost all households to overall responsibility for reproductive work enabled men to hire out via *bandha*³³, *nagare* and *rakhal* arrangements in the Bardhaman locality and via *munish* and *bhatua* arrangements in the Purulia locality. All these arrangements involved prior commitment to work either daily or as required by one employer.

It is implicit in this argument that hired labour arrangements are influenced to some degree at least by patterns of labour supply. It is partly because of the differential levels and types of unwaged productive and reproductive activities of labour-selling household members that individuals' offers of labour diverge. This divergence is one cause of the coexistence of diverse labour arrangements.

A consistent theme running through this thesis has been the greater extent to which individuals from relatively less poor labour-selling households (corresponding in the main to those

³²In chapters three and four, it was suggested that these patterns could be attributed partly to the existence of indigenous mutual insurance schemes among Santals of both study localities.

³³Women as well as men hired out labour via *bandha* arrangements.

with larger landholdings) engage in labour arrangements with higher earnings and/or less commitment to a particular employer. In simple terms, labourers with higher returns from unwaged productive work - often those with larger landholdings - have a higher supply price (or reservation wage) than others³⁴. The third hypothesis in this chapter implied that all labourers' capacities to resist wage cuts were backed up by the output of other productive activities (albeit to differing extents).

Bardhan's model (1983) and Eswaran and Kotwal's (1985) reviewed in Chapter 1 both assumed that 'casual labourers' did not engage in their own cultivation. If this was so, how could they survive in periods of little or no employment? Why do we find employers in the peak season in the Purulia locality moving from labour household to labour household at dusk frantically searching for labourers for the next morning's work; and at the same time members of the same labour households not hiring out? Why do we also find that thousands of days were worked by migrant labourers in the Bardhaman locality in the peak season, together with many members of local labour households not hiring out?

³⁴In earlier chapters, a continuous asset-value variable has been used to rank households by wealth and thus to analyse the behaviour of 'relatively poor' and 'relatively less poor' households. A somewhat cruder distinction between landed and landless labour is useful in this chapter because it enables us to draw conclusions on the effect of ownership or control of cultivable land on the logic of the deployment of labour between paid and unwaged work.

Although the next best alternative may yield lower economic returns, especially in the short run, certain individuals from labour-selling households may 'choose' not to hire out labour power. A primary explanation for this is that some individuals will inevitably be busy with daily and generational reproductive activities. The material reproduction of individuals and households depends on the unwaged labour of some or all household members carrying out tasks such as cooking, child care and homestead maintenance. Poor households are not economically capable of hiring in these services.

Others will be engaged in own cultivation, livestock associated activities, crop processing, home manufacture and gathering food. Nevertheless, even when these activities produce lower output in daily equivalents than employment, unemployment may not be involuntary. Unwaged activities are used by labourers to resist a decline in money wages³⁵.

Although remuneration varies considerably between and within villages and seasons, hired labourers do not generally agree to work for less than an implicitly agreed minimum. In the Bardhaman locality, as we have seen, there was a fairly strictly adhered to "going rate" for daily time rate arrangements (*chuto*), which extended to seasonal 'beck-and-call' arrangements (*bandha*) and even to most migrant labourers

³⁵It is pointed out in the concluding chapter (chapter 7) that the measurement of valorisable returns from unwaged work would have strengthened this part of the argument.

in Kadapur. In Dhanpur migrant earnings varied, but only upwards. In Purulia, on the other hand, a variety of institutionalised rates and forms of payment in daily time rate (*hajira*) arrangements were found to correspond significantly to the type of work, the season, and, particularly in the lean season, to the gender of the labourer. For example, rates for cutting aman paddy did not fall below Rs 10 per day or its kind equivalent in 1991.

Osmani's explanation for what he has termed "implicit cooperation" is based on the theory of non cooperative games (1990). Labour sellers know that should they undercut the implicit floor wage, the floor itself is likely to cave in, and they, as well as other labourers, will suffer from lower pay in the future. However, Osmani's model is restricted by the need for repeated play (in a single period setting, the individual labourer would choose some income rather than no income even if it undercut the wage rate) - and thus to closed labour 'markets'. As we have shown in Chapter 5, our data suggest, on the contrary, that in West Bengal, the livelihoods of poor households in hinterland areas, and the intensive cultivation of rice in irrigated areas, relies on the spatial mobility of rural labourers.

Kapadia's explanation is more convincing (1990; 1992). "Mutuality" exists within certain groups of agricultural labourers, identified by combinations of neighbourhood, caste and gender. The awareness of collective interests, of being some kind of class-in-itself, causes workers to avoid undercutting the going wage. Our evidence suggests downwardly

rigid wages and high participation in unwaged productive activities. It does not enable us to prove that resistance to wage cuts emerges from a sense of mutuality among labourers. However, it is intuitively reasonable to conclude that even if they yield lower daily equivalent earnings than wage employment, the existence of unwaged productive activities is a powerful means for labourers to resist wage cuts.

Theories of wage labour supply need to account for all livelihood alternatives and their respective time frames. It cannot reasonably be assumed that if the daily remuneration of two activities differ, the one with the higher remuneration will be preferred by the labourer.

CHAPTER 7: A NEW AGENDA FOR RESEARCH

In this thesis, I have tried to explain the coexistence of diverse hired labour arrangements in rural West Bengal, including arrangements for seasonally migrant labour. I have used daily records kept by labourers and employers over two seasons in two small localities to capture several measurable components of contractual diversity. In addition, I have analysed the logic of deployment of individuals in labour-selling households to unwaged activities in order to establish the connection between labour arrangements inside the household and the terms and conditions of labour hire.

These analyses have brought out the embeddedness of hired labour arrangements in the structure of landownership and control, in shifting ideologies of gender and caste, in spatial identities and in party political allegiances. 'New institutional economics' (NIE) typically explains 'labour-tying' as a second best efficient solution to imperfect or incomplete 'markets' for information or insurance or to the presence of transaction costs. My review of important NIE theories showed them to be empirically untestable in the strict sense and to be based on very bold assumptions about individual rationality. These theories can, nevertheless, enhance our understanding of contractual complexity, but only if contextualised by proper specification of social and economic structures. Orthodox Marxian explanations setting the coexistence of 'labour-tying' and 'free' labour in the

context of an inevitable and progressive historical transition, motored centrally by class conflict, also offer important insights but are limited by their teleological assumptions and lack of attention to sources of conflict other than class. The sheer diversity of contractual arrangements even within a single village defies such universalist explanations.

Gillian Hart's work on rural Java provided a major source of hypotheses for this thesis. In particular, her finding that labour supply was differentiated according to the material needs of labour-selling households led to the investigations in chapters 3 and 4 of the relationship between household asset values and the likelihood of entering particular types of labour arrangement. I adapted Hart's finding that access to particular arrangements was not equal for all individuals or households supplying labour to the 'market' into the hypothesis that certain labourers excluded themselves from certain activities or labour arrangements. By investigating these supply-oriented hypotheses, the thesis has contributed to the understanding of how poor rural people in one part of India construct their livelihoods.

Both the localities are areas of wet paddy cultivation. The Bardhaman locality, where land is mainly irrigated and produces two to three crops per year, has a sharply skewed distribution of land ownership and control (19 per cent of sampled households controlled 80 per cent of land). In the

Purulia locality, where land is mainly rainfed and produces one crop per year, land ownership and control are skewed to a lesser degree (16 per cent of sampled households owned or controlled 38 per cent of land). Both localities are characterised by 'smallholder' cultivation. It is the medium and large smallholders, cultivating 5 to 25 acres in the Bardhaman locality and 5 to 15 acres in the Purulia locality, who are major local employers. The median landholding in the Bardhaman locality is just over one third of an acre (0.37 acres or 1.1 *bigha*) and in the Purulia locality just over one and a quarter acres (1.27 acres or 3.8 *bigha*).

The structure of landholdings has important consequences for hired labour arrangements in both localities. Many Bardhaman locality households have very little production of their own and rely heavily on income from employment. The seasonality of demand and lack of alternative sources of income causes the poorest households to seek personalised labour arrangements involving advances in the lean season and beck-and-call commitment to employer-creditors (discussed fully in Chapter 3, sections 3.2.7 and 3.3.2). This ties them to particular employers and limits the extent to which they can seek the highest possible earnings (as assumed by conventional economic theory) or sell labour 'freely' to any employer (as suggested by the orthodox Marxian model of capitalism).

In the Purulia locality, where some poor households take *berhun* loans to survive the 'wet' lean season, many have

access to production possibilities of their own. Seasonally tied labour arrangements are much less common than in the Bardhaman locality. However, the poorest labourers pledge one or two days harvest work to a number of different employers in exchange for rice in the 'wet' lean season. Perhaps because of the high levels of implicit interest, these commitments were underreported by both sample employers and sample labourers. It is the prior commitment of the poorest labourers to harvest work below the going rate, and the high reservation wages of labour-sellers with larger landholdings, which explains the positive relation found between a labour-selling household's wealth and its members' participation in relatively lucrative daily piece rate (*thika*) arrangements.

In the Bardhaman locality, the self-exclusion of all caste Hindus and women from Muslim and Bagdi households from hiring out manual labour reflected the association of such labour with low status. In contrast, Santal ideology did not distinguish between the hiring out of labour by men and women. In the Purulia locality caste Hindus, however poor, also refrained from hiring out labour. But unlike in Bardhaman there was no self-exclusion on the basis of gender ideology by women from Muslim or 'untouchable' households. Women and men from Muslim and Bhuinya as well as Bhumij and Santal households all hired out labour. The gender division of activities was, however, much more pronounced than in the Bardhaman locality, with, for example, all transplanting carried out by women.

Analyses of variations in earnings and other measurable aspects of remuneration *within* each type of labour arrangement support the argument that the terms and conditions of labour hire are embedded in social and economic structures. Occupying a very low position in the land-holding structure caused the dependence of one household in the Bardhaman locality on a particular employer-creditor, who also provided that household's homestead. On several occasions, despite working for seven hours, members of that household received just half of the going daily rate of Rs 12 and 2 kg of hulled rice. Incidences of half pay were also recorded for two women (both widows, one a Muslim and one a Bagdi) who hired out labour in spite of the interacting gender and caste ideologies opposed to women of these *jati* entering employment.

In the Purulia locality, where variations in earnings in daily time rate arrangements were wide (1-5 kg hulled rice equivalent), higher than modal earnings (ie over 2 kg of rice in the lean season and over 3 kg in the peak season) were not accessed by labourers in the lowest asset class. Workers of Bhuinya and Santal *jati* gained access to a disproportionately high share of higher than modal payments. Both groups regarded themselves as labour aristocracy (a view shared by employers). Moreover, the Santal *jati* households, consistent with their history of communitarian social organisation and preference for autonomy from other *jati*, financed lean season subsistence loans through an indigenous mutual insurance

scheme. Bhuinya households maintained close party political connections with the biggest employer in the locality.

Although the emphasis of this thesis has been on the social and economic embeddedness of hired labour arrangements, the analysis of intra-contractual variation showed remuneration for daily time rate arrangements to be sensitive to a certain extent (more in the Purulia than in the Bardhaman locality) to seasonal fluctuations in quantities of labour supplied and demanded. The shortage of labour in the peak season in the Purulia locality was associated with a significantly higher level of mean daily earnings and a convergence of gender differentials. In the Bardhaman locality, the earnings of all labourers converged around the modal range in the peak season. However, as longer hours were worked, effective wages (ie earnings per hour) were lower than in the lean season.

In no instance did the findings *conflict with* 'new institutional economics' rationales for the existence of particular types of hired labour arrangement. In some cases NIE rationales added to the 'embeddedness' explanations central to the thesis. Piece rate contracts, whether arranged with individual labourers, as in the Purulia locality, or with gangs of labourers, as in the Bardhaman locality, could be seen as the provision of an incentive to increased effort and thus decreased employers' supervision costs. Supervision costs are likely to be relatively high in West Bengal because of the **fragmentation** of landholdings. Personalised labour

arrangements (often based on seasonal credit-labour ties) may be used by employers as alternative mechanisms (to daily piece rate contracts) for reducing such costs. Seasonal-tying arrangements, particularly common in the Bardhaman locality, also reflect risk-sharing by workers (fearing lean season under consumption) and employers (anticipating peak season labour shortages and consequently high recruitment costs).

The findings did (unsurprisingly given the necessary degree of abstraction in model-building) contradict some of the NIE theories' assumptions. For example type of arrangement was found not to correspond neatly in the study localities to type of activity. Such a correspondence had been assumed by Eswaran and Kotwal in their model of a two-tier labour market with risk-sharing and incentives (see 1.2.3). But our project did not aim to test the theories formally, partly because they are, in the main, empirically untestable.

In Chapter 5, I examined the seasonal migration of agricultural labourers, which links the areas of which the study localities are to some extent representative. Four times per year large numbers of 'adivasi', Muslim and 'untouchable' labourers migrate for work to areas of intensive paddy cultivation in Bardhaman and Hugli districts of West Bengal. The migration reflects high spatial earnings differentials, but variations in types of labour arrangement between source localities are associated with the tendency of gangs (*dol*) from specific areas to migrate in certain seasons.

More research is required into locally-specific labour arrangements in the source areas, which are situated in districts along the West Bengal-Bihar border and in the north of West Bengal state.

The evidence from the Purulia locality, a source locality, suggests that the migration is embedded in land-holding structure - individuals from households with the least land are the most likely to migrate - and associated with household demographic composition - the larger the absolute number of dependents in a household, the less likely individuals from that household are to migrate.

The organisation of migration varied according to *jati* and *para*. Among migrants, those from the poorest households migrated out of need, while others were able to invest their remittances.

The evidence suggests that local labourer-employer relations are strongly influenced by seasonal migration in both source and destination areas. As the *aman* paddy production cycle is similar in both areas, migration for the transplanting or harvesting of this crop competes with the supply of labour to cultivators in the source area. The degree to which this can lead to conflict is evident from the confrontation between Bardhaman employers and employers from a locality neighbouring the Purulia study locality. In the latter, the possibility of migration by local labourers increased employers' need to

guarantee peak season labour supply either via *berhun* loans or by appealing to historical obligations (backed up by the implicit threat of withdrawal of lean season loans). In the Bardhaman locality, the increase in labour supply strengthened employers' bargaining power as did the associated segmentation of the labour force on the basis of *jati* and place of origin. Migrant labourers themselves were effectively controlled via arrears payments and their lack of legal redress.

In Chapter 6, the logic of deployment of labour within the household was found to be embedded in ideas of appropriate gender, age and kinship roles at the household level differentiated by household demographic composition and, at the locality level, by wealth and *jati*. Women in both localities and across social groups were socialised from an early age into 'responsibility' for unwaged daily reproductive work, and, even when not hiring out labour, carried a triple burden of unwaged daily and generational reproductive work and unwaged productive work, such as gathering, home manufacturing and crop processing. A crucial determinant of women's workloads was the number of able-bodied females in a household. The spatial constraints on women's activities differed between the study localities, and by *jati* and kinship relation. Gender ideologies could also adversely affect the microeconomic activities of men unable to fulfil their gender 'roles'. The evidence thus supported the view that gender relations were spatially contingent.

Chapter 6 also showed that the deployment of labour to unwaged reproductive and productive work has important consequences for hired labour arrangements. Individuals' offers of labour diverged partly because of the differential levels and types of unwaged productive and reproductive activities engaged in by labour-selling households. Part of the labour time of some individuals was necessarily taken up by daily and generational reproductive activities. In the proportion of the remaining time spent in productive activities, they and others 'chose' combinations of unwaged and paid productive work. A key distinction could be made here between landed households, which could 'choose' to engage in their own cultivation, and landless households, which could not. However, the 'choice' was not simply a matter of which productive activity yielded higher returns. Even when returns to unwaged work are lower than those to paid work, the former may be 'chosen' as a means of resisting cuts in levels of remuneration.

It is clear with hindsight that measurement of the value of returns from unwaged work¹ would have enriched and strengthened the argument of this part of the thesis. Moreover, the analysis presented here was based on a uniform assumption about decision-making within households². Had the resources been available to study decision-making, the implications for hired labour arrangements of conflicts of

¹Wherever measurement was possible; as explained in chapter six, some activities are unvalorisable.

²It was assumed that individuals in labour-selling households identified their own well-being with that of their household.

interest between household members and the asymmetrical distribution of power within the household could have been investigated. Lack of resources also meant that it was necessary to ignore the question of how the division of labour within employer households influenced arrangements for hiring in labour.

The thesis as a whole has raised important questions about the 'facts' surrounding rural labour arrangements in India. The great diversity between and within hired labour arrangements and between villages strongly suggests that stylised notions of 'casual' and 'permanent' contracts are of limited use in understanding local labour exchange processes. The common practice of hiring out via more than one arrangement type and the extent of occupational multiplicity suggest that it is inadequate to classify the occupation of an individual by a single type of labour arrangement. Furthermore, the existence of a single 'wage rate' even in a particular village is a myth. Effective wages vary widely and are often well below the levels prescribed by minimum wage laws³.

The next step in a study of contractual diversity would be to analyse the causes of contractual change. Hart showed for rural Java that changes in labour arrangements could not be

³Since 1948, the Government of India has required state governments to declare a statutory minimum wage. Raising the level of minimum wages has been an important component of the agrarian policy of the West Bengal state government since the early 1980s (Bhattacharyya, 1993, p146). Sampled labourers in the Purulia locality reported official wage rates for road-building and forestry work as Rs 19 to Rs 24 in 1991-92. These figures are close indications of the prevailing minimum wage, which is normally paid on public works schemes.

explained by technological and demographic variables alone but were also related to macro level economic and political processes and events (1986a).

Here, I have followed Hart's *doctoral thesis* (1978) to the extent that I have focused on the question of whether variations in rural labour arrangements can be explained by existing economic models. I have not, however, attempted to analyse changes or continuities because lack of data on types of labour arrangements existing in earlier periods. During interviews, informants were often asked to describe such changes historically, but without a methodology for ensuring a consistent periodicity, most responses were unusable here. This study can nevertheless be used as the foundation for others' studies of change. In future research, changes in contractual arrangements for hired labour and their interaction with macro level economic and political changes in West Bengal need to be addressed.

The remainder of this chapter briefly describes recent macro level developments in West Bengal and constructs a general hypothesis regarding their effect on hired labour arrangements. However, it is argued that more and better data are required on trends in employment and in remuneration before the hypothesis can be usefully examined.

In the late 1960s, during two spells of coalition government led by the Communist Party of India (Marxist) (CPI(M)), the

seizure of plots of land belonging to large landowners by landless labourers and poor peasants in parts of West Bengal took place with relative impunity. Despite the repression under the Congress (I) regime which followed, large landowners were put on the defensive (Acharya, 1993, p1082) and agrarian reforms, particularly land distribution, continued. In the 1977 elections an absolute majority of seats to the state assembly were won by the CPI(M), who have since been reelected three times and remain in power at the head of the coalition Left Front Government (LFG). Along with a policy of continuing the redistribution of vested land, the LFG pursued the registration of sharecroppers (via its Operation Barga) and introduced five-yearly elections to local councils with three tiers (Gram Panchayat (covering about ten villages), Panchayat Samiti (covering an area equivalent to that administered by the development block) and Zilla Parishad (district council)). Unlike in other Indian states, these elections were contested at all three levels on political party tickets.

None of these policies contradicted earlier central government legislation. Indeed, following the dismissal of the first communist-led state government in Kerala in the late 1950s, the LFG could justifiably claim that more radical policies in tune with their Marxist-Leninist rhetoric (such as collectivisation of agriculture) would have provided the central government with an excuse to impose President's rule. In the initial period of LFG rule, agrarian reforms were

vigorously implemented in marked contrast to other parts of the country. Although the distribution of vested land and the registration of share-croppers ran out of steam, there has been no turning back on the 'democratisation' of the panchayats (or Panchayati Raj)⁴. There has also been rapid employment-intensive growth in agricultural output in parts of the state in the late 1980s (Economic and Political Weekly, 1993), and an associated growth in auxiliary industries such as processing (of paddy) and storage (of potatoes). These macro and meso level economic changes are only now beginning to be documented (see B. Harriss, 1993b and Chandrasekhar, 1993).

The ruling party in West Bengal commands wide support in the countryside. The CPI(M) has presided over the growing power of the new agrarian bourgeoisie, the 'rich' and 'middle' peasants, who have, since the effective implementation of land reforms, become one of the most powerful political forces in contemporary India. In West Bengal, as in northern India, the new bourgeoisie is closely associated (if not synonymous) with Hindus of the castes officially referred to as 'Other Backward Castes'⁵ (to distinguish them from the formerly 'untouchable'

⁴Opinions vary, however, on the motivations for and spread of benefits from these rural reforms ranging from the pro-LFG polemic of Lieten (1992), via the sympathetically critical (Webster, 1990; Bhattacharyya, 1993) to outright hostility (Mallick, 1993). Dipankar Bhattacharya (1993) cites a recent report by former civil servants Debabrata Bandyopadhyay and Nirmal Mukerji, which notes that seventy-five per cent of land redistribution in West Bengal occurred before the Left Front Government took office (p1492).

⁵or, as in this thesis, just 'backward castes'.

Scheduled Castes). Yet agricultural labourers have continued to vote for the CPI(M).

The understanding of the process of labour exchange at the village level, to which the present study makes a small contribution, will enable us to evaluate the effects of the LFG's agrarian reforms and the wider national economic restructuring, which began in 1991, on rural social and economic relations.

In both the study localities economic and political power were concentrated among a few of the richest households⁶. In the Purulia locality, L, the largest landowner in the sample was also a secondary school-teacher and the highest ranking CPI(M) cadre in the Gram Panchayat. N's son, T, in the Bardhaman locality was also the highest ranking CPI(M) cadre in the Panchayat (and former Pradhan) and N was one of the largest landowners in the sample. Two of N's other sons had prestigious government service jobs. It is widely alleged that access to salaried government jobs among the rural population of West Bengal is greatly eased by connections with and loyalty to the ruling party. Income from such jobs allows party cadre more time for politics - a joint family structure can also ease responsibility for agriculture. A major hypothesis must therefore be that competition for local

⁶Dwaipayan Bhattacharyya argues that this concentration of power is a widespread phenomenon in West Bengal (1993, pp25-27).

political power causes employer-politicians to offer labourer-voters more lucrative contractual arrangements.

Caution is required here, however. Identity of interest between middle/rich peasants and the CPI(M) in West Bengal should not be taken as given. The enormous successes of the CPI(M) in the polls at all levels in the state reflect the political success of their 'peasant unity' line in preventing class contradictions between employers and workers from dominating political consciousness⁷. Thus former zamindars (now with diversified "mercantile-financial-industrial portfolios" (B. Harriss, 1993b, p90)) are portrayed as the class enemy and all other sections of the rural population are encouraged to unite in struggling both for better input-output price ratios for cultivators and for higher wages for labourers.

Before examination of the link between local 'democratisation' and contractual arrangements can proceed further, more data are required on trends in employment, wages and contracts in the state. It seems very likely given the labour intensive character of paddy cultivation in West Bengal (especially in transplanting and harvesting) that the increases in output that took place with the expansion of private groundwater

⁷Although Dipankar Bhattacharya suggests that following the campaign of a number of agricultural labourers in one village of Bardhaman district during the 1993 panchayat elections and the subsequent murder of 5 of them, 'peasant unity' in West Bengal is rapidly fraying at the edges (1993, pp1493-4).

irrigation in the 1980s⁸ were associated with increased employment. Indeed in chapter 5 I asserted this to be the case without qualification. However, one of the few published studies of changes at the micro level during the 1980s shows a lower number of days' employment in 1991 than in 1982 in one village in Birbhum district (J.Harriss, 1993, p1243). My evidence on the extent of seasonal labour migration in the state suggests that even if an increase in the number of days of employment per capita per annum has taken place in the intensively farmed districts, the labourers resident in those districts have not necessarily benefitted.

Trends in wages are equally unclear. While Dwaipayan Bhattacharyya concludes on the basis of early indications only that real agricultural wages did not increase during the 15 years 1977-92 (1993, p247), Lieten's time series of wages from 1981-1990 taken from his village study suggests that they have increased (1992, p51). Based on analysis of Agricultural Wages in India data collected for West Bengal by the Socio-Economic Evaluation Branch of the Department of Agriculture, Kynch (1991) also found that real wages in daily time rate arrangements for West Bengal as a whole had increased between 1977 and 1987.

In this thesis I have demonstrated the importance of understanding the terms and conditions of locally specific

⁸The number of shallow tubewells in West Bengal increased from 155,000 in 1981 to 340,000 in 1988 (Bureau of Applied Economics and Statistics, Government of West Bengal, 1988).

hired labour arrangements in assessing changes in remuneration. Elsewhere I have shown that ambiguity over the definition of stylised terms such as 'attached labour' prevents the identification of clear trends in the incidence of contract types (Rogaly, 1993). It is no wonder that contradictory trends have emerged from studies of contractual change. Van Schendel and Faraizi, for example, identify a continuity in the increasing proportion of casual labourers in Bengal as a whole in the hundred years to 1980. Others, such as Bardhan (1984, p78) use cross-sectional studies indicating a greater proportion of 'tied labour' in agriculturally more advanced villages to suggest that in the 1970s at least, there was an opposing trend.

Because of the doubt that therefore continues to exist regarding the direction of the movement of real wages (and even employment) and problems with measuring those trends because of insufficiently detailed knowledge of contractual arrangements and the extent of seasonal migration, it is not within the scope of this thesis to follow through Hart's framework of analysis and seek to link the emergence, persistence and/or disappearance of particular arrangement types with macro political and economic changes under the Left Front Government. Hart's evidence that contractual change was not unilinear but depended on macro level events rested largely on estimating the relative incidence of a specific contract type - *kedokan* - during different time periods. It

is not yet possible to track the historical and spatial incidence of specific labour arrangements in West Bengal.

However, the limited information available on the history of agricultural labour strikes since 1977 does suggest that the degree to which the CPI(M) controls the earnings negotiation process in a village systematically affects the way remuneration changes. In the strongly CPI(M) supporting Kadapur village in the Bardhaman locality, strikes for higher levels of earnings were routine. They would be organised by the Kisan Sabha in consultation with the CPI(M), after the new rate of earnings had been brokered by party cadre. Dwaipayan Bhattacharyya has termed this the "ritualistic practice of the strike" (1993, p227). The question he poses, but does not answer, still remains. Is the rate brokered by the party and employers behind the backs of the labourers? (op. cit., p224). In other words, who represents the labourers if their union is led by their employers⁹?

Such questions do not have to be asked in some villages, where strikes are clearly for real. One such strike occurred in the villages of Akashpur and Santipur near the Purulia locality. Here, although the CPI(M) is in power, there is strong support for the Congress (I) party in the Kayastha para. In contrast to the Goala cultivators in the study locality, the Kayasthas' caste ideology prevents them from taking part in manual work.

⁹This is generally the case in West Bengal, where by far the biggest peasant union, the CPI(M)-affiliated Kisan Sabha, 'represents' both agricultural labourers and employers.

When labourers with historical ties to the Kayastha went on strike for higher pay during the *aman* transplanting of 1991, the employers implemented prior agreements with sympathetic employers in neighbouring villages to prevent the striking labourers from finding other employment nearby, and organised transplanting gangs of young Kayastha men to carry out the work. Eventually the Pradhan and a leading CPI(M) cadre brokered an increase from 4.5 to 5 ser of paddy per day.

Singha Ray's book based on fieldwork in four West Bengal villages in 1985-86 also describes two kinds of strike. One kind, such as took place in the village of Panpara in Hugli district during the *aman* transplanting seasons of 1985 and 1986, was "neither spontaneous nor total" (1992, p90). The wage was raised from Rs 5 + 2 kg hulled rice per day to Rs 5.5 + 2 kg against a 'demand' for the (higher) official minimum wage. The strike was organised by CPI(M) cadre. On the other hand, when the women of Gofanagar village (in West Dinajpur district) struck in the harvest of December 1984, they demanded Rs 5 and a fixed working day of 8 hours. The harvest continued, however, as men, migrants and neighbouring villagers hired out labour. The men of Gofanagar also came out after two days, objecting to the use of outside labourers. Women's wages increased from Rs 1 + 3.5 ser paddy to Rs 2 + 3.5 ser paddy. However, in the following season, employers withdrew lean season loans in retaliation (op. cit., pp107-109). Given the employers' response in Gofanagar, both in continuing work during the strike and in implementing

sanctions against the labourers the next year, this strike was probably 'real'.

The fundamental distinction between 'ritualistic' and 'real' strikes suggests a dichotomy between localities where the CPI(M)'s behind the scenes brokering of payment levels has been widely accepted and those where class conflict remains explicit. In the Bardhaman locality, where 'ritualistic' strikes were the norm, levels of remuneration were managed by the CPI(M) (ostensibly on behalf of both labourers and employers, but never against employers' interests) with an eye to the party political consequences.

This thesis has thus set a new agenda for research. If the coexistence of diverse labour arrangements in rural India is to be explained, more, careful micro studies are required, so that a typology of socio-economic, political and agroecological contexts can be developed. The supply of hired labour is not only contingent on wealth, demographic factors, and ideologies of caste and gender but also on the construction of 'appropriate' roles within the household and on solidarity mechanisms or lack of them among specific groups of labourers. An investigation of the relation between agrarian structure and agricultural growth in West Bengal also requires more data on the extent of and trends in seasonal rural-rural migration.

APPENDIX ONE: DAILY RECORD PROFORMAE, BASE LINE SURVEY QUESTIONNAIRES AND ASSET CHECKLISTS

The daily record proformae (translated from the Bengali) are reproduced below:

Employer Records
Household number:
Para:
Respondent:
Date:

Labourer's name	Labourer 1			Labourer 2		
	Age	Sex	Para	Age	Sex	Para
Type of work						
Start time						
Finish time						
Break						
Cash payment						
Kind payment						
Food payment						
Other payment						
Arrangement type						
Place of work						

Notes: Each employer record form had space for five labourers and several employers required more than one form per day at bust times.

APPENDIX ONE (cont'd)

Labourers Records:

Part a)

Household number:

Para:

Respondent:

Date:

Labourer's name		
Type of work		
Start time		
Finish time		
Break		
Cash payment		
Kind payment		
Food payment		
Other payment		
Place of work		
Employer's name		
Employer's para		

Part b)

Exchange:

	Item	Number	Payment
Sales			
Purchases			

	Form of loan	Cash value
Loans taken		
Loans given		
Repayments given		
Repayments rcvd		

APPENDIX ONE (cont'd)

Baseline Survey Proforma:

Household number:
Village and para:
Name of Informant:
Date:

Land:

Plots	1	2	3	4	5
Size					
Topography					
Crops/seasons					
Irrigation					
Tenurial status					

Net land controlled:

Ponds (including share of ownership):

APPENDIX ONE (cont'd)**Non-land assets (Bardhaman locality):**

AGRICULTURAL IMPLEMENTS	No	Val
Tractor		
Pumpset		
Manual thresher		
Sprayer		
Scythe		
Spade		
LIVESTOCK (OWN)		
Draft ox		
Draft buffalo		
Milch cows		
Milch buffalo		
Goat		
Pig		
Cock		
Hen		
Duck		
OTHER ASSETS	No	Val
Television		
Bicycle		
Radio		
Bullock cart		
Wooden cot		
Fishing net		
Brass water pot		

Note: Share-reared livestock were also included at half the value of owned stock

APPENDIX ONE (cont'd)

Non land assets (Purulia locality):

AGRICULTURAL IMPLEMENTS	No	Val
Diesel pump		
Plough		
Kurul		
Moi		
Manual Thresher		
Sprayer		
Scythe		
Pickaxe		
Axe		
Shovel		
LIVESTOCK (OWN)		
Draft ox		
Draft buffalo		
Milch cows		
Milch buffalo		
Goat		
Pig		
Cock		
Hen		
Duck		
OTHER ASSETS	No	Val
Bicycle		
Dhenki		
Radio		
Bullock cart		
Wooden cot		
Brass water pot		

Notes: Kurul is a draft-powered land levelling implement.
Moi is a draft-powered flat board for fine tuning the level of a ploughed paddy field before transplanting.
Share-reared livestock were also included at half the value of owned stock.

APPENDIX ONE (cont'd)

Demographic information on individual household members:

Name		
Age		
Sex		
Relation to household head		
Formal education		
Pregnant? (months)		
Lactating? (months)		
Illness (specify)		
Years resident in village		
Former village of residence		
Non-ag sources of income		
Gross non-ag income		
Benefits from government anti-poverty schemes (employment, credit, etc).		

Details of remittances to the household from non-resident individuals:

APPENDIX TWO: WEEKLY RICE PRICES IN THE TWO STUDY LOCALITIES

Purulia locality:

Lean season

Date	Rupees per kilogramme
11/08/91	5.00
18/08/91	5.00
25/08/91	5.00
01/09/91	5.00
08/09/91	5.00
15/09/91	5.00

Peak season

Date	Rupees per kilogramme
10/11/91	4.30
17/11/91	4.30
24/11/91	4.30
04/12/91	4.00
08/12/91	4.00
15/12/91	4.00
22/12/91	4.00
29/12/91	4.50

Bardhaman locality:

Lean season

Date	Rupees per kilogramme
15/08/91	5.50
22/08/91	5.70
29/08/91	5.70
05/09/91	5.70
12/09/91	6.00
19/09/91	6.00

Peak season

Date	Rupees per kilogramme
07/11/91	4.50
14/11/91	4.50
21/11/91	4.80
05/12/91	4.50
12/12/91	4.50
19/12/91	4.80
26/12/91	4.80
31/12/91	4.80

Note:

These data are averages of prices collected weekly from three small retail shops in each locality. Shopkeepers were asked for the price of the cheapest variety currently on the market (though not of the even cheaper broken rice), as it was assumed that this would be purchased by most labour-selling households.

APPENDIX THREE: LOGISTIC REGRESSION

In logistic regression the dependent variable is dichotomous, with values 0 and 1. The odds of an event occurring are defined as the ratio of the probability of the event occurring to the probability that it will not. The coefficients are directly related to the log of the odds of the event. Thus

$$\log (\text{Prob} (\text{event})/\text{Prob} (\text{no event})) = B_0 + B_1X_1 + B_2X_2 + \dots + B_pX_p$$

The logistic coefficient can be interpreted as the change in the log odds associated with a one-unit change in the independent variable. It follows that the relationship between the coefficients and the odds can be expressed as

$$\begin{aligned}\text{Prob} (\text{event})/ \text{Prob} (\text{no event}) &= e^{B_0 + B_1X_1 + B_2X_2 + \dots + B_pX_p} \\ &= e^{B_0}e^{B_1X_1}e^{B_2X_2} \dots e^{B_pX_p}\end{aligned}$$

Now e raised to the power B_i is the factor by which the odds change when the i th independent variables increases by one unit. If $B_i > 0$ it follows that $e^{B_i} > 1$ and thus the odds would increase following a unit increase in the independent variable.

If $B_i < 0$ it follows that $e^{B_i} < 1$ and thus the odds would decrease following a unit increase in the independent variable. The $\text{Exp} (B)$ value in the result tables thus indicates the magnitude of a change in the odds of the event occurring following a one unit increase in the independent variable. To test that a particular coefficient is significantly different from 0, the Wald statistic is calculated (as the square of the ratio of the coefficient (B) to its standard error). The level of statistical significance of the Wald statistic is indicated by the Sig value. If $\text{Sig} < 0.05$, for example the coefficient is significantly different from 0 at the 5 per cent level. The R statistic indicates the partial correlation between the dependent variable and each of the independent variables.

The goodness-of-fit statistic is used to test how well the model fits. It compares the observed probabilities to those predicted by the model. This statistic is calculated by the formula

$$Z^2 = \text{the sum of } (\text{Residual}_i^2 / P_i(1-P_i))$$

where the residual is the difference between the observed value, Y_i , and the predicted value, P_i . This statistic has a chi-square distribution. Thus a large observed significance level would indicate that we could not reject the hypothesis that the model fits. (Adapted from SPSS Advanced Statistics Manual).

APPENDIX FOUR: ACTIVITY ANALYSIS - CATEGORIES OF WORK, ACTIVITIES AND CODES

A GENERATIONAL REPRODUCTIVE ACTIVITIES:

Activity:	Abbreviation:
breast feeding	breast feed
child minding	child mind
bathing child	child bathe
home study	study
helping another household member with studies	help study
school study	study
clean child	clean child
attend tuition	study (tutor)

B DAILY REPRODUCTIVE ACTIVITIES:

Activity:	Abbreviation:
fetching water	fetch water
shopping for food	shop
preparing food (for self and/or other household members)	cook
serving food	serve food
washing cooking and/or eating utensils	wash up
making gobar cakes for fuel	gobar cakes
sweeping/cleaning home	sweep
spreading new layer of gobar on the floor	spread gobar
cleaning out livestock quarters	clean shed
mending clothes	mend clothes
gather fuel (wood, leaves)	gather fuel
chop wood	chop wood
wash clothes	wash clothes
light hearth	light hearth
grind rice	grind rice
cook sweetmeats/other festive foods	cook spcl
dry clothes	dry clothes
hull rice by machine	machine hull
take loan	take loan
tie stock	tie stock
untie stock	untie stock
homestead maintenance	homestead maint
make tea	make tea

APPENDIX FOUR (cont'd)

C PRODUCTIVE ACTIVITIES (PAID):

Activity:

hiring out of labour power
against payment (specify the
type of work and employer)

Abbreviation:

Types of Work:

cutting potatoes up for planting
cart fertilizer/other goods
from market
weeding
cut paddy
transport cut crop from
field to homestead/threshing
ground of employer
ploughing
move pumpset to riverside
irrigation
spread fertilizer
spread gobar on threshing floor
cut straw
manual earthwork (eg make al)
dry paddy
clean livestock quarters
bathing livestock
sweep employer's threshing ground
bind paddy
cut leaves from date palms
building work
load paddy into cart

seed prep

cart fert/goods

weed

cut paddy

cart paddy

plough

move pump

irrigate

spread fert

spread gobar

fodder prep

man earthwork

dry paddy

clean shed

bathe stock

sweep yard

bind paddy

cut palm

building

load paddy

APPENDIX FOUR (cont'd)

D PRODUCTIVE ACTIVITIES (UNWAGED):

feed own poultry	feed pltry
processing own crops (in/near homestead)	crop proc
preparation of fodder for own livestock (includes cutting grass or straw)	fodder prep
feeding own livestock	feed stock
bathing own livestock	bathe stock
grazing own livestock	graze stock
milking own livestock	milk stock
making garments, embroidery also ason	make clothes
making chatai from palm leaves/	
making straw mats	make mat
making sal leaf plates for sale/sell them	make plates/sell plates
making a broom/ rope	make broom/ rope
fishing	fish
make fishing net	make net
crop processing (mill)	husk mill
collect wages	
(initial of worker who earned them)	coll wage ()
gleaning	gleaning
build shed	build shed
grind maize	grind maize
buy potato seeds	buy pot seeds
store sack of paddy in room	store paddy
stack straw into palui	stack straw
soak paddy	soak paddy
beg for greens	beg greens
gather food/wild greens/kachu/rats/ snails/bird	coll greens/kachu/rats/ snails/bird
parboil paddy	parboil
Own Farm Work in Fields (specify activity)	
Types of activity:	
check up on crop	check crop
holding water in field/	
water catchment	water catch
guarding crop	crop guard
thresh paddy	thresh paddy
hull paddy	hull paddy
cut paddy/jute	cut paddy/jute
carry crop	carry crop
bind paddy	bind paddy
weed	weed
spray pesticide	spray pestcd
irrigate	irrigate
stacking cut paddy	stack paddy
sow boro paddy	sow boro
plant potatoes	plant pots
plant vegetables	plant veg
make fence in vegetable field	fence field
tend vegetable plot	tend veg

APPENDIX FOUR (cont'd)

5 OTHER

Activity:

singing
acting
playing cards
prayer
watch tv/video
attend political party or other meeting
listen to radio
travel
life-cycle ceremony participation
serving at life-cycle ceremony
listening of watching live performance
in locality
play
attend literacy class
practice simple writing
visit a puja/festival outside village
play football
watch football
listen to cassette music

Abbreviation:

sing
act
play cards
prayer
tv/video
meeting
radio
travel
ceremony
sewa

kirtan
play
lit class
write name
puja
football
watch f'ball
play tape

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