

Chapter - II

METHODOLOGY AND DATABASE

As has been mentioned in the previous chapter, the empirical database of the study is a result of an extensive survey carried out in 36 villages in plains of Bihar. These villages were covered in the earlier ILO-ANSISS study, carried out during early 1980s. The present study took up the same villages, as the broad objective of the study is to see the change in rural poverty and employment. However, the strategy of the present study differs from earlier one in many ways, as the concepts of the questionnaires are different. While in the earlier study only 12 villages were covered in depth, the present study has collected the detailed household data for all the 36 villages. In fact, apart from community level data and household level data, Participatory Rural Appraisal (PRA) were also carried out in these 36 villages. This chapter provides a detailed description of the methodology used in this study in the background of earlier ILO-ANSISS study.

The Sample and Survey Design

Selection of Survey Villages

In the previous survey undertaken by ILO-ANSISS in early eighties pure random technique was not used for two reasons. They are ; i) Rural Bihar is very heterogeneous – socially, economically and technologically; ii) Village was chosen as unit of survey since most important social and economic relationships of households operate at village level. If five or six households are chosen in a village, as in case of large surveys, their dimension is lost. But concentrating survey on small number of villages also imply loss of statistical reliability for the region as a whole.

To tackle this problem a mixed strategy was adopted by combining random and purposive techniques. It was done at different stages. First, twenty-four districts, according to 1981 census, from North and South Plains of Bihar were categorised in six clusters using a cluster analysis. The districts of Bihar Plateau did not constitute the group of districts for the cluster analysis because of their distinct socio-economic characteristics. The clustering of the districts from North and South Plains of Bihar was

done on the basis of differentiation across districts in terms of seven indicators. These were – i) population growth, ii) population density, iii) urbanisation, iv) tenancy, v) cropping intensity, vi) use of high-yielding varieties (HYV) of paddy, and vii) tubewell cultivation. Second, one district from each cluster was chosen with probability proportional to 1971 rural population. Selected districts were Nalanda, Rohtas, Gopalganj, Gaya, Madhubani and Purnea. Third, within each district, the reference unit was community development block. According to 1971 census, the selected six districts contained 114 blocks. Blocks were excluded if a) they fell outside the frame of reference of the study (i.e. hilly, forested tracks) or b) they deviate markedly from the mean of each district cluster in which they are located and they were closer to the mean of a different district cluster. In the end, 78 blocks remained and three blocks from each of the six districts with probability proportional to the rural population were selected randomly. Fourth, the purpose was to choose economic village in the sense that labour market, credit market and land ownership are largely internal and geographical integrity exists. In order to deal with this problem, villages with population less than 200 in 1971, with population over 5,000 and with more than one-third of workers in non-agricultural activities (semi-urban) were excluded. Remaining villages were stratified into two size groups on the basis of 1971 population size and in each block one small village and one large village was randomly selected. Visits were then undertaken to examine whether the selected villages fulfilled the requirement of economic village¹ and they were changed in case of non conformity.

Coverage of Previous Survey

Community level data were collected from these 36 villages. Because of resource constraint household survey was undertaken only in twelve out of these 36 villages, one in each size group from each cluster. Villages closer to the cluster mean in each size group were selected. It was done on the same line as in the block level analysis, but in terms of measures of agricultural development, tenancy, the incidence of wage labour and population density.

A census of 2,533 households in the 12 sample villages was undertaken in the household survey during August-October 1981. Subsequently, detailed surveys of around 600 households from these twelve villages were conducted during 1981-83.

The Present Survey

The present survey is not limited only to North and South Bihar Plains. It includes the villages of Bihar Plateau as well. The villages chosen in districts of North and South Bihar Plains are same as the previous ANSISS-ILO study, but the basis of clustering in Bihar Plateau is different owing to different socio-economic characteristics of the region. The clustering of the districts in Bihar Plateau is done on the basis of six variables: i) forest coverage (1991-92); ii) ratio of ST population to total population (1991); iii) incidence of urbanisation (1991) (measured in terms of percentage of population living in notified urban areas), iv) population growth rate (1981-91), v) yield of paddy (1988-91), and vi) ratio of net irrigated area to gross cropped area (1991-92). On these bases three districts viz. Dumka, Gumla, and Palamau were selected for the purpose of the study (the details of the cluster analysis of the region and criteria for selection of blocks and villages is given in Report on Bihar Plateau which is in separate volume).

This survey has been undertaken in different rounds. The coverage was more than the previous survey.

The First Round: The survey was undertaken in 48 villages containing 36 villages of previous survey from Bihar plain and 12 villages from Bihar plateau. The community level survey and participatory rural appraisal (PRA) were undertaken in all the 48 villages. However, for household survey we divided the villages into two categories:

- i) Census villages: 12 villages in which household census was undertaken. It covered 3906 households and was carried out during May-July 1998. Two villages each from three districts of south plain (Nalanda, Rohtas and Gaya) and three districts of north plain (Gopalganj, Madhubani and Purnea) have been selected for conducting this census. Villages selected are the same as was done in the ANSISS-ILO household survey undertaken in early eighties. The details of 12 census villages are given below:

Sl. No	District	Block	Village	No. Of Households
1.	Nalanda	Hilsa	Chandkura	296
2.	Nalanda	Rahui	Mohiuddinpur	96
3.	Rohtas	Dinara	Samhutibuzurg	262
4.	Rohtas	Nasriganj	Amarhi	153
5.	Gaya	Tekari	Alalpur-Bishunpur	148
6.	Gaya	Tekari	Salempur-Rupaspur	331
7.	Gopalganj	Kuchaikote	Paharpur Dayal	62
8.	Gopalganj	Uckagaon	Dewanparsa	192
9.	Madhubani	Madhepur	Mahisam	714
10.	Madhubani	Pandaul	Khangaon	470
11.	Purnea	Banmankhi	Belabadan	283
12.	Purnea	Araria	Jitwarpur	896

- ii) Sample villages: a sample survey of households was conducted in 24 villages of North and South Bihar Plains (same districts) and 12 villages in Bihar Plateau (two villages from each block and two blocks from each districts). For smaller villages every fourth and for bigger villages every fifth household was surveyed on random basis. The sample surveys covered 2245 households covering 1813 households from 24 villages of Bihar plain and 432 households from 12 villages of Bihar plateau. It was carried out during May-October 1998.

The main objective of the first round of household survey was to determine general population characteristics and to provide a sampling frame for the selection of households for more detailed second and third rounds of survey. Apart from identification of household members and their occupations, questions included were on religion, caste, educational and marital status, duration of residence, infant mortality, land ownership, tenancy, wage labour, assets, debts and working of various government sponsored programmes.

The questionnaire was specifically designed to permit a class stratification of each village and subsequent sampling was undertaken within class strata. The class structure is similar to what had been undertaken in the earlier ANSISS-ILO survey. In this structure these are the following seven principal groups:

- A. Agricultural wage labour: all those households hiring out agricultural wage labour, regardless of other activities;

- B. Poor-middle peasants: cultivating, no hiring in or out of agricultural wage labour, no leasing out;
- C. Middle peasants: cultivating, no hiring out of wage labour but hiring in, no leasing out, both males and females working.
- D. Big peasants: cultivating, no hiring out of wage labour but hiring in, no leasing out, only male household members working.
- E. Gentlemen farmers: cultivating, but supervisory work only by household members, labour hired in but not hired out, no leasing out.
- F. Landlords: all those leasing out land.
- G. Others: includes non-agricultural.

These groups by themselves are not homogeneous. To ensure better representation of more homogeneous sub-groups in the sample survey these have been disaggregated following ANSISS-ILO survey. The maximum disaggregation is as follows:

A. Agricultural Wage Labour

- A1 A single employer, from whom land is also leased in (tied through land).
- A2 A single employer, who has provided a loan but not land (tied through debt).
- A3 No ties (though there may be a single employer), no other occupation.
- A4 No ties, cultivation of own land also done (poor peasants)
- A5 No ties, cultivation of leased in land also done but no land owned (poor tenants)
- A6 No ties or cultivation, but another self-employment or rental income reported.
- A7 No ties, no cultivation or other self-employment but other wage employment reported (not white collar or government)
- A8 As in A7, but white collar or government wage employment reported.

B. Poor Middle Peasants

- B1 No land owned.
- B2 Some land owned.

C. Middle Peasants

- C1 No land owned.
- C2 Land owned but not more than 1 acre (unirrigated) or ½ acre (irrigated).
- C3 Land owned (more than C2).

D. Big Peasants

- D1 No land owned.
- D2 Land owned but not more than 1 acre (unirrigated) or ½ acre (irrigated).
- D3 More than 1 acre (unirrigated) owned but not more than 8 acres (unirrigated) or 4 acres (irrigated),
- D4 More than 8 acres (unirrigated) or 4 acres (irrigated) owned.

E. Gentlemen Farmers

- E1 Not more than 8 acres owned.
- E2 More than 8 acres owned.

F. Landlords

- F1 No other occupation
- F2 Non-agricultural occupation.
- F3 Cultivating, but not more than 8 acres owned (unirrigated) or 4 acres (irrigated).
- F4 Cultivating, but more than 8 acres owned (unirrigated) or 4 acres (irrigated).

G. Others

- G1 Non-agricultural self-employment.
- G2 No non-agricultural self-employment, but non-agricultural wage employment (not white collar or government).
- G3 As G2, but white collar or government employment.
- G4 No economic activity.

The complete classification gives too many groups for convenient stratification. For in any particular village, many of the groups are absent or unimportant and reaggregation is undertaken to form a coherent picture of class structure. In practice, the number of distinct groups identified varied from 3 or 4 in small villages to 20 in the largest village in the survey. Therefore, the next step was to form smaller number of

groups. Two considerations were taken into account. Firstly, reduced number of groups should provide at least some households in almost all villages. Secondly, the smaller number of groups after clubbing would continue to represent the main characteristic of any village. Agricultural wage labour and others were kept as separate entities. Poor middle peasants, middle peasants and big peasants were combined into one group. Further, gentlemen farmers and landlords were clubbed together. So, the number of groups were reduced to only four consisting of group A, combined group of B, C and D, combined group of E and F and group G. These reduced number of groups represented at least some households in almost all the villages.

The following table presents aggregated class structure and village size patterns:

Village	Class (Percentage Distribution)				Number of Households	Sample Size
	A	B/C/D	E/F	G		
Alalpur-Bishnupur(121)	31	45	14	9	148	47
Salempur-Rupaspur(122)	43	30	15	12	331	76
Paharpur Dayal(221)	19	68	11	2	62	22
Dewanparsa(231)	54	33	13	1	192	58
Mahisan(321)	67	17	7	8	714	136
Khangaon(331)	55	21	14	10	470	99
Chandkura(421)	56	34	6	3	296	74
Mohiuddinpur(431)	79	6	9	5	96	32
Jitwarpur(521)	59	30	4	6	283	161
Belabadan(531)	75	12	5	8	896	74
Samhutibuzurg(621)	66	20	9	5	262	71
Amarhi(631)	58	29	12	1	153	48
Total	59	26	9	7	3906	898

It is interesting to note that more than half of the households hire out some agricultural wage labour, the proportion being less than one-third only in two villages. The size of the peasant category B/C/D varies widely and always exceeds the landlord/gentleman farmer category by some margin but for one village it is smaller. Pure non-agricultural household (G) constitutes the smallest section of the village households.

Next task was to determine number of households to be surveyed in each of the 12 villages. First, number of households was tabulated village and groupwise. An arbitrary 20 per cent sampling was done for each group. That gave very dissimilar standard error for each group across villages. In order to say something statistically acceptable about each group as objective, sample sizes in each group was changed (by

adjusting 20 per cent sampling upwards or downwards) to give similar standard error for each group. Subsequently, sample sizes were somewhat increased for more interesting and more heterogeneous groups. The result was a total sample size of little over 22 per cent of total households, which comes to around 900, with the sampling percentage ranging from 30 to 35 per cent in smaller villages to 18 to 23 per cent in larger villages. Number of households in different subgroups was allotted in proportion to their share in specific group of particular village.

Survey Structure and Questionnaire

The overall structure of the survey was shaped dictated by several considerations.

1. We required information at several levels – the community, households and individuals within households. Intrahousehold differences is important in the analysis of employment, human development and poverty – between women and men, between adults and children and hence the need for information at both individual and household level.
2. For getting detailed information on employment, cultivation practices and other current activities only one-year reference period was used. For consumption expenditure, in some questions recall period was as short as one week.
3. In view of the large quantity of information being collected from each household, the need was to spread questions on several rounds. In twelve census villages we have collected data spreading over three rounds whereas for the 36 sample villages the survey was limited to a single round^K.

1. Community Level Data

The community level data covered all 48 villages to allow us to undertake inter-village comparison. It was initially carried out in May-October 1998 but gaps were later filled up in subsequent round of household survey. Although village schedule covered large segment of the area not covered under household survey, still there is a degree of duplication between household and village questionnaire. 12 villages in which detailed household survey has been conducted data on employment, cropping

pattern and similar data from household survey are more accurate than corresponding data from community survey.

Information was obtained in the community survey on population size, growth and to some extent on structure (caste, literacy); on facilities and infrastructure and their distribution across village groups (electricity, drinking water, toilet facilities, education and health facilities, and communications etc.). Other general information included village events, weights and measures, and village organisations. Land use, ownership, irrigation, cropping patterns and crop sales formed the next set of information along with some elaboration on crop rotations, operations, labour hiring, yield and sale prices. There were specific questions on innovation, tenancy and livestock including information on changes over time. Details were sought on the labour contracts in operation and their changes together with specific questions on occupational patterns and migration. Finally, there were sections on credit, government programmes and their impact, on power and on educational enrolment.

In all the villages, some information can be obtained from official records. Villagewise census data is available for revenue villages, notably covering population characteristics, main occupations, infrastructural facilities and land use patterns. Local officials maintain record on land use and cropping pattern. But written official documents at this level are quite unreliable. Census data are difficult to use, since many villages display erratic fluctuations from one census to the other, making them seemingly unreliable. Price data have been obtained from local markets and school enrolment data from school records.

The main source of community data was individuals from within the villages. These included village officials, group of cultivators and agricultural and non-agricultural labourers, schoolteachers and various others ranging from politicians to local literary figures. Information on wages was obtained from both employers and wage labourers, and for tenancy it was obtained from landlords and tenant households. Qualitative information were also collected from various respondents. To reduce biases care was taken to collect information from informed groups (say for cropping patterns from group of cultivators and for school enrolment from group of teachers).

2. *Household Survey Data*

Household survey was undertaken in three rounds. First round survey was undertaken in 48 villages of which 12 are census villages and the rest 36 are sample villages. These 36 villages consisted of 24 villages from plains of Bihar (same as chosen in ILO-ANSISS survey) and 12 villages from south Bihar plateau. The next two rounds of survey were undertaken in 12 census villages covering wide-ranging issues like poverty, employment and participation.

As has already been mentioned the main objective of the first round survey was to determine population characteristics and to obtain a sample frame for the selection of households for a more detailed second round survey. For 36 sample villages some additional information were collected covering some important social and economic issues. These covered issues like occupations, questions on religion caste, education and marital status, duration of residence, infant mortality, land ownership, tenancy, wage labour, assets, debts and working of various government sponsored programmes.

The second and third round survey – the more detailed ones covering around 900 households were selected through proper sampling techniques (has been already discussed) – were undertaken only in 12 census villages.

The second round survey covered the following areas:

- Additional information on demography and change from first round survey
- Detailed information on migration and their remittances.
- Land use patterns and gains / loss of land in last ten years
- Assets owned – land, productive, consumer durable and non-durable
- Indebtedness, new loans, interest and conditions attached
- Agricultural output, marketing and tenancy and income from livestock
- Labour use in cultivation and livestock, both hired and family labour
- Self employment, input, output and labour use
- Wage labour hired out – permanent and casual
- Other incomes and unemployment

- Number of Children, education and health status
- Family consumption patterns and its general frequency

The third round questionnaire was smaller than the second round questionnaire and covered new areas. They are the followings:

- Power structure, control and coercion, absolute and relative deprivation, problems faced and shortages
- Perception of and change in economic life, social amenities, law and order problem etc.
- Political and social consciousness
- Government programme on employment generation and poverty alleviation, public distribution system and policy towards agricultural sector

Participatory Rural Appraisal (PRA)

Participatory Rural Appraisal (PRA) describes a growing family of approaches and methods to enable local people to share, enhance and analyse their knowledge of life and conditions to plan and to act. This study also applied the PRA method in all the 48 villages. Teams of experienced investigators who were trained and supervised by senior researchers carried out the PRA. The teams comprised of both male and female members. Some of the members of the teams belonged to some neighbouring districts/villages of the sample districts/villages. These members were well-versed in the local conditions of the villages under study and knew some of the respondents from these villages. This created a congenial atmosphere for the fieldwork. The main PRA exercises carried out by the research teams were as follows;

- Transect Walk
- Social Mapping
- Focus Group Discussion
- Wealth Ranking
- Seasonal Food Calendar
- Case Studies

Out of these exercises, transect walk, social mapping, wealth ranking, and case studies were conducted with a mixed group of males and females. However, seasonal food calendar was conducted as a special session of focus group discussion with women in order to understand the problems and to take note of the perceptions of women.

Transect Walk: The first task for the research team was to establish rapport with the rural people, have an overview of the geographical location of the village its physical and natural resources and understand the composition of different classes and castes. Accordingly, the research team conducted a 'transect walk' within the village. During the transect walk, members of the team had informal discussions with the villagers. The villagers were encouraged to talk about the condition of their village and the changes in their lives and the village environment over the last few decades. The team members, along with some of the knowledgeable residents in their group, went around the village, carefully noting its habitation details, the location of roads and other public utilities, fields and sources of irrigation. In case one or more members of the local group were found willing, these details were reproduced in village map. The team also visited the local school, *Anganwadi*, fair price shop (PDS), *Panchayat Bhawan*, etc. This exercise provided a lot of valuable information. The team could broadly observe the natural resources, the physical terrain and assess the economic well-being of the village as a whole and of its different *bustees tolas* (hamlets), the availability and state of different infrastructural facilities such as roads, village paths, drainage, housing, electricity, access to schooling, health, drinking water and irrigation facilities and so on. In any case, at the end of the day, the team members went through the details of their visit and made a map of the village specifying the location of poor habitations in it.

As is clear from above, apart from informally introducing the team to the people of the village, the transect led to important observations about hygiene, sanitation, sewage, pattern of housing, kind of houses, spread of the village, water sources etc.

Social or Participatory Mapping: In all the villages, one *tola* (hamlet) inhabited mainly by low caste group and poor people were selected for the social mapping exercise. The villagers were persuaded by the research team to join the exercise. After a little hesitation nearly ten to fifteen villagers gathered at one common place. The participants included both men and women, belonging to different castes, classes and occupations.

Before starting the exercise the team had an informal interaction with the villagers and explained the purpose of the exercise. The villagers were asked if they could draw a social map on a chart paper using sketch pens of different colours. As soon as they started the exercise, two members of the research team started noting down the on-going discussions amongst the participants. During the exercise some of the passive participants and women were persuaded to participate more actively.

The identification of the poor and the rich was always a point of discord for the participants, but interestingly they were settling such issues themselves. During the exercise at least three to four persons took up the responsibility of drawing the map. At the end, the participants were asked to put specific symbols for wells, hand pumps, poorest settlement etc. for identifying them. This exercise gave a clear idea of the settlement of different classes and castes and their access to different resources of the village. The response of the villagers encouraged the research team to take up the problem / issues for further discussion.

In sum, the social mapping of the village provided information on castes, location of households with their caste/religious identities, sites of infrastructural facilities related to education, water resources, health, location of government amenities like PDS, *anganwadi*, etc. Most importantly, it provided the team not only insights into the ethnic composition and its significance in the lives of people, but also the role of the government and community in the development of the village.

Focus Group Discussion: Discussions were held with two to three groups, each group consisting of five to six people, in order to enable them to have detailed and intensive discussion. Care was taken to locate the groups in different hamlets of the village as identified and marked by the people in the course of social mapping. They included at least two small groups of different economic backgrounds, sometimes even simultaneously at two different places. Vocal and influential persons were kept away as it was felt that they might try to influence others. Attempt was made to include at least two women in the discussions. The facilitator from the research team raised issues and the other team members noted down the perceptions and reactions of the people participating in the discussion.

Discussions centred around issues like land relations, conflicts and litigation, government programmes and services, employment, credit, education, drinking water, health, social and political changes. However, the sequence and duration of discussion was kept flexible depending upon the interest, convenience and enthusiasm of the participants.

Wealth Ranking: The exercise of wealth ranking was performed to gain insights into people's perception of poverty more objectively. It provided valuable information about people's perception of poverty and the criteria they themselves used to stratify the rural community along levels of well being. Moreover, it proved extremely useful in eliciting a range of information and insights into issues like upward and downward mobility of households and factors that push households into or out of poverty, wages, employment pattern, migration, gender discrimination, women's control over their income, etc.

In the beginning of this exercise participants randomly selected 30-35 names from a list of households of the village. The basis of randomness, however, was determined by the research team. The villagers were given the list of the households and every fourth or fifth household as the case may be, according to the size of the villages, was selected for wealth ranking. The participants were also given 30-35 cards to note down the selected names. They were asked to place these names into 5 categories according to economic status or well being of the households. The categories were marked as 'very rich' 'rich', 'middle', 'poor' and 'very poor'. The participants were asked to pick-up the names one by one and place them in the right category. It was observed that they placed the names with extreme care and only after discussion with their fellow participants. The research team was careful in noting down all their discussions, reactions and perceptions. On a number of occasions, difference of opinion surfaced on the question of enlisting a particular name in a particular category. However, after prolonged arguments and counter-arguments, they were able to settle the issue and enlist the names in different categories.

After the classification of all the names, the participants were asked to identify 5 poorest and 5 richest persons of the village. This seemed a tough task for the participants, as they were hesitant to include a person in the richest category. At the same time, although for different reason (prevalence of acute poverty) picking only 5 names also proved to be a difficult exercise. The participants were once again involved in

intense discussions and tried to evaluate various economic characteristics of the households to arrive at what they perceived to be the richest or the poorest. The criteria that they adopted provided valuable insights to the research team. At the end of the exercise the research team picked up two-three cards randomly from different economic groups and asked the participants the reasons for enlisting the persons in different categories. This also confirmed the criteria used by them as the basis of economic grouping.

Food Calendar: The exercise of the food calendar was carried out with a group of 5 to 6 women belonging to very poor, mostly landless agricultural labour households - very often either scheduled or other lower castes. Though the exercise was performed at the house of one of the participants in the hamlet, equal participation of other women was ensured. On a number of occasions, some male participants were also present. Initially it was the males who initiated most of the discussions, but gradually as the exercise progressed women got involved and finally dominated the discussions. They discussed among themselves the availability and consumption of major and less important food items in different months, so as to prepare the calendar. The mapping was done on the ground, which was later copied on a chart paper by the research team.

Case studies: Finally, detailed interviews were held with a number of poor men and women in each of the study villages. These interviews focussed on the profile of the respondents and their households and changes which had impinged on their individual and household conditions as well as on the lives of the poor in general in their villages.

Concept and Definition: Land, Caste and Class

This report will use land, caste and class as different measures of societal stratification and economic functions. It raises different conceptual issues of their relationship with different aspects of poverty or employment.

Land:

Three major issues arise in the specification of land variable. They are: i) adjusting areas for number of 'users' ii) allowing for land quality and iii) allowing for variation in control over land.

- i) Land area: In rural Bihar the household is the most convenient unit for economic analysis, so that total land per household would seem to be the obvious starting point, especially when land is a proxy for total wealth. When analysing labour supply patterns, however, the influence of land on availability of work has to be adjusted for the number of potential workers in the household - that is, land per adult or a similar measure will be more appropriate than total land. In case, where land acts as a proxy for income, total household size may be better as a deflator, suggesting the use of land per capita.

The choice of denominator thus varies from case to case, for analysis we have simply used land size per household in conventional size groups - 0 to 1 acre, 1 to 2.5, 2.5 to 5, 5 to 10, 10 to 20 and more than 20. There is no particular logic to these groups, other than comparability with other studies.

- ii) Land quality: Substantial differences in soil type and land height considerably affect land use and crop yields; which could not be taken into account. Data are available on irrigation considered to be the most important single aspect of land quality. Alternatively, a single variable measuring total land owned could be used with a weight of 0.5 assigned to non-irrigated land. However, in this report such distinctions were not made.

- iii) Land control: The key distinction here is between land owned and land cultivated. The latter measure, which excludes land leased out and includes land leased in, may be more appropriate for some purposes (e.g. measuring scale factors in technology use). But ownership gives a better measure of the overall asset situation, especially after the exclusion of land lost to usufruct mortgage and other forms of loss of control. It was, therefore, concluded that ownership should be the basic criterion, and that the lesser control over land implied by tenancy would be best expressed in a separate variable measuring area leased in.

Caste:

The simplest, universally acceptable breakdown in Bihar is three fold: "forward", "backward" and "scheduled" castes. Forward castes - Brahmin, Bhumihar, Rajput and Kayastha - are those which have been historically dominant, and continue to be prominent in the echelons of both urban and rural areas, although their

influence has considerably declined over time, more so in recent years. Scheduled Castes - Harijan - constitute the lowest rung of the hierarchy, while backward castes are a heterogeneous intermediate case. To these three categories Muslims are added as a separate group. A fifth group Scheduled Tribes was not found in the sample of plains. They are quite important in the survey of the plateau region

A more detailed disaggregation is also used in the analysis below. Our basic class desegregation identifies nine groups. Since the explanatory power of any classification scheme increases with the number of groups identified, comparability required an equivalent disaggregation of castes. Eleven caste groups were therefore formed, as follows:

1. Forward 1 (Brahmins + Kayastha)
2. Forward 2 (Bhumihars + Rajput)
3. Backward I
4. Backward II - Yadav
5. Backward II - Koiri
6. Backward II - Kurmi
7. Backward II - Others
8. Scheduled Castes
9. Scheduled Tribe
10. Upper Caste Muslim
11. Backward Caste Muslim

There are a large number of ways in which eleven castes groups could be formed. This categorisation attempts to minimise heterogeneity within groups with respect to rural economic behaviour, subject to existence of clear boundaries and sufficient number of households in each category. The most mixed group in the four-category breakdown is the "backward" castes - something of a misnomer, since many of these castes are in no way backward. Three prominent and numerically preponderant agricultural castes, often locally dominant, are separated out - Koiri, Kurmi and Yadav (the latter traditionally dealing with livestock - "milkmen" - but in practice most often agriculturists). Remaining

backward castes are again divided, using the official classification, into "other backward II", and "backward I". Both of these groups include service, trading and specific occupational castes, but the backward I group is generally much less well endowed with skills, land or capital, and is more often found in agricultural wage labour.

It was also considered necessary to break the "forward" caste group into two; since Brahmins and Kayasthas (there were very few Kayasthas in our sample) are traditionally non-agriculturists, and their ritual position influence their economic behaviour.

The remaining two major groups, scheduled castes and Muslims, are also fairly heterogeneous. The bulk of scheduled castes are found in agricultural labour, but some retain caste occupations (Dhobi, Dom, and Halkhor). However, in our sample the vast majority of scheduled castes were Mushars, Dusadhs and Chamars, and there was no apparent basis for differentiation. It was therefore felt better to retain them in a single group. Muslims, are found to be heavily represented among agricultural labour, with exceptions like dominance in some areas and prominence among larger cultivators and landlords. A form of "caste" also prevails among Muslims. It can be categorised as forward and backward caste Muslims. A small section of forward caste Muslims belong to the category of big peasants / landlords.

Class:

A feature of rural Bihar is the coexistence of various forms of exploitation (rent, usury, different forms of labour and a number of social groups), quite distinct in the system of production relations, but not necessarily directly antagonistic for there is no direct contradiction between them. As regards group consciousness, it is caste - rather than class-based, even though one can reasonably argue that this consciousness is the result of the relationship which arises from the nature of appropriation of surplus. To capture the key characteristics of this social formation, a fairly detailed class breakdown has been developed, based on the generation of surplus value in agriculture and its appropriation through the relations of production.

Households which supply physical labour in agriculture, where one or more members of the household is / are engaged in agricultural operations in other people's lands in return for some payment either in cash, kind or land, or for debt servicing, are

termed "agricultural labour" households. These households are more often than not exploited and command the lowest status in the agricultural community. Above this level are those peasant households that neither hire out nor hire in labourers for agricultural operations and conduct their agricultural activities with the help of the members of their households. These are termed "poor-middle peasant" households. They are neither exploiting nor directly exploited through the labour process. Some or all may nevertheless be exploited (i.e. the surplus value they generate may be partly appropriated) through rent or usury or adverse terms of trade. Their status is higher than that of agricultural labourers.

The next class comprises of peasant households that supplement their own labour in agriculture with hiring in. This class can be divided into three. First there are those who lease out some land. These are termed as landlords. Non-peasant landowners who do not work on the land themselves, and cultivate only through hired labourers, are also termed as landlords. This categorisation is analytic rather than descriptive, since it combines petty leasers-out with large landowners who lease out a few plots. However, in the classification we give priority to the qualitative position vis-à-vis the means of production. Note that the term "landlord" is a little misleading, since most of them do not have large landholdings and cannot be regarded as "lords". Since this terminology is now traditional, to depart from it considered to be confusing.

Among the remaining peasant households, there are some who deem it below their dignity to allow female household members to work physically even in their own farms. These are termed "big peasant" households. The households which employ both men and women household members are termed "middle peasant" households. The logic of this subdivision rests on the nature of use of family labour, which is important both in itself and in the implied degree of reliance on hired labour.

The important point to note about this classification is that it does not depend directly on land area owned or cultivated, but only on the way the household utilises labour and land. Some anomalies still remain. For instance, those who are forced to lease out their land because age or illness incapacitates them from cultivation are classified as landlords - correct up to a point but reveals only half of the story. Households with no female members of working age cannot, by definition, be classified as middle peasants.

So further disaggregation would no doubt improve the classification; but given the need to limit the number of categories formed, we would argue that the landlord-big peasant-middle peasant breakdown captures the main features of the class system.

Agricultural labour households also need to be subdivided because the nature of their terms of employment varies, as does their relation to the means of production. A crucial differentiation in the labour process is between "free" and "unfree" labour - actually a continuum. Attachment to a single employer - work only for that employer combined with indebtedness to him, or the leasing of land from him - is taken as an indication of relative lack of freedom, because it may merely reflect a freely entered long term contract. As regards access to the means of production, "proletarian" or "free" labour is free from bondage or serfdom, but also devoid of the means of production. This distinction calls for a second subdivision of the agricultural labour class, and the cultivation of own or tenanted land provides a critical dividing point. This gives the following four classes of agricultural labour:

- attached, not cultivating (ALNA = agricultural labour, not cultivating, attached)
- not attached, not cultivating (ALNF = not cultivating, free)
- attached, cultivating (ALLA = cultivating land, attached)
- not attached, cultivating (ALLF = cultivating land, free)

Our classification of peasants and landlords above gives:

- poor-middle peasants (POORMIDP)
- middle peasants (MIDP)
- big peasants (BIGP)
- landlords (LANDLD)

Finally, we add a class of non-agriculturists (NONAG), to give a total of nine classes.

Four-fold classification in subsequent analysis was often found unnecessarily detailed. Agricultural labour is therefore sometimes divided into two groups, 'tied' and 'untied'.

Data Base of the Present Study

In this section we begin with the list of villages and number of households covered in the survey both census and sample. As can be seen in **table 2.1** the census villages numbering 12 covers 3906 households and sample villages numbering 24 cover 1813 households. Together the total number of households covered is 5719.

Tables 2.2 and 2.4 provide separately the class composition of households across districts for sample and census villages separately. Census villages show more preponderance of agricultural labour and relatively less proportion of poor, middle and big peasants compared to sample villages.

In the similar fashion, **Tables 2.3 and 2.5** give the district-wise caste composition for sample and census villages separately. In census villages both forward and scheduled castes composition is far higher than the sample villages with the poor representation of landed backward II castes.

To get a better representation of the rural Bihar, we have used different weighing pattern for census and sample villages. In census villages, the surveyed households being more than double the number of households surveyed in sample villages, any presentation of analysis without weighing will be biased to census villages. While surveying the sample villages we first undertook houselisting operation and then every fourth household for smaller villages and every fifth household for larger villages were surveyed. Accordingly, we have given weight of four to smaller sample village household and weight of five to larger sample village household. Census village households were not given any weights (i.e., unity weight). In all subsequent analysis of different chapters this same weighting pattern will be followed. In all further analysis, therefore, we have only presented the percentage figures when analysing across class, caste, district and size patterns.

Table 2.1: Village Listing & Number of Households Covered in Bihar Plain

<i>Village Code</i>	<i>District</i>	<i>Name of the Village</i>	Number of Households Surveyed
<i>Census Village</i>			
121	Gaya	Alalpur Bishunpur	148
122	Gaya	Salempur Rupaspur	331
221	Gopalganj	Paharpur Dayal	62
231	Gopalganj	Diwan Parsa	192
321	Madhubani	Mahisam	714
331	Madhubani	Khangaon	470
421	Nalanda	Chandkura	296
431	Nalanda	Mohiuddinpur	96
521	Purnea	Jitwarpur	896
531	Purnea	Belabadan	283
621	Rohtas	Samhutibuzurg	262
631	Rohtas	Amarhi	153
Sub-Total			3906
<i>Sample Village</i>			
111	Gaya	Khesari	44
112	Gaya	Khukri	129
131	Gaya	Kari	125
132	Gaya	Kanaudi	28
211	Gopalganj	Mirzapur	107
212	Gopalganj	Khusihal Chapar	49
222	Gopalganj	Bania Chapar	59
232	Gopalganj	Misir Batarhan	50
311	Madhubani	Jhitki	121
312	Madhubani	Semhli	98
322	Madhubani	Bahera	62
332	Madhubani	Haidarpur Vijay	59
411	Nalanda	Tarokhar	35
412	Nalanda	Darbeshpura	113
422	Nalanda	Bhokilapar	38
432	Nalanda	Barandi	98
511	Purnea	Pathantoli	79
512	Purnea	Bhokri	125
522	Purnea	Kasaila	108
532	Purnea	Makhnaha	104
611	Rohtas	Chakchatar	25
612	Rohtas	Anhar	35
622	Rohtas	Bhuawal	24
632	Rohtas	Kaithi	98
Sub-Total			1813
Grand Total			5719

**Table 2.2: Distribution of Class across District
Sample Villages**

CLASS	Count Row Pct Col Pct	DISTRICT						Row Total	
		GAYA	GOPALGANJ	MADHUBANI	NALANDA	PURNEA	ROHTAS		
		1	2	3	4	5	6		
ALNF	1	70 16.3 21.5	12 2.8 4.5	72 16.7 21.2	76 17.7 26.8	176 40.9 42.3	24 5.6 13.2	430 23.7	
	ALNA	2	8 12.5 2.5	3 4.7 1.1	4 6.3 1.2	32 50.0 11.3	13 20.3 3.1	4 6.3 2.2	64 3.5
		ALLF	3	57 14.0 17.5	93 22.8 35.1	67 16.4 19.7	37 9.1 13.0	104 25.5 25.0	50 12.3 27.5
ALLA			4	11 15.7 3.4	15 21.4 5.7	21 30.0 6.2	13 18.6 4.6	7 10.0 1.7	3 4.3 1.6
	POORMIDP		5	17 18.5 5.2	47 51.1 17.7	10 10.9 2.9	11 12.0 3.9	1 1.1 .2	6 6.5 3.3
		MIDP	6	60 35.3 18.4	24 14.1 9.1	28 16.5 8.2	30 17.6 10.6	12 7.1 2.9	16 9.4 8.8
BIGP			7	53 15.0 16.3	47 13.3 17.7	84 23.7 24.7	55 15.5 19.4	70 19.8 16.8	45 12.7 24.7
	LANDLD		8	17 15.3 5.2	13 11.7 4.9	38 34.2 11.2	14 12.6 4.9	7 6.3 1.7	22 19.8 12.1
		NONAG	9	33 28.9 10.1	11 9.6 4.2	16 14.0 4.7	16 14.0 5.6	26 22.8 6.3	12 10.5 6.6
Column Total			326 18.0	265 14.6	340 18.8	284 15.7	416 22.9	182 10.0	1813 100.0

Note: ALNF = Agricultural labourer non-cultivating free.
ALNA = Agricultural labourer non-cultivating tied.
ALLF = Agricultural labourer cultivating free.
ALLA = Agricultural labourer cultivating tied.
POORMIDP = Poor middle peasant.
MIDP = Middle peasant.
BIGP = Big peasant.
LANDLD = Landlord.
NONAG = Non-agricultural.

Table 2.3: Distribution of Castes across District

Sample Villages

CASTE	Count Row Pct Col Pct	DISTRICT						Row Total
		GAYA	GOPALGANJ	MADHUBANI	NALANDA	PURNEA	ROHTAS	
		1	2	3	4	5	6	
BRAHMIN+KAYASTHA	1 18 9.9 5.5	43 23.6 16.2	77 42.3 22.6	11 6.0 3.9	3 1.6 .7	30 16.5 16.5	182 10.0	
BHUMIHAR+RAJPUT	2 18 15.4 5.5	15 12.8 5.7	28 23.9 8.2	26 22.2 9.2	9 7.7 2.2	21 17.9 11.5	117 6.5	
BACKWARD I	3 25 8.5 7.7	28 9.6 10.6	80 27.3 23.5	44 15.0 15.5	87 29.7 20.9	29 9.9 15.9	293 16.2	
KURMI	4	3 5.8 1.1			36 69.2 12.7	4 7.7 1.0	9 17.3 4.9	52 2.9
YADAV	5 70 35.9 21.5	35 17.9 13.2	22 11.3 6.5	29 14.9 10.2	1 .5 .2	38 19.5 20.9	195 10.8	
KOIRI	6 30 37.0 9.2	32 39.5 12.1	3 3.7 .9	16 19.8 5.6			81 4.5	
OTHER BACKWRD II	7 37 21.3 11.3	50 28.7 18.9	39 22.4 11.5	15 8.6 5.3	1 .6 .2	32 18.4 17.6	174 9.6	
S.C.	8 128 36.4 39.3	41 11.6 15.5	49 13.9 14.4	105 29.8 37.0	13 3.7 3.1	16 4.5 8.8	352 19.4	
S.T.	9				17 100.0 4.1		17 .9	
UPPER CASTE MUSLIM	10		14 13.7 4.1	1 1.0 .4	87 85.3 20.9		102 5.6	
BACKWARD CASTE MUSLIM	11	18 7.3 6.8	28 11.3 8.2	1 .4 .4	194 78.2 46.6	7 2.8 3.8	248 13.7	
Column Total		326 18.0	265 14.6	340 18.8	284 15.7	416 22.9	182 10.0	1813 100.0

Table 2.4: Distribution of Classes across District

Census Villages

CLASS	Count Row Pct Col Pct	DISTRICT						Row Total
		GAYA	GOPALGAN J	MADHUBAN I	NALANDA	PURNEA	ROHTAS	
		1	2	3	4	5	6	
ALNF	1	122	13	386	150	405	94	1170
		10.4	1.1	33.0	12.8	34.6	8.0	30.0
		25.5	5.1	32.5	38.3	34.4	22.7	
ALNA	2	5	5	23	24	22	15	94
		5.3	5.3	24.5	25.5	23.4	16.0	2.4
		1.0	2.0	1.9	6.1	1.9	3.6	
ALLF	3	51	71	242	54	290	143	851
		6.0	8.3	28.4	6.3	34.1	16.8	21.8
		10.6	28.0	20.4	13.8	24.6	34.5	
ALLA	4	18	26	89	15	25	11	184
		9.8	14.1	48.4	8.2	13.6	6.0	4.7
		3.8	10.2	7.5	3.8	2.1	2.7	
POORMIDP	5	17	14	23	16	29	3	102
		16.7	13.7	22.5	15.7	28.4	2.9	2.6
		3.5	5.5	1.9	4.1	2.5	.7	
MIDP	6	42	20	68	45	45	18	238
		17.6	8.4	28.6	18.9	18.9	7.6	6.1
		8.8	7.9	5.7	11.5	3.8	4.3	
BIGP	7	104	71	128	47	228	77	655
		15.9	10.8	19.5	7.2	34.8	11.8	16.8
		21.7	28.0	10.8	12.0	19.3	18.6	
LANDLD	8	70	31	119	27	54	40	341
		20.5	9.1	34.9	7.9	15.8	11.7	8.7
		14.6	12.2	10.0	6.9	4.6	9.6	
NONAG	9	50	3	109	14	81	14	271
		18.5	1.1	40.2	5.2	29.9	5.2	6.9
		10.4	1.2	9.2	3.6	6.9	3.4	
Column Total		479	254	1187	392	1179	415	3906
		12.3	6.5	30.4	10.0	30.2	10.6	100.0

Table 2.5: Distribution of Castes across District

Census Villages

CASTE	Count Row Pct Col Pct	DISTRICT						Row Total	
		GAYA	GOPALGANJ		MADHUBANJ	NALANDA	PURNEA		ROHTAS
		1	2	3	4	5	6		
BRAHMIN+KAYASTHA	1 11 2.0 2.3	50 9.2 19.7	107 19.8 9.0	10 1.8 2.6	295 54.5 25.0	68 12.6 16.4	541 13.9		
BHUMIHAR+RAJPUT	2 122 39.9 25.5	25 8.2 9.8	142 46.4 12.0	4 1.3 1.0		13 4.2 3.1	306 7.8		
BACKWARD I	3 53 7.2 11.1	4 .5 1.6	197 26.6 16.6	67 9.0 17.1	403 54.4 34.2	17 2.3 4.1	741 19.0		
KURMI	4 49 23.3 10.2	8 3.8 3.1	64 30.5 5.4	10 4.8 2.6	81 70.4 20.7	14 12.2 1.2	8 7.0 1.9	115 2.9	
YADAV	5 74 55.6 15.4	28 21.1 11.0	1 .8 .1	6 4.5 1.5		24 18.0 5.8	133 3.4		
KOIRI	6 38 13.1 7.9	54 18.6 21.3	63 21.7 5.3	24 8.3 6.1	83 28.6 7.0	28 9.7 6.7	290 7.4		
OTHER BACKWRD II	7 105 10.6 21.9	49 5.0 19.3	364 36.8 30.7	187 18.9 47.7	141 14.3 12.0	143 14.5 34.5	989 25.3		
S.C.	8 105 10.6 21.9	49 5.0 19.3	364 36.8 30.7	187 18.9 47.7	141 14.3 12.0	143 14.5 34.5	989 25.3		
S.T.	9 105 10.6 21.9	49 5.0 19.3	364 36.8 30.7	187 18.9 47.7	141 14.3 12.0	41 100.0 9.9	41 1.0		
UPPER CASTE MUSLIM	10 105 10.6 21.9	14 14.0	19 5.5	3 1.6	103	3.5 8.7	136		
BACKWARD CASTE MUSLIM	11 27 6.7 5.6	10 2.5 3.9	230 56.9 19.4	3 .7 .8	106 26.2 9.0	28 6.9 6.7	404 10.3		
Column Total		479 12.3	254 6.5	1187 30.4	392 10.0	1179 30.2	415 10.6	3906 100.0	

ⁱ The economic village is a concept of village of an economic unit. Many smaller revenue villages are components of larger economic village. For example, small revenue village may only consist of labourers who work for wages in adjoining hamlet whereas large village may contain more than one distinct economic unit and others could be sufficiently large to be semi-urban in character.

^k the third round data are still being collected.