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REPORT ON A TIME ALLOCATION STUDY — ITS
METHODOLOGICAL IMPLICATIONS

Devaki Jain & Malini Chand*

* Institute of Social Studies Trust, M-1 Kanchanjunga,
18, Barakhamba Road, New Delhi 110 001

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Devaki Jain
Malini Chand

INTRODUCTION

- Scope**
- 1.1 This paper presents the results of a household survey conducted in 6 villages, 3 in Bharatpur Distt. of Rajasthan and 3 in Birbhum Distt. of West Bengal between September, 1976 and December 1977.
- 1.2 A pre-test household survey was conducted in one village, Muluk, in Bholpur Distt. for 2 months - July and August 1976 - previous to the major survey.
- Hypothesis**
- 1.3 The hypothesis on the basis of which this study was undertaken was that female work participation in India was under-enumerated because of the nature of female work and wage.
- Objective**
- 1.4 i) The primary objective of the study was to test this hypothesis.
- ii) A second objective was to try to identify the various determinants of female labour supply.
- iii) A third was to re-group productive and non-productive activities and define gainful activity on the basis of the evidence.
- 1.5 However as the study went along many additional issues as well as information was thrown up which both widened and reduced the scope of the investigation. Some of these changes will be reflected in the findings reported later in this paper.
- Criteria for selection of villages**
- 1.6 a) Clusters of 3 villages were selected in two districts representing two agro-climatic characteristics - dry millet farming in Rajasthan and wet paddy cultivation in West Bengal. 3 were selected as being a minimum sample for attempting an estimate for the district.
- b) Districts were chosen on the basis of relative backwardness in terms of unemployment rates within the two states ; the tehsils were chosen to reflect "ruralness", - as remote as possible from towns, main roads, access ; the villages were selected to cluster around one nucleus NSSO village from the 27th round sample.

- c) An additional criterion was introduced to capture variations that may emerge from ethnicity and/or religion. Thus, one of the sample villages in Rajasthan is 100 per cent tribal; and one in West Bengal is almost 100 per cent Muslim.¹
- d) Proximity from supervisory control was another reason for choosing Bharatpur and Bholpur in the first place and Birbhum later.²

1.7 One village in Bholpur District, Muluk was selected for a trial of the observed recording of time methodology. Full report on Muluk is appended (Appendix 3)*. Five households selected on the basis of economic class (landless, middle and rich peasant) were surveyed for 2 months, with five visits, each of two consecutive days. The findings of this survey provided the basis for the stratification plan for the longer 12 month survey.

Sampling
Design

- 1.8 A census of households was conducted by the survey team with the help of the NSSO field staff in both regions, using the usual questionnaire method (Questionnaire in methodology appendix).
- 1.9 A 15 per cent sample of the household population in each village was selected with the sample being weighted in favour of poor households (proxy for economic class being land holding). The total sample size was 127 households, of which 52 were in the Rajasthan villages and 75 in the West Bengal villages.

-
- 1) This additional characteristic was introduced in response to the advice of Dr. Surjit Sinha, former Vice-Chancellor of Viswa Bharati University.
 - 2) The study was initially to be a collaborative effort between Dr. Ashok Rudra and us. Since Dr. Rudra was located at Shantiniketan, a district near Viswa Bharati was chosen. Similarly, Bharatpur is within 4 hours of Delhi. However, due to unavoidable reasons Dr. Rudra had to leave Shantiniketan at that time. The further progress of the study, its methodology as well as its findings, do not have the benefit of his advice.

* This field work was entirely designed and executed by Dr. Ashok Rudra (Viswa Bharati University) and Rekha Roy.

- Investigators 1.10 Two female graduates conducted the survey in Rajasthan and three in West Bengal. They were given a free style questionnaire with time in half hour intervals in one column and another column for free recording of activities as observed (see Appendix 1 for schedules and activity lists). The field staff was located in the villages for a period of 52 weeks.
- Mode of investigation 1.11 The mode of investigation was observation and not recall. Each selected household was observed on two consecutive days, when the activities of every member of age 5 and above were recorded for a period of 15 hours, 6.00 a.m. to 9.00 a.m. Clearly observation was not continuous since the investigators needed time for physiological needs. Such small gaps in observation were filled by questioning through recall. The frequency of observation of each sampled household was once in two months i.e. six times during the 52 week cycle.
- 1.12 Though for testing under-enumeration hypothesis, only the intensive observed-activity recording and regrouping survey-results are useful, the results of the data obtained from the usual questionnaire method are also given here, as they are indicative of some of the characteristics of females and child workers.
- Categories of results 1.13 Hence the results presented below are divided into 3 parts :
- i) The results from the census of households in the six villages conducted by us i.e. data for 869 households, tabulated from a questionnaire canvassed on the households just once namely in the last quarter of 1976 ;
 - ii) The results of the more intensive survey conducted only on 127 households - recorded 6 times per household over 52 weeks by resident investigators ;
 - iii) The results of the survey of 5 households in Muluk village, recording time spent by individual members, five times per household over 8 weeks, each time for two consecutive days.
- Limitations 1.14 1) The sample of households being extremely small -
- a) comparison with secondary data becomes tenuous ;
 - b) inferences about behaviour/relationships cannot be generalised.

- 2) Certain field problems had to be accommodated and rules of thumb designed to sort them out as for example recording of activities of dispersed members of household, not formally employed.
- 3) Other useful data such as local labour market factors including payment systems ; physical outputs, incomes of farms and/or households were not collected as their value for this study became apparent only with hind-sight.

2.0 VILLAGE SURVEY (1976) QUESTIONNAIRE METHOD

- 2.1 As we have said in Section I, while the main purpose of the study was to collect time allocation data, the census of all households, using a standard employment/un-employment Block questionnaire (Appendix I - Methodology) yielded some insight which helped in the interpretation of the time allocation data. Hence some tables and comments pertaining to that survey are given below. (A profile of the districts, the villages, their population as derived from our field survey and the census is given in Appendix II).
- 2.2 Table 2.1 gives participation rates for West Bengal and Rajasthan, the sample districts and villages from the decennial census as well as the village survey (ISS 1976), and the rate derived from the time disposition study.

Table 2.1 Percentage of gainfully employed males/females to total males/females

	1961		1971		ISS Census 1976		Time Disposition study	
	M	F	M	F	M	F	M	F
Rajasthan	58	36	52	10	-	-	-	-
Bharatpur	58	23	51	4	-	-	-	-
Etrampura	69	69	53	0	55)	47)	-	-
Mehtoli	60	30	53	0	54)54*	40)46*	70*	71*
Chentoli	59	60	51	4	53)	50)	-	-
West Bengal	54	9	49	5	-	-	-	-
Birbhum	52	9	49	5	-	-	-	-
Selarpur	60	7	59	15	53)	12)	-	-
Thebgeon	60	1	41	2	58)54	4)7*	69*	29
Kutia	53	0	56	2	51)	3)	-	-

* Figures represent the average participation rates for the three villages.

All calculations are the percentage of gainfully employed males/females to total males/females in the population.

It will also be noticed from Table 2.1 that there is a very large difference between the FPRs of the two States. An attempt will be made to explore this not only because it was one of the objectives of the ICSSR study but also because this exploration provides some insights in identifying reasons for under-enumeration.

- 2.3 In Table 2.2 comparison with a few more States is made, the additional 4 states being chosen on the assumption that Madhya Pradesh and Bihar are 'closer' in agro-climatic typology to Rajasthan; and Andhra Pradesh and Orissa to West Bengal. We find that there is an "Eastern Region" phenomena. Orissa, Bihar and West Bengal have lower FPR relative to Rajasthan and Madhya Pradesh.

Table 2.2 Percentage of rural females working according to current day status to total female of age 5 years and above for all-India and certain States.

All India	23
West Bengal	9
Orissa	17
Bihar	14
Rajasthan	36
Madhya Pradesh	33
Andhra Pradesh	34

Source : Study Report Based on NSS 32nd Round (1977-78) Survey Results on Employment and Unemployment made by FAO Part I, Page 66, Table 20, Reference I.

Figures rounded to the nearest decimal.

- 2.4 It can be observed that the participation rates derived from our Census were not always higher than those derived from the 61 census in spite of the fact that female investigators canvassed the schedule. However, the participation rates derived from the time disposition studies data were higher, the difference being particularly marked for the females in the West Bengal villages.
- 2.5 Can this behaviour be related to crop? Table 2.3 gives FPR figures for rice intensive districts in the same 5 States (1961).

Figures for Bihar and Orissa are near 15 percent whereas West Bengal 9 percent, Andhra 34 percent, Madhya Pradesh 33 percent. This relative closeness of West Bengal to Orissa and Bihar even though West Bengal still has an extremely low FPR, leads to the view that whatever the crop the FPR in that region is low.

Table 2.3 Participation Rates in Rice Intensive Districts-1961

State	District	Male	Female
West Bengal	Bardwan	55	9
	Bardwan	54	9
Orissa	Sambalpur	61	27
	Sambalpur	65	40
Bihar	Shahbad	56	27
	Shahbad	53	20
Madhya Pradesh	Raipur	60	44
	Raipur	62	53
Andhra Pradesh	W. Godavari	62	41
	W. Godavari	63	32

Source : Census 1961 figures rounded to the nearest decimal.

- 2.6 From the 32nd Round special tabulations some clues emerge. Table 2.4 shows West Bengal females are much less visible in manual work in agriculture, but very visible in non-agriculture compared to Bihar or Orissa females (see Col. 7 and 12).
- 2.7 On the other hand they are like their Bihar/Orissa sisters in preferring work at home relative to Madhya Pradesh or Rajasthan women (Table 2.5).

Table 2.4 Percentage distribution of person-days per day of rural females of age 5 years and above working as self-employed by type of operating for all-India and States.

All-India/ State/ Union Territory	Plou- ghing	Sow- ing	Trans- plant- ing	Weed- ing	Har- vest- ing	Other manual work in agricul- ture	Non- manual work in agricul- ture	Agricul- ture - Sub- Total	Manual work in non- agricul- ture	Non- manual work in non- agricul- ture	Non- agricul- ture Sub- Total	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
West Bengal	1.22	0.48	5.83	5.17	8.49	21.00	7.56	49.75	43.06	7.19	50.25	100
Orissa	1.64	2.28	7.57	3.56	9.99	43.27	2.75	71.06	27.07	1.87	28.94	100
Bihar	3.27	1.34	7.51	8.03	14.67	37.39	5.93	78.14	19.51	2.35	21.86	100
Rajasthan	1.01	0.66	1.30	5.90	11.33	74.59	1.44	96.23	3.30	0.47	3.77	100
Madhya Pradesh	2.04	0.85	1.21	14.92	21.07	49.79	4.34	94.22	4.14	1.64	5.78	100
Andhra Pradesh	1.00	1.43	4.78	9.23	11.00	40.36	3.22	71.02	23.78	5.20	28.98	100

Source : Reference I, Page 61, Table 18.

Table 2.5 Percentage of Rural Females Normally Engaged in domestic Duties Available for work, if work is provided at their residences for all India and Certain States.

	All ages
All India	23
West Bengal	27
Orissa	26
Bihar	31
Rajasthan	18
Madhya Pradesh	9
Andhra Pradesh	25

Source : Reference I, Page 103, Table 38.

- 2.8 Does this pattern of low appearance in the identifiable or traditionally defined labour force change across classes? In our village survey data Table 2.6(a)(b) it will be noticed that while land does not affect male participation very much in Rajasthan, it is a significant factor for females in Rajasthan and males in West Bengal (In fact throughout the study this strange similarity characteristics between female labour in Rajasthan and male labour in West Bengal persist, especially markedly in children). The FPR in Rajasthan and MPR in West Bengal amongst landless is greater than average general participation rate.

Table 2.6a Work Participation rates by land classes & sexes in the surveyed villages (Census of Households - Villages (3) 1976 Census.

Rajasthan (October 1976)

Operated land (in bighas)	Work Participation Rates		
	Males	Females	General
Landless	67.0	74.1	70.5
0.1 - 2	69.9	47.4	58.5
2 - 5	67.0	67.4	67.1
5 - 10	67.5	57.6	63.1
10-15	66.5	53.9	61.3
15-20	50.9	52.1	51.1
-20	63.7	52.0	59.6

Table 2.6b West Bengal (Dec. 1976)

Operated land (in acres)	Work Participation Rates		
	Males	Females	General
Landless	70.8	3.6	33.0
Homestead only	79.2	4.5	40.2
0.1-1	69.3	2.5	36.7
1 - 2	56.5	6.0	30.2
3.5 - 5.0	56.9	4.6	29.3
5.0 - 7.5	48.9	1.8	23.3
7.5 - 10.0	38.1	4.3	20.4
- 10	50.0	0.0	25.0

- 2.9 It appears that in the Eastern Region the dominant reason for low FPR is not so much the agronomy and other economic factors, or measurement failure but some cultural modes inhibition against women "working like men". West Bengal exhibits this inhibition even more than its neighbours, Orissa and Bihar.
- 2.10 In Rajasthan the FPR moves steadily inversely to land ownership class, whereas MPR does not show this effect. Finally among landless, FPR is greater than MPR. The pressure of landlessness however does not seem to bring out females in West Bengal into the easily identified workers categories. What they are doing under this pressure, namely more intensive work in household chores, comes out better in time allocation study section, though the sample is too small to generalise.
- 2.11 The importance of income or asset in determining FPR also emerges strongly in the FAO Study (Ref. 1) though it finds income more powerful than land (Table 2.7a and 2.7b).
- 2.12 Notice strong inverse relationship between percentage females engaged in free collection and income levels - poor women are **compelled to go in for free collection** whereas **as they get better off they do sewing/tailoring, tutor children** (col. 4 and col. 5). Land possessed (Table 2.7 does not move inversely as neatly with Col. 2, though the association in Col. 3 and 4 of health

Table 2.7a Percentage of females engaged in rural India carrying out the different specified activities to total females engaged in domestic duties by household monthly per capita expenditure class.

Household monthly per capita expenditure (Rs. 0.00 Class)	Percentage of Females Engaged in				
	Free collection	Working in kitchen garden or HH poultry etc.	Sewing, tailoring or weaving	Tutoring of Children	Bringing Water from other Villages
0.00 - 9.99	56.17	30.40	-	-	3.96
10.00 - 19.99	63.26	30.44	4.14	0.60	3.96
20.00 - 29.99	53.71	28.45	4.38	0.58	4.28
30.00 - 39.99	46.86	29.09	4.43	0.57	3.76
40.00 - 49.99	41.63	29.47	7.39	0.76	3.49
50.00 - 69.99	37.19	32.00	9.47	1.17	3.32
70.00 - 99.99	31.46	33.30	10.68	1.36	3.38
100.00 - 149.99	24.89	33.00	13.00	2.12	2.64
150.00 - 199.99	24.16	35.16	16.88	2.32	2.95
200.00 & above	18.32	36.50	16.89	2.69	2.10
<u>Total</u>	<u>37.09</u>	<u>31.55</u>	<u>9.38</u>	<u>1.19</u>	<u>3.37</u>

Table 2.7b Percentage of females in Rural India Carrying out the different specified activities to total females engaged in domestic duties by household land possessed classes*

Household land possessed class (acres 0.00)	Percentage of females engaged in				
	Free collection	Working in kitchen garden or HH poultry etc.	Sewing, Tailoring or Weaving	Tutoring of children	Bringing Water from other Villages
0.00 without owned home- stead	28.25	11.71	5.43	2.46	1.89
0.00 with owned home- stead	39.41	17.60	5.85	0.38	4.69
0.01 - 0.49	41.93	24.76	9.03	1.19	3.12
0.50 - 0.99	46.71	35.67	7.32	0.88	2.39
1.00 - 2.49	40.34	33.78	8.07	1.13	3.24
2.50 - 4.99	36.27	35.36	10.11	1.30	3.11
5.00 - 7.49	31.94	34.66	11.29	1.25	3.64
7.50 - 9.99	30.98	36.00	11.09	0.96	3.22
10.00 - 14.99	28.00	33.47	10.33	1.13	4.74
15.00 - 19.99	27.05	32.55	11.01	1.19	5.53
20.00 & above	24.61	31.64	8.86	1.58	4.12
<u>Total</u>	<u>37.09</u>	<u>31.55</u>	<u>9.38</u>	<u>1.19</u>	<u>3.37</u>

* Table 33 from page 97 and Table 34 from page 98.

and kitchen gardening, sewing persists. Col. 5 is inexplicable. Many other surveys (Hart* Hayami, Migreavey et al) (Ref. 2) have pointed out the inverse relationship between assets/income and FPR.

To return then to the question posed in para 2.3 it appears there is some kind of strong cultural mode operating in the "Eastern Region" - as grouped by us, that is West Bengal, Bihar and Orissa; with West Bengal showing these characteristics more acutely than in the other two. This cultural mode tends to inhibit women from taking up work-styles which are similar to men in the Eastern Region. The term work-style is used as it is not merely a case of sex segmentation in activities, as Rajasthan labour is also sharply sex segmented as will be seen in Section 3, but also whether they work outside house; or for others than self or own family, as well as are willing or unwilling to accommodate certain cultural expectations e.g. tedious home processing of daily food.

- 2.13 But such a statement cannot fully absolve the other two factors : the demand side, i.e. opportunity for gainful work, the market pull, nor can it absolve measurement failure.
- 2.14 While given the small sample and the meagre knowledge we have of the region, this may be more in the form of speculation, it appears as if there is a relative lack of opportunity for employment in the profile of the West Bengal villages, compared to the Rajasthan villages. It will be seen in Section 3 that even males in these villages have less than a days work. There seem few options to the poor for scraping together a living. In the Bharatpur sample villages there are no landless. Land is of such poor quality that it has not much value. But everyone owns some, and finds some "allied" activities to scrape together a living. Not so in the Bhirbhūm sample villages.
- 2.15 There seems to be a marked difference between the two sample districts in the characteristics of poverty and unemployment, especially as seen from the point of view of options available for overcoming either condition. This regional characteristic has been recorded by others. What is being suggested here is that it would have its influence on the FPRs too.

* Patterns of Household/labour allocation in a Javanese village
Gilleen Mart.

- 2.16 It is probably true to say that in a generally low opportunity market, females would have less opportunity than males. But it is also true that in many cases even where there is low opportunity, females find ways and means to grasp a subsistence, find some means of self and family survival - outside formal avenues, behind doors, under the ostensibly available. They usually cannot give up and sit back. They will in other words make an opportunity where there is none.
- 2.17 This comes out sharply in the large percentage of females engaged in free collection in Table 3. in West Bengal. It also comes out sharply in the activity recorded of landless women in our sample (see Section 3).
- 2.18 The relevance of this still risky statement here is that it indicates measurement failure. It indicates that where females (or males or children) do not have 'public' identifiable participation in gainful activities, the measurement (enumeration) through questionnaire even if done by females, is not adequate. They may not be employed but they have a means of livelihood. They may not be seeking work/ or willing to accept work except of certain kinds, suitable to cultural inhibitions. But the more orthodox these inhibitions, more invisible they are in statistics (Ref.3).

3.0 TIME ALLOCATION DATA (Observation Method)

- 3.1 As mentioned earlier and in greater detail in Appendix I resident female investigators recorded time spent by all members of household above 5 "as they observed" through the chronology of a day of 15 hours on 2 consecutive days six times over the year. On an average over the 52 week period taking both States it is estimated that 40-45% of the recorded time was on recall and the rest observed.
- 3.2 It is possible that there are certain biases in recording e.g. over-emphasis of home-based economic and non-economic activities, or recall data being "habituated". But since the same house was visited only after 8 weeks the possibility of "habituated" recording by the investigators was limited. The data was coded into 42 activities (Master Card/codes in Methodology Appendix I) and computerised and various tables derived according to the study objectives.
- 3.3 Table 3.1 presents again a broad spectrum of data on participation rates from secondary and primary sources; as well as areas (State/Village/Sample households) levels. The definitions and denominators are such that calculations are comparable (See note on Table in Methodological Appendix).

The last column of this table is computed from grouping observed activities of all members of sample households involved at least in one hour, in each of the six rounds in gainful activity i.e. NSSO 0-71*. (Ref.7)

- 3.4 What is striking is Row 2 and Row 5, that is percentage gainfully active male population. Whatever the method of investigation, Decennial Census, NSSO, 27th or 32nd Round, whatever the area or level of estimation State or village or sample households, the figure for males in Rajasthan remains around 89-90%, and for West Bengal in the range of 81% to 93%.

Whereas figures for females and children vary according to methodology used; from 15% to 98% in the case of Rajasthan females and 8% to 62% for West Bengal; 6 to 56% for Rajasthan children and 3% to 45% for West Bengal children.

- 3.5 The obvious inference is that the gainful activity of females and children - the tasks they engage in, its location do not get into the

Table 3.1 : Work Participation Rates

	Secondary Data : The States					Primary Data : The Selected Villages			
	1	2	3	4	5	6	7	8	9
	Census 1961	Census 1971	NSS 27R '72-'73	NSS 32R '77-'78	ISS Census 1976	ISS Census 1976	NSS/ISS 32R 1977		Time Disposition 1976-77
				(i)	(ii)		(i)	(ii)	
<u>Adults (15-59)</u>									
<u>Rajasthan</u>									
1) Person	81	55	-	71	83	81	72	96	87
2) Males	95	92	90	89	89	89	90	93	94
3) Females	64	15	66	52	75	71	49	98	80
<u>West Bengal</u>									
4) Person	56	48	-	52	72	51	50	71	62
5) Males	90	84	81	87	87	91	91	91	93
6) Females	19	8	17	15	57	10	12	62	34
<u>Children (0-14)</u>									
7) Children	15	6	-	-	-	28	14	34	56
8) Males	16	8	-	-	-	29	14	20	45
9) Females	14	3	-	-	-	27	14	48	69
<u>West Bengal</u>									
10) Children	4	3	-	-	-	4	11	17	45
11) Males	6	5	-	-	-	7	18	18	60
12) Females	2	1	-	-	-	1	2	23	30

net cast by the existing investigation methodology, with the same precision as males.

- 3.6 It is not new to say that the difficulty in appropriately netting female labour is because of the nature/style of women's work. Many analysis of secondary employment data refer to the difficulties/problems posed by including female labour figures, and some even exclude it in trend analysis to avoid "irregularity". The time allocation data helped to understand what brings in this "irregularity".
- 3.7 Table 3.2 summarises the data collected and averaged over 6 rounds from 127 households and distributes it across activities in terms of hours per day, by age and sex. Time spent in personal activity has been excluded from this table, though it was collected, partly because of the focus of this paper and partly because it was based on recall data.
- 3.8 Predictable but interesting patterns emerge which are further specified in the Graphs. Graph A shows that females whether in Rajasthan, a high FPR State or West Bengal, a low FPR State, report at least 3 if not 6 hours per day in domestic work. In Rajasthan the women engage more in "outside home" activities even though there is strict, age-sex segmentation of tasks, whereas in West Bengal they engage in much more home-bound work. The same Table 3.2, row 4 and 5 shows the tasks females in the Rajasthan villages engage in. Cutting grass from fields and weeding fields adds up to 2 hours, going upto about 4 as the age level goes up. Cattle and goat grazing take about an hour. Both these are outdoor "male type" activities though regularly done by women and girls. (Mathia) (Ref.6)
- 3.9 Per contra, in the West Bengal sample home based production of such goods such as quilts and of all things, begging, is relatively more "intensive" (1 to 2 hours) than farm work for women. As mentioned earlier housework, especially cooking takes immense time (upto 4 hours) in West Bengal.
- 3.10 Yet in the Rajasthan sample the women, over different age groups, weave in and out of economic and non-economic activity with the same range of intensity as West Bengal women - nearly 4 to over 5 hours per day from about the age of 9-14(Graph A).

It is natural then that women are perceived and perceive themselves

Table 3.2 - Time Allocation Revealing Segregation of Activities by Age and Sex - West Bengal

Age	4-9		9-14		14-19		19-34		34-44		44-70	
	M	F	M	F	M	F	M	F	M	F	M	F
No. in Sample	146	124	152	151	81	88	191	257	150	124	127	140
Ploughing Digging	-	-	0.05	0.09	0.56	-	0.67	0.08	0.69	-	0.58	-
Sowing	-	-	0.03	-	0.32	-	0.43	0.04	0.29	0.08	0.32	-
Harvesting	-	-	0.63	0.03	0.84	0.05	0.98	0.16	0.81	0.07	1.10	-
Cutting grass from fields	0.10	0.03	0.56	0.10	0.19	-	0.18	0.06	0.11	0.14	0.31	0.01
Weeding fields	-	-	0.03	-	0.39	-	0.36	0.02	0.46	-	0.26	-
<u>* Total Agriculture</u>	<u>0.14</u>	<u>0.05</u>	<u>1.87</u>	<u>0.38</u>	<u>3.47</u>	<u>0.24</u>	<u>4.12</u>	<u>0.59</u>	<u>4.54</u>	<u>0.49</u>	<u>3.77</u>	<u>0.07</u>
Husking winnowing parboiling grain husking	-	-	-	0.09	0.14	0.14	0.26	0.17	0.19	0.43	0.24	0.27
Cattle/goat grazing	1.37	0.13	1.97	0.44	1.12	0.07	0.20	-	0.06	0.09	0.02	-
Cattle milking and feeding	0.08	-	0.52	0.12	0.68	-	0.10	0.02	0.08	0.03	0.05	0.03
<u>* Total Allied</u>	<u>1.58</u>	<u>0.14</u>	<u>3.36</u>	<u>0.80</u>	<u>3.15</u>	<u>0.30</u>	<u>0.77</u>	<u>0.27</u>	<u>0.47</u>	<u>0.69</u>	<u>0.37</u>	<u>0.41</u>
Producer of strawmats, patchwork quilts, ropes etc.	0.08	0.11	-	0.52	-	1.06	0.01	0.50	-	0.23	0.09	0.22
Work as domestic servant	-	0.07	0.02	0.60	0.01	0.29	-	0.03	-	0.04	-	0.06
Selling goods (stationary, grain, fish, vegetables, wood, etc.)	-	-	-	0.02	0.73	0.08	1.04	0.17	1.47	0.01	0.37	0.05
Manual labour	-	-	0.06	-	0.19	-	0.46	0.14	0.70	-	0.32	-
Begging	0.12	-	0.17	0.80	-	-	-	0.33	0.40	0.47	0.64	1.24
<u>* Total Non-Agricultural</u>	<u>0.21</u>	<u>0.18</u>	<u>0.31</u>	<u>1.72</u>	<u>0.99</u>	<u>1.44</u>	<u>1.62</u>	<u>1.20</u>	<u>2.58</u>	<u>0.76</u>	<u>2.16</u>	<u>1.59</u>
Cooking (grinding, cutting, chopping, cleaning)	0.01	0.05	0.01	0.70	0.10	2.30	0.09	3.67	0.68	4.40	0.06	2.33
Sweeping, washing, clothes and utensils	-	0.06	0.04	0.57	0.03	1.05	0.03	1.45	-	1.27	-	0.52
Fetching water	-	0.05	0.06	0.27	0.07	0.59	0.01	0.39	-	0.29	-	0.18
<u>* Total Household Activities</u>	<u>0.74</u>	<u>1.10</u>	<u>0.60</u>	<u>2.81</u>	<u>0.27</u>	<u>4.31</u>	<u>0.18</u>	<u>5.77</u>	<u>0.10</u>	<u>6.39</u>	<u>0.08</u>	<u>3.16</u>
Schooling	1.25	1.30	1.12	0.83	-	0.06	0.09	-	-	-	-	-
Playing - Children	2.80	3.28	0.73	0.72	0.06	-	0.01	-	-	-	-	-
Time spent in child-care	0.12	0.26	0.02	0.17	0.02	0.14	0.02	0.42	-	0.12	0.03	0.55
<u>* Total Child Activities</u>	<u>4.19</u>	<u>4.92</u>	<u>1.90</u>	<u>1.81</u>	<u>0.08</u>	<u>0.25</u>	<u>0.11</u>	<u>0.48</u>	<u>-</u>	<u>0.19</u>	<u>0.04</u>	<u>0.62</u>

NOTE : * Totals include activities not here listed.

Table 3.2 A - Time Allocation Revealing Segregation of Activities by Age and Sex - Rajasthan

Age No. of Sample	5-9		9-14		14-19		19-34		34-44		44-70	
	M 97	F 87	M 154	F 138	M 63	F 58	M 180	F 215	M 91	F 98	M 160	F 91
Ploughing Digging	-	-	0.05	-	0.57	-	0.75	-	0.87	-	0.79	-
Irrigation fields	-	-	0.10	-	0.39	-	0.48	-	1.61	-	0.70	-
Harvesting	-	-	0.05	0.08	0.14	0.25	0.10	0.04	-	0.25	0.06	0.21
Groundnut picking	-	0.34	0.02	0.28	0.16	0.50	0.04	0.21	0.10	0.18	0.13	0.31
Vegetable picking	0.04	0.15	0.02	0.21	-	0.05	-	0.12	0.17	0.28	0.01	0.22
Cutting grass from fields	0.11	0.55	0.32	1.65	0.56	1.29	0.51	1.38	0.57	1.69	0.48	1.02
Weeding fields	-	-	0.12	0.42	-	0.54	0.06	0.66	0.69	0.71	0.63	0.83
<u>*Total Agriculture</u>	<u>0.51</u>	<u>1.63</u>	<u>1.38</u>	<u>3.06</u>	<u>2.00</u>	<u>2.98</u>	<u>2.75</u>	<u>2.44</u>	<u>6.31</u>	<u>3.62</u>	<u>4.04</u>	<u>3.05</u>
Husking, winnowing, parboiling, grain husking	-	0.01	0.04	0.07	-	0.14	0.02	0.08	0.23	0.34	0.12	0.11
Cattle/goat grazing	1.12	0.87	0.61	0.81	0.54	0.20	0.35	0.12	0.56	0.05	0.30	0.18
Cattle milking and feeding	0.02	0.11	0.13	0.13	0.38	0.22	0.22	0.28	0.48	0.42	0.55	0.55
Making cow-dung cakes	-	0.16	-	0.33	-	0.20	-	0.18	-	0.17	-	0.10
<u>*Total Allied</u>	<u>1.15</u>	<u>1.28</u>	<u>0.94</u>	<u>1.60</u>	<u>1.28</u>	<u>1.09</u>	<u>0.68</u>	<u>1.13</u>	<u>1.38</u>	<u>1.38</u>	<u>1.21</u>	<u>1.43</u>
Service	-	-	-	0.06	1.29	-	1.35	-	0.36	0.03	-	-
Production of straw mats, ropes	-	-	-	0.02	-	0.02	-	0.02	-	0.03	-	0.09
Selling goods (stationery grain, fish etc.)	-	-	0.11	-	0.47	-	0.46	-	0.01	-	0.09	-
Manual labour	-	-	-	-	-	-	0.37	0.03	0.31	-	0.21	-
<u>*Total Non-Agricultural</u>	<u>-</u>	<u>-</u>	<u>0.16</u>	<u>0.04</u>	<u>1.76</u>	<u>0.04</u>	<u>2.70</u>	<u>0.10</u>	<u>1.00</u>	<u>0.04</u>	<u>0.37</u>	<u>0.09</u>
Cooking (grinding, cutting, etc.)	-	0.26	0.04	0.74	-	2.00	0.03	2.34	0.10	2.79	0.08	1.60
Sweeping, washing clothes and utensils	0.01	0.45	0.03	0.56	-	0.93	0.01	1.09	0.02	1.02	0.12	0.53
Fetching water	-	0.16	0.03	0.36	-	0.52	-	0.52	0.01	0.01	0.08	0.23
Fetching fuel	-	0.01	-	0.07	-	0.04	-	0.08	-	0.09	-	0.09
<u>*Total Household Activities</u>	<u>0.01</u>	<u>0.89</u>	<u>0.10</u>	<u>1.75</u>	<u>-</u>	<u>3.66</u>	<u>0.05</u>	<u>4.05</u>	<u>0.14</u>	<u>4.33</u>	<u>0.25</u>	<u>2.47</u>
Schooling	1.71	0.50	2.61	0.41	1.72	-	-	-	-	-	-	-
Playing children	2.55	1.43	1.14	0.24	0.39	-	-	-	-	-	-	-
Time spent in child care	0.16	1.71	0.40	1.23	0.20	0.31	0.07	1.13	0.17	0.69	0.15	0.91
<u>*Total Child Activities</u>	<u>4.42</u>	<u>3.77</u>	<u>4.15</u>	<u>1.97</u>	<u>2.33</u>	<u>0.34</u>	<u>0.08</u>	<u>1.17</u>	<u>0.18</u>	<u>0.63</u>	<u>0.15</u>	<u>0.92</u>

NOTE : *Totals include activities not here listed.

as mainly engaged in domestic activity. Even when they also do income earning as for example in Rajasthan, directly that is formally visibly or indirectly as in West Bengal, that is unpaid family labour, free collection of goods and services, they cannot but be seen as predominantly house-workers, which indeed they are. (Deere) (Ref.2)

3.11 - Comparison of data obtained from the questionnaire (census of households) and the time allocation data for the same household revealed that :

- a) In Rajasthan four out of the 37 women who reported as non-workers in the schedule (Code 42-43), were in fact spending upto 4 hours a day in activities such as groundnut picking and sowing the field. 9 others who reported as non-workers were grazing cattle and cutting grass for more than 1 hour. Thus 13 out of 37, at least 30% were outside the questionnaire net.

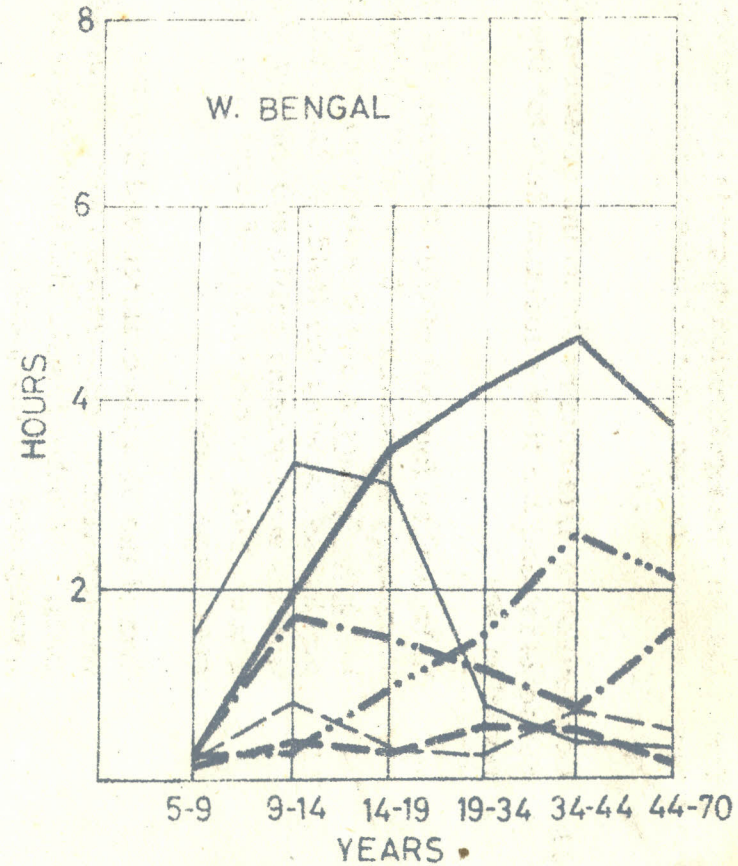
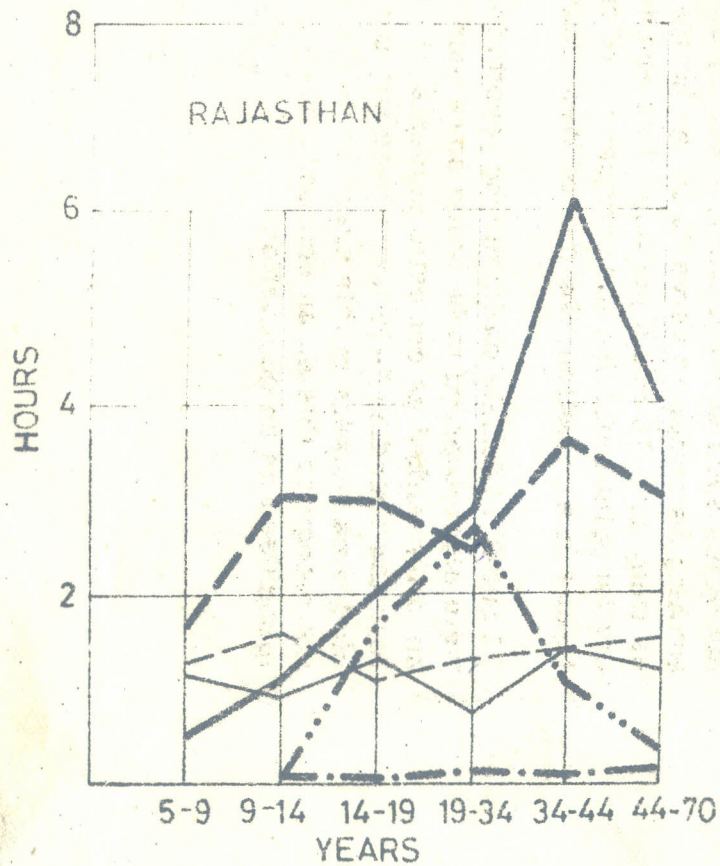
Two of the 36 male children and 2 of the 34 female children who reported as non-workers were observed to be hoeing the fields; 18 other female children were observed to be cattle grazing and cutting grass.

- b) In West Bengal, 20 out of 104 females who reported themselves as non-workers were observed to be working in activities such as winnowing, threshing and parboiling, working as domestic servants in the homes of others, for as many as 8-10 hours per day. This emphasises our earlier point regarding the seriousness of measurement failure in a situation like that of West Bengal.

15 out of 64 female children who reported as non-workers were also observed to be doing some gainful work. The majority worked as domestic servants, 10 females were reported spending 8-10 hours begging, but were not included as workers in this exercise as the NSSO does not recognize this as an economic activity though it is recognised as an occupation.

AGE/SEX SPECIFIC INTENSITY OF PARTICIPATION IN ECONOMIC SECTORS

— AGRICULTURE (MALE) — ALLIED (MALE) - - - NON AGRICULTURE (MALE)
 - - - " (FEMALE) - - - " (FEMALE) - - - " (FEMALE)



GRAPH A

- 3.12 Priority criteria, the concept of main activity, even majority time criterion puts them squarely into the category of domestic workers. The efficiency with which their 'other activity' —namely gainful activity — is netted depends on the degree of visible marketability of this activity. In other words, the fact that they are uniquely responsible for a zone or work, housework, gives them the distribution of being difficult to net.

Is there a methodological innovation which can more satisfactorily handle this phenomenon?

- 3.13 The NSSO tried a new approach in their 32nd Round. Follow up questions were addressed to all persons having a usual status of 01-93. In addition, further questions were addressed to persons engaged in domestic work (92) and those engaged in free collection of goods etc. in addition to domestic work (93).

- 3.14 "Information as to whether those categories as 'unemployed' or 'not in labour force' were engaged in more gainful activity of secondary importance in the sense that only minor part of their available labour time was utilised for the purpose, was also collected. It indicates for all-India and for different States the extent of subsidiary gainful activity performed by those rural females who have been classified by 'major' time criterions either 'unemployed' (81 and 82) or 'not in labour force' (92, 93 and 95-98) according to usual status" (1)".* (emphasis ours)

"It is clearly seen that the change in the procedure of classification in the 32nd Round survey has affected quite substantially the labour force participation rates of rural females, whereas, the effect was only marginal in the case of rural males. Further, the adjusted estimates are found to be fairly comparable with the corresponding 27th Round estimates." ** (3)

* Ref.1, page 53

**Ref.1, page 53

- 3.15 In Table 3.1 it will be noticed that FPR for adults given in Col.8 (32nd Round questionnaire survey conducted by us on sample households in 1977 Dec. See Appendix I) is greater than FPR given in Col 9 i.e. from time disposition data. In other words the additional females netted into labour force by the probing questions (i.e. codes 92-93)(Col.8) are greater than those netted by observation recording and grouping. (Col.9) All that the respondent has to say is 'yes' for Col.8, there is no time attached as in Col.9 hence a large number perhaps larger than accurate get netted. We would suggest that this kind of employment would not only cast doubt on the figure but would also suggest marginality to the workers who report as 92-93 after reporting as domestic workers.
- 3.16 Whereas if a time-value was inducted right in the beginning then instead of this two-step approach i.e. first segregate gainfully active from domestic workers and then probe to "recover" them 'serious and 'marginal' workers could be generally segregated in one step. In other words not having any kind of time attached to the answers to probing question nor having any conceptual links with the activity codes which are grouped as representing gainful activity, the tabulating from probing questions emphasise a certain kind of "subsidiariness" or "marginalness" which tend to lend women's activity a secondary role (See underlined works in Para 3.13). If however time is also recorded with activity then the relative "value" of that activity gets measured, "weighed", in relation to other activities as is visible in the Graphs.
- 3.17 A question could also be raised - why should the domestic workers and gainfully active worker be mutually exclusive. For example how would one of the sample women from Rajasthan respond to the question: Are you usually engaged in domestic work ? with priority time criterion ? They are doing both with equal interest but perhaps domestic work with greater regularity. A male doing perhaps less than 4 hours of gainful activity does not get confused whether he is doing more of this or of domestic work. His single role (as opposed to women's dual roles) is clear. Many males are also in the category of less than 4 hours. (Ref.5)
- 3.18 Another aspect of female participation in gainful activity that vitiates accurate enumeration (apart from the intensity) of work in domesticwork whatever the gainful activity status) is the intermittance across age-classes. Graph A describes the "Age cycle" of males and females in terms of economic activities.

It will be noticed that girls in Rajasthan at a very early stage are participating with intensity or 1 or 2 hours in agriculture, which is more than the boys of the same age. As girls come to the reproductive age they level off & the men cross over becoming more than half day and almost full day workers in agriculture. But in non-agriculture activities females are nowhere. The men are salaried workers in trade.

- 3.19 In the Bengal sample however females never get into it. There is a low profile of women in agriculture and allied occupations, getting some significance in non-agricultural activities but the intensity of work remains less than two hours. Graph A brings out the explanation for this. Bengali females are intensively engaged in household chores. (Household chores are sweeping, cleaning and cooking ones own food and, not home production).

- 3.20 Graph B shows that whether it is in Rajasthan or West Bengal, females exhibit double peak participation over the age cycle- which is typical of female labour. For example in Rajasthan females spend 3 hours in agriculture in the age group 9-14 and again 34-44 dropping down to 2-1/2 hours during the age 19-34, the peak reproductive period. Similarly in allied occupation they peak, pre-14 and again post 34 with the usual drop between 14-34. In Bengal where the main gainful activities in which female engage for more than one hour seems to be non-agriculture, there is again double peak, first in the age group 9-14 and then in the age group 44 and above. Even though intensity of participation of the Bengali female is very low and ranges within one hour, in the day, there is the usual double peak in agriculture and in allied activities.

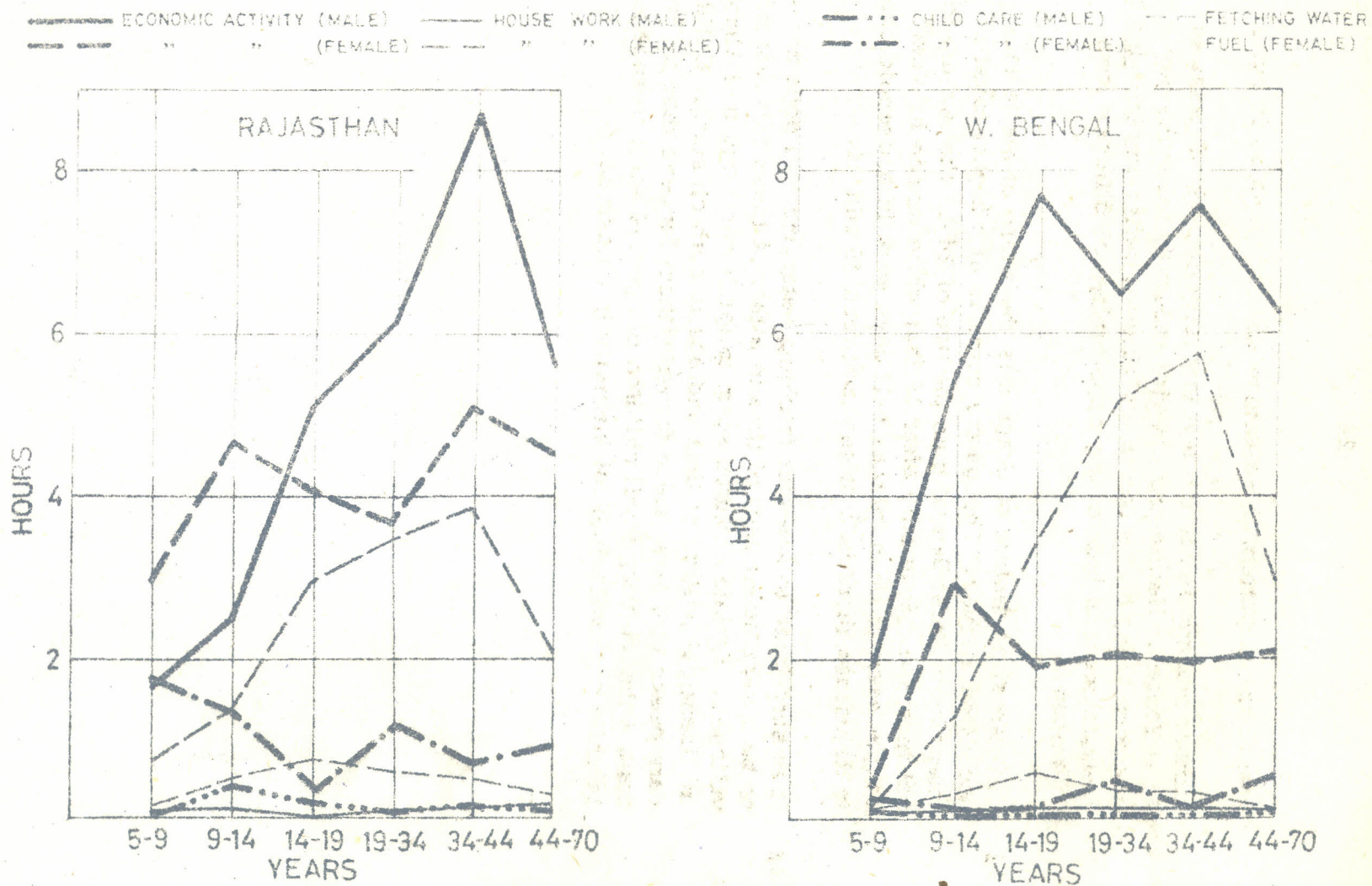
- 3.21 Whereas men who start later in Rajasthan go right upto more than 6 hours in the peak labour force age whether in agriculture or non-agriculture, they do have a double peak in allied activities which, it will be observed, is closely associated with agricultural seasons. (See Section 4). In West Bengal males again show the single peak with male children below 14 showing a similar profile to children below 14 in Rajasthan. Whereas in Rajasthan female children below 14 are doing upto 3 hours per day in agriculture, male children in West Bengal seem to be engaged in allied activities for more than 3 hours. In non-agriculture girls below 9 seems to come in to work for more than an hour, much earlier than boys who reach the same stage only when they are about 19. This is

similar to the pattern in Rajasthan amongst females in agriculture.

Another observation is the low intensity of work of males in West Bengal. Hardly any activity seems to cover the day - the maximum being half a day in agriculture, reflecting the kind of unemployment in lack of any opportunity, as different from Rajasthan.

- 3.22 An interesting feature of Graph A is the shape of the female housework curves. Though the curve is at a higher level of intensity in West Bengal upto the age of 14-19 the two are identical in shape. It is only after 19 that while women in West Bengal seem to do more than half days work in household chores, in Rajasthan there is a plateau between 19 and 44.
- 3.23 It is surprising to see that fetching water and fuel does not seem to be a significant user of time in either of these two sets of villages. Female children seem to fetch water and fuel almost in identical pattern of time and age in both clusters. Child care peaks at a later stage for Rajasthani females than for West Bengal though very small children of age 5-9 seem to engage in child care with unusual intensity in Rajasthan.

AGE/SEX SPECIFIC INTENSITY OF PARTICIPATION IN ECONOMIC AND HOUSEHOLD ACTIVITIES



GRAPH B

4.0 FURTHER RESULTS OF TIME ALLOCATION STUDY

4.1 In this section is presented further results obtained from the time allocation study showing the influence of the following factors on participation rates as well as intensity of work of all members of sample households - (I) seasons/rounds, (II) land holding, (III) number of infants in the household and (IV) religion and ethnicity.

(I) SEASONS/ROUNDS

4.2 Having examined the crop calendars of the two districts, coincidental, as it may seem, it was found that peak and lean agricultural sessions were close in timing. For example :

Rounds	Seasons	Month	Peak/ Lean	Bharatpur activity	Birbhum activity
I	1	Jan- Feb	Lean	-	Harvesting potatoes, Mustard, Sugarcane
II	2	March- April	Peak	Harvesting Rabi, Mustard, Wheat, Chana	Harvesting of Boro (summer rice)
	3	May- June	Lean	-	-
III	4	July- Aug.	Peak	Sowing Khariff Bajra/Jawar Gwar Phalli	Sowing of Aman Rice
IV	5	Sept.	Lean	-	Seed bed for winter vege- tables
V	6	Oct./ Nov.	Peak	Harvesting Khariff/ sowing Rabi	Harvesting Aman and Sowing of Boro rice

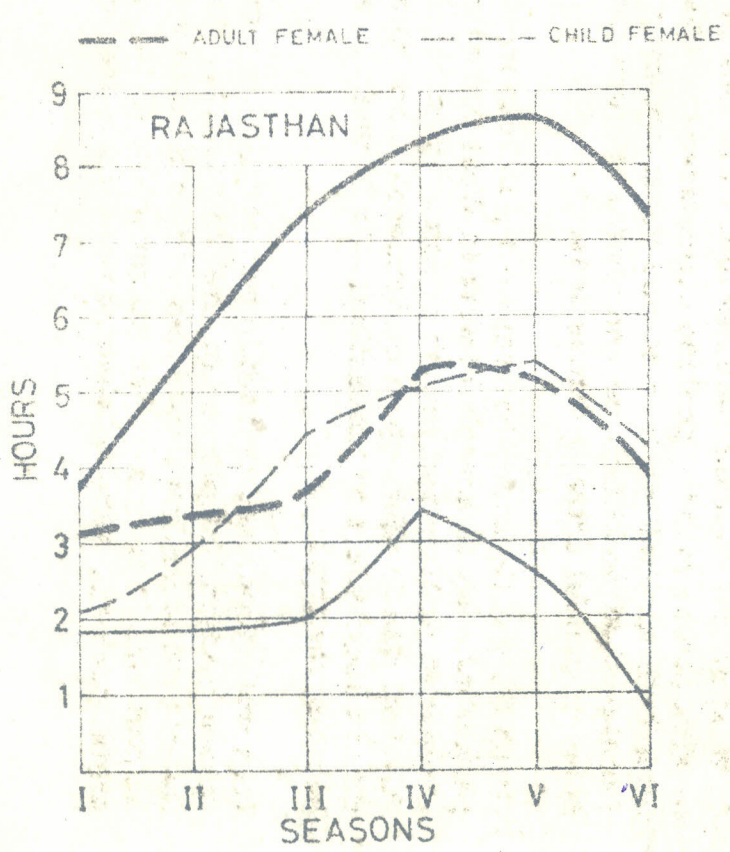
- 4.3 Our own rounds were not planned to coincide—their duration was determined by the number of sample households - and approximated a visit every 2 months, though there were serious variations due to monsoons, assembly elections, sickness of investigators and so on. But the rounds approximated, fortunately to the actual seasonal activity calendar given above (Para 4.2).

It will be noticed that in most of the seasonality graphs whether it is in hours per individual or in person percentages, there is a dip downwards towards the 6th round, which is the November-December sub-round especially in Rajasthan. This is due to an error in the field investigation and not part of the observed phenomena. The questionnaire for the last round was changed in the hope that it would improve efficiency. Instead of using the schedules, investigators were asked to record activities in given time intervals, they were asked to record time against activities. As a result investigators split the 1/2 hour intervals and started to record minutes with a time piece leading to a break-down of comparison and difficulties in coding and tabulating.

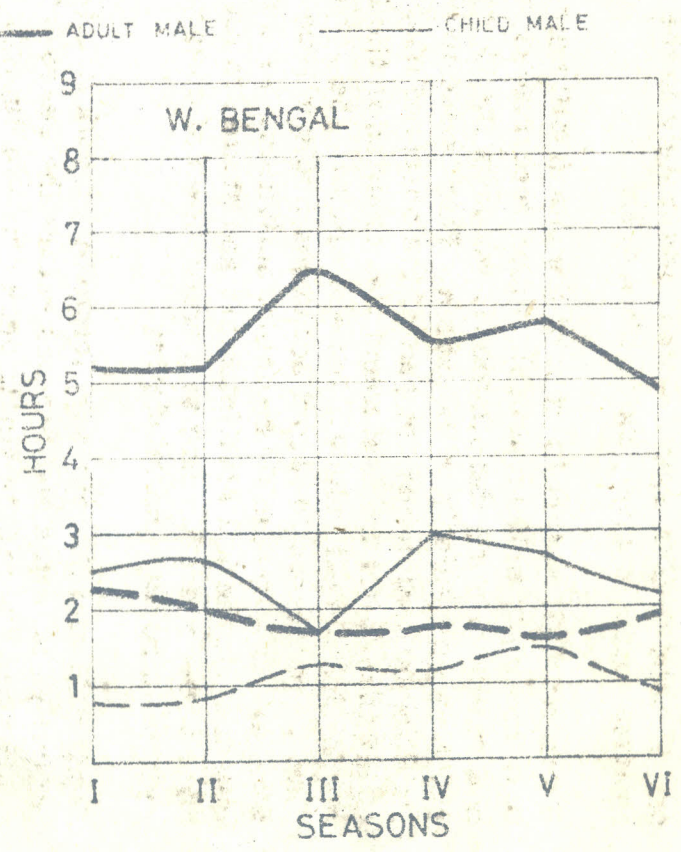
- 4.4 Graphs C1 and C2 represent intensity of work in total gainful activities of males and females across the seasons/rounds. The graphs show a smooth single peak curve in Rajasthan suggesting that there are no seasonal cycles, but there is a steep rise and a kind of plateau at more than half a day for all male and female adults, and female children, coinciding with sowing and harvesting. In West Bengal however males exhibit variations in the intensity of work across rounds, peaking during sowing of Aman rice. It has often been noticed that men do rice transplanting in West Bengal. Females show no difference and remain at a low range of 1 to 2 hours of gainful activity across seasons.
- 4.5 Graph C3 and C4 show the seasonality in household work. Females peak marginally in household work in West Bengal coinciding with harvesting of Aman and sowing of Boro. In Rajasthan again the very marginal rise in hours spent on household work coincides with the rise in hours spent on harvesting. Could there be a relationship between the two?
- 4.6 It is well recognised that while harvesting or any other peak farm-income activity is going on in rural households, there is also feeding of farm hands (own and hired). This for obvious reasons would be particularly intense in landed households. The processing of grain, cooking, serving/washing involved in feeding of farm hands

SEASONAL INTENSITY OF PARTICIPATION BY AGE/SEX AND ACTIVITY

GAINFUL EMPLOYMENT



C-1

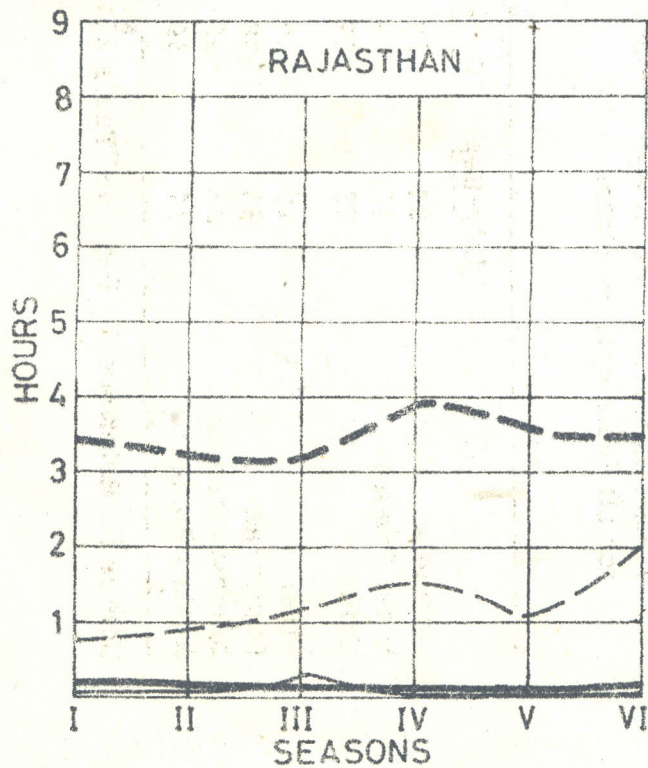


C-2

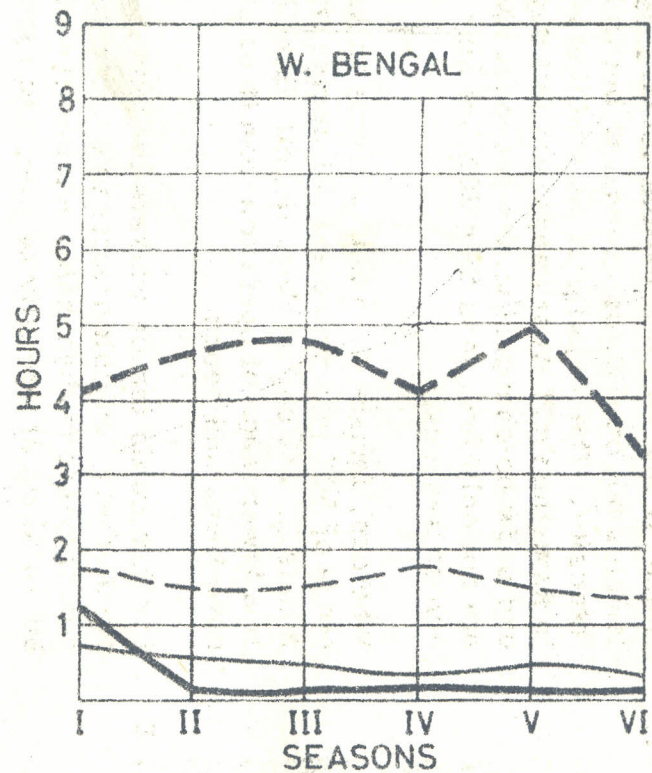
SEASONAL INTENSITY OF PARTICIPATION BY AGE/SEX AND ACTIVITY

HOUSEHOLD ACTIVITY

— ADULT FEMALE
- - CHILD FEMALE
— ADULT MALE
— CHILD MALE



C-3



C-4

is usually done by women, though unpaid, when done by family members. It is possible that this explains the coincidence between peak for 'house-work' and peak for gainful activity.

- 4.7 Graph D1 and D2 describe the actual participation rate of males and females not only across seasons, but in half-day measures of intensity. The majority of male workers (70%+) in our sample both in Rajasthan and West Bengal are full day or $\geq 1/2$ day workers and show no changes across seasons. Male $< 1/2$ day workers are not only few, less than 20% but also do not have much variation across seasons.

Whereas, female ≥ 4 hour workers in Rajasthan who are in the range of 50% or more do exhibit cycles in participation rates, so too female $< 1/2$ day workers in both Rajasthan and West Bengal are at a lower range of operation than their sisters in Rajasthan, but do have leans and peaks.

- 4.8 In other words female workers respond to seasonality or put in another way, exhibit greater unsteadiness in participation rates across seasons than males whether it is full day or $1/2$ day workers. But in terms of intensity of work there are no clear cycles.
- 4.9 The NSSO 32nd Round gives percentage rural females working over 4 rounds. Table 4.1 again gives data for the selected States. There is not much variation over the rounds.

Table 4.1 Percentage of rural females working according to Current Day Status to total female of age 5 years and above by sub-round for all India certain States

	Sub - Rounds			
	July-Sept	Oct-Dec	Jan-Mar	Apr-Jun
All India	24	23	22	21
West Bengal	10	9	7	10
Orissa	23	17	14	15
Bihar	16	15	13	13
Rajasthan	36	38	39	31
Madhya Pradesh	36	35	30	30
Andhra Pradesh	34	34	38	30

Source : Reference 1, Page 66 Table 20.

- 4.10 Could this difference in profile between Graphs D1 and D2, and the NSSO Table, suggest that only those who are in the 'formal' labour market have been counted by NSSO; and since there are more females in casual labour market there may be a large number of uncounted working females whose entry and withdrawal goes unnoticed due to poor enumeration methodology? It would have been useful to have similar data for males from the 32nd Round. Then it could be seen if there is measurement failure in reality. But such data was not available.

(II) LAND

- 4.11 It will be recalled (Section 2) that in the Rajasthan (R) villages FPR was clearly inversely related to land ownership. In the West Bengal (WB) villages such a clear relationship was observed only amongst males.

In terms of intensity of work however the patterns are different. The landed females in the R sample show twice the intensity in terms of hours compared to the landless (LL). They also work more intensively at household activity. See Table 4.2. Graph E further illustrates the same point.

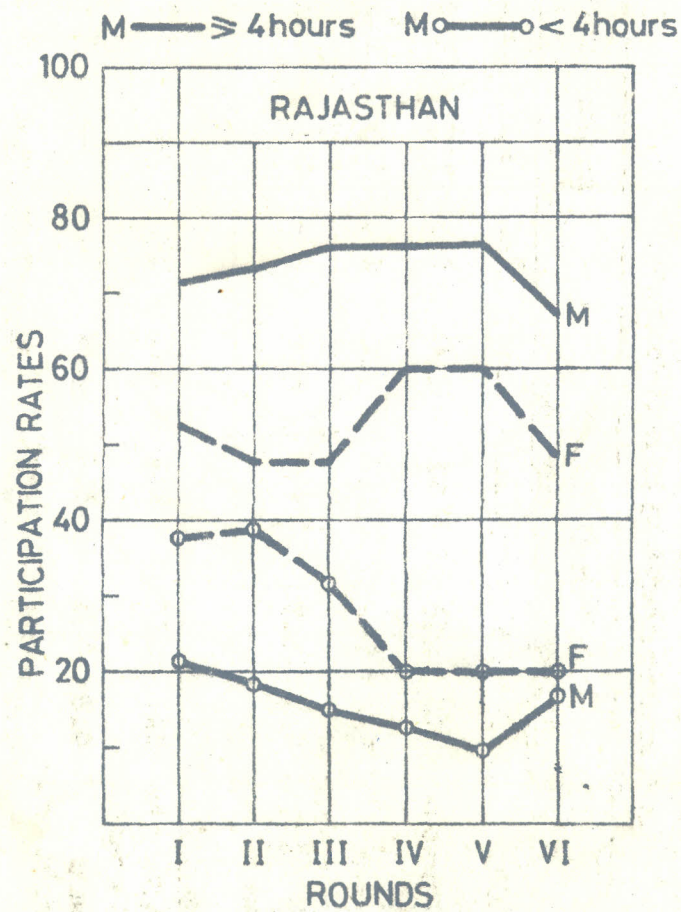
Table 4.2 Average Time disposition in hours per day of children and adults according to land-holding.

	Children (5-15)				Adults (15+)			
	Males		Females		Males		Females	
	LL	R	LL	R	LL	R	LL	R
<u>Rajasthan</u>								
Size of Sample	57	146	67	116	165	235	178	202
Gainful employment	2.7	2.7	3.8	5.6	6.5	8.8	3.8	6.2
Household activity, Child activity	4.5	5.7	4.0	5.6	0.5	0.8	4.8	6.4
<u>West Bengal</u>								
Size of Sample	121	187	112	163	209	340	223	386
Gainful employment	4.2	3.5	2.7	1.2	7.5	6.5	2.3	1.7
Household activity	3.5	3.8	5.0	5.4	0.3	0.2	5.3	5.6

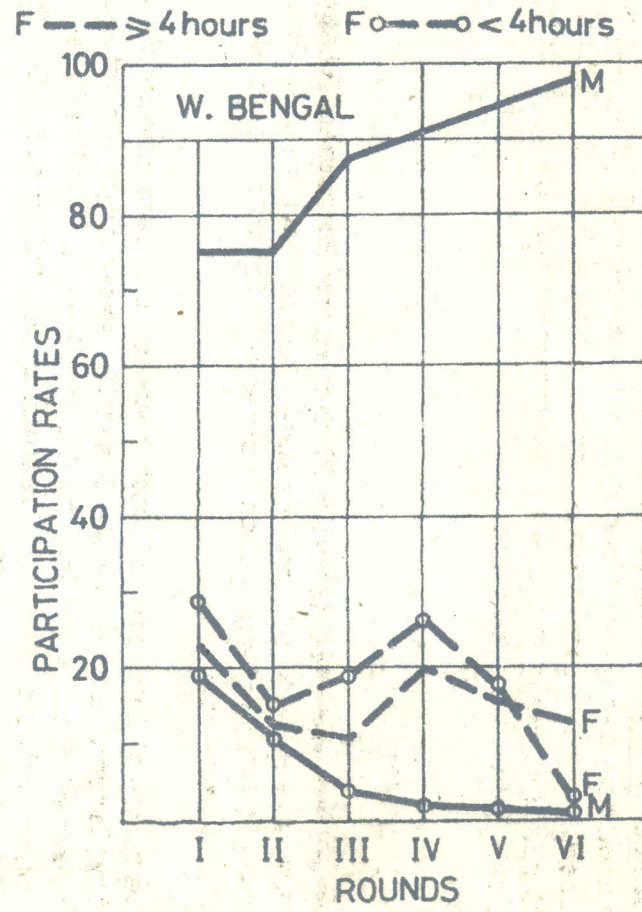
The Muluk profile of time disposition underlines the same point (Appendix III).

GRAPH-D: PERCENTAGE OF WORKERS < 4 hrs, ≥ 4 hrs

ACROSS SEASONS/ROUNDS

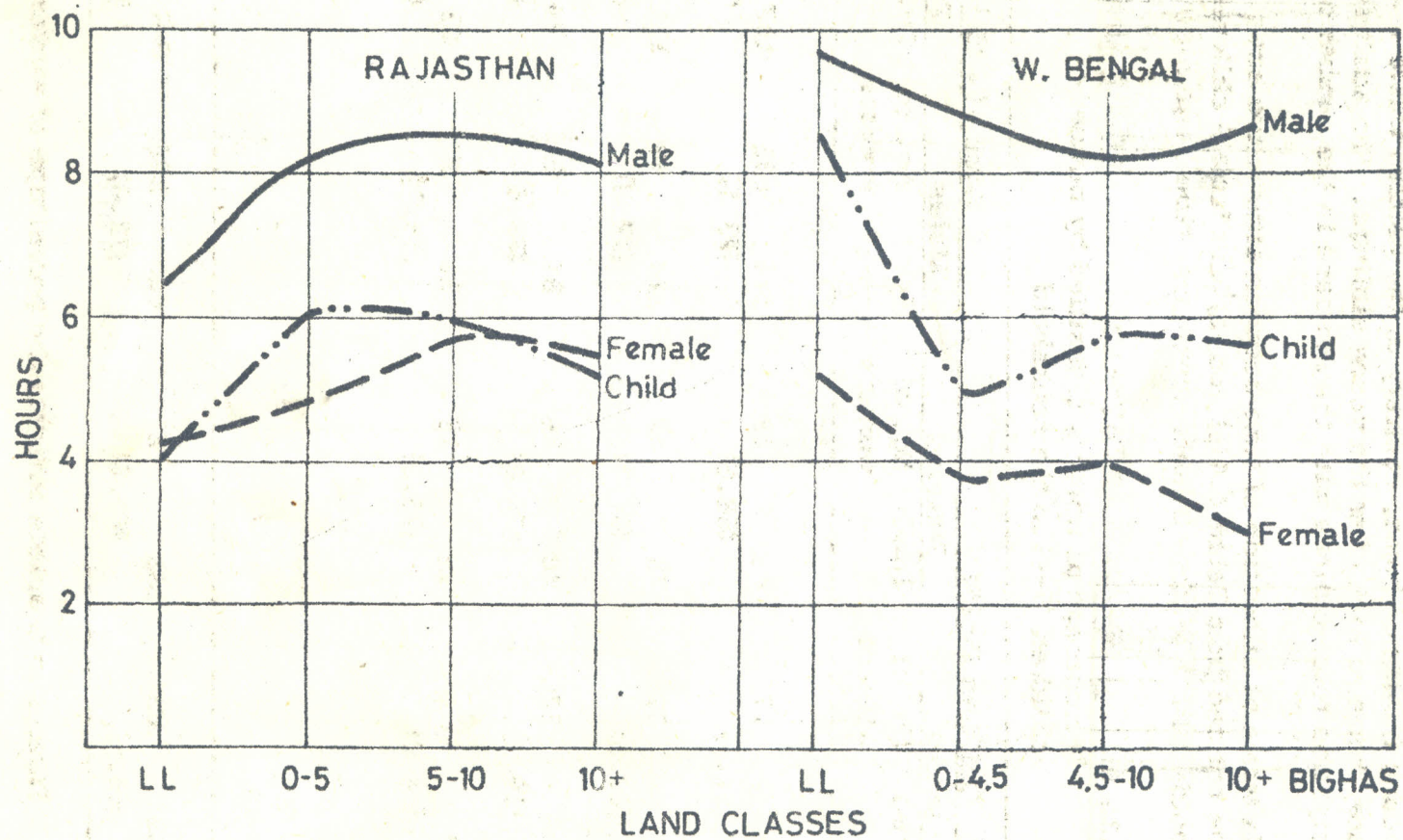


D-1



D-2

GRAPH-E: AGE SEX SPECIFIC INTENSITY OF WORK BY LAND CLASSES



(III) NUMBER OF INFANTS

- 4.12 Table 4.3(a) and (b) emphasise the phenomena of female children substituting for their mothers in gainful activity, when there are young infants at home, contrary to the pattern where female children stay home to look after the young siblings. The adult female participation rate declines with the increase in the number of infants.

In terms of allocation of time between alternative activities it might be noticed from Table 4.4(a) and (b) that female children of households with 2 or more infants spent more time in gainful activities.

Table 4.3a RAJASTHAN
Percentage of workers classified by number of children (0-4) in the household

	Children (5-15)				Adult (+ 15)			
	Males		Females		Males		Females	
	Total	No. of workers	Total	No. of workers	Total	No. of workers	Total	No. of workers
0	33 (51.5)	17	46 (58.6)	27	144 (73.6)	106	117 (66.6)	78
1	87 (42.5)	87	73 (64.3)	47	114 (72.8)	83	126 (80.9)	102
2	69 (39.1)	27	48 (75.0)	36	84 (73.8)	62	74 (78.3)	58
3	14 (14.2)	2	16 (75.0)	12	58 (63.7)	37	63 (57.1)	36
4	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-
Total	203 (40.8)	83	183 (66.6)	122	400 (72.0)	288	380 (72.1)	274

Figures in brackets indicate the percentage of workers.

WEST BENGAL

Table 4.3b Percentage of workers classified according to number of children (0-4) in the household

	Children (5-15)				Adults (+15)			
	Male		Female		Male		Female	
	Total	No. of workers	Total	No. of workers	Total	No. of workers	Total	No. of workers
0	120	64	121	45	265	174	272	123
	(53.3)		(37.1)		(65.6)		(45.2)	
1	136	66	99	15	186	109	210	91
	(48.5)		(15.1)		(58.6)		(43.3)	
2	46	18	49	16	53	50	88	31
	(39.1)		(32.6)		(94.3)		(35.2)	
3	6	5	6	0	25	18	39	12
	(83.3)		(0)		(72.0)		(30.7)	
4	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-
Total	308	153	275	76	549	431	609	257
	(49.7)		(27.6)		(78.5)		(42.2)	

Figures in bracket indicate percentage of workers

Table 4.4a

RAJASTHAN

Time disposition of children and Adults Classified by number of children (0-4) in the households.

	Children				Adults			
	Male		Female		Male		Female	
	0-1	2-9	0-1	2-9	0-1	2-9	0-1	2-9
No. of children (0-4)								
Total in sample	12.0	83	119	64	258	142	243	137
Agriculture	1.31	1.04	2.40	2.84	4.71	9.38	2.99	2.46
Allied	1.50	0.82	1.56	1.90	1.10	1.42	1.40	1.15
Non-Agriculture	0	0.27	0.02	0.02	0.70	1.01	0.06	0.09
Gainfully Employed	2.81	2.13	3.98	4.76	6.51	11.81	4.45	3.70
Household activities	0.05	0.13	1.51	1.25	0.14	0.08	3.85	3.79
Child activities	4.64	4.75	2.58	3.08	0.49	1.25	0.66	1.59
HHA & ChA	4.69	4.88	4.09	4.33	0.63	1.33	4.51	5.38

Table 4.4b

WEST BENGAL

Time disposition of children and adults classified
by number of children (0-4) in the households.

	Children				Adults			
	Male		Female		Male		Female	
	0-1	2-9	0-1	2-9	0-1	2-9	0-1	2-9
No. of children 0-4	0-1	2-9	0-1	2-9	0-1	2-9	0-1	2-9
Total in sample	256	52	220	55	451	98	482	127
Agriculture	1.10	0.78	0.23	0.21	4.09	3.89	0.47	0.14
Allied	2.61	1.90	0.31	1.21	0.96	0.82	0.41	0.33
Non-Agriculture	0.32	0	1.13	0.80	1.76	2.16	1.39	0.62
Gainfully Employed	4.03	2.68	1.67	2.22	6.81	7.32	2.27	1.09
Household activities	0.73	0.34	2.18	1.48	0.17	0.12	3.16	4.71
Child activities	2.80	3.86	3.08	3.72	0.07	0.04	0.32	0.77
HHA & CHA	3.53	4.20	5.26	5.20	0.24	0.16	3.48	5.48

(IV) RELIGION AND ETHNICITY

- 4.13 a) Ethrampura, one of the 3 sample villages in Rajasthan was a village of Mines, a scheduled tribe of Rajasthan (see Appendix 2 for details on the village). Taking this as a basis of classification table 4.5a is constructed, showing a markedly higher FPR than MPR amongst tribals - females, adults and children. Amongst the females, unlike the males, it is also greater than FPR amongst non-tribals. For males however the PR amongst the non-tribals is greater than amongst tribals. This seems to illustrate the fairly well established finding that tribal women work as hard and prominently, if not harder, than their men (See Table 4.5b for participation rates, and 4.6 (a & b) for time disposition across sectors).
- b) The sample villages in West Bengal had one village Kuita which was 95% and two proximate villages with Muslim minority population. As explained earlier the villages were chosen in order to have this kind of additional parameter.

FPR amongst Muslims is $>$ FPR amongst Hindus, both adults and children. This may appear strange but it can be seen from the next table 4.6b that the Muslim women are in non-agricultural activities, which in these villages was straw mat making, a home-bound but tradeable economic activity. Muslim males were in agriculture and in this non-agricultural activity with 1/2 and 1/4 day intensities.

Table 4.5a Percentage of Workers Classified by Ethnicity
(Rajasthan)

	Children (5- < 15)				Adults (> 15)			
	Males		Females		Males		Females	
	Total	No. of workers	Total	No. of workers	Total	No. of workers	Total	No. of workers
1 Tribal	44	14	34	26	71	45	51	41
	(31.8)		(76.4)		(63.4)		(80.4)	
2 Non-Tribal	159	69	149	96	329	243	329	233
	(43.3)		(60.4)		(73.8)		(70.8)	
Total	203	83	183	122	400	288	380	274
	(40.9)		(66.6)		(72.0)		(72.1)	

Table 4.5b Percentage of Workers Classified according to Religion
(West Bengal)

	Children (5 - < 15)				Adults (> 15)			
	Males		Females		Males		Females	
	Total	No. of workers	Total	No. of workers	Total	No. of workers	Total	No. of workers
1. Hindu	100	53	98	17	179	130	162	56
	(53.0)		(17.3)		(72.6)		(34.5)	
2 Muslim	208	100	177	59	370	301	447	201
	(48.0)		(33.3)		(81.4)		(44.9)	
Total	308	153	275	76	549	431	609	257
	(49.5)		(27.6)		(78.5)		(42.2)	

Figures in brackets indicate percentage of workers.

Table 4.6a Average Time Disposition in hours per day of activities according to ethnicity (Rajasthan)

	Children (5 - < 15)				Adults (> 15)			
	Males		Females		Males		Females	
	Tribal	Non-Tribal	Tribal	Non-Tribal	Tribal	Non-Tribal	Tribal	Non-Tribal
No. of Sample	44	159	34	149	71	329	51	329
Agriculture	0.81	1.30	4.02	2.22	3.61	4.79	4.36	2.59
Allied	0.90	1.31	1.69	1.67	1.81	1.08	1.78	1.31
Non-agri.	0.00	0.14	0.00	0.03	0.02	0.97	0.00	0.08
Gainfully employed	1.71	2.75	5.71	3.92	5.44	6.85	6.14	3.98
Household activities	0.03	0.09	1.50	1.40	0.10	0.11	3.50	3.87
Child activities	5.10	4.56	1.78	2.98	1.55	0.14	0.42	0.99
H.C & C.A.	5.13	4.65	3.23	4.38	1.65	0.25	3.92	4.86

Table 4.6b Average Time Disposition in hours per day of activities according to Religion

	Children				Adults			
	Males		Females		Males		Females	
	Hindu	Muslim	Hindu	Muslim	Hindu	Muslim	Hindu	Muslim
No. of sample	100	208	98	177	179	370	162	447
Agriculture	0.89	1.13	0.31	0.19	3.48	4.33	0.85	0.23
Allied	3.46	2.03	0.50	0.50	1.21	0.82	0.27	0.46
Non-agriculture	0.04	0.37	0.08	1.55	1.69	2.02	0.49	1.50
Gainfully employed	4.39	3.53	0.89	2.24	6.38	7.17	1.61	2.19
Household activities	0.18	0.90	2.62	1.72	0.23	0.10	5.45	4.97
Child activity	3.62	2.68	3.50	3.05	0.14	0.02	0.38	0.43
HC&CA	3.80	3.58	6.12	4.77	0.37	0.12	5.83	5.40

5.0 REVIEW

- 5.1 The data/relationships described so far or the insights or hints they offer would probably be weakened if they are over exploited by deriving strong conclusions or making strong assertions. However, these small sets of data only re-affirm what is now being observed and reported upon from other quantification exercises ; from other researchers' insights and doubts. (See reference list) .
- 5.2 Some of the statements most commonly made, some of the areas usually demarcated for reform in female labour force measurement and analysis are - under-enumeration, inadequate attention to unpaid family labour, home production and household work ; and the relationships between these. (Ref. 2, 8, 9, 10)
- 5.3 Some of the reasons given for this situation are poor **conceptualisation** of female work styles, mistaken perception of female economic roles by respondents and interviewers. Amongst the tools suggested for correcting this situation are recording of activities in various ways of detailed specification/identification, criteria for groupings/classification; ways of measuring them for instance through time, apart from money and units of output and so on. (Ref. 2, 5, 6, 10a, 10b, 11, 12).
- 5.4 The field investigation described in this paper highlight some of the points. They emphasise :
- i) that identification of gainfully active persons through observed recording of their activities when matched with figures given through identification, through questioning, yielded a higher figure (Table 3.2) as anticipated. This comes out not only for females but males, and especially for children though the difference was less for males than females and children ; it was also less in a State where female work styles were closer to male work-styles than in another State where women were more home-bound. In other words, that the standard employment/unemployment questionnaire based investigation revealed under -enumeration.
 - ii) On the other hand canvassing of the NSSO 32nd Round questionnaire on sample households, and adjusting the figure of economically active persons with the additional numbers

released from the probing questions, by the time allocation data, also yielded a higher figure, but much higher. This suggests that there may be over-enumeration; if there is no "control", by use of even a minimal time criterion of 1 hour over a reference week, or as in the case of the time disposition study 1 hour on the day observed, 6 times in the year.

- iii) that whether the investigator is male or female, the questionnaires currently being used - with the activity codes, their classification and the associated instruction to investigators - create some confusion especially in relation to female work.
- iv) that the main reason for this difficulty is the strong regular engagement of women in housework. Voluntary withdrawal notwithstanding (i.e. whether housework is extended and shrunk in response to labour demand), time is indented, usually for 1/2 a day or more, in the category of activities called domestic. This clouds clarity of reporting main activity by female even if they are doing other activities, say gainful, for 3 to 4 hours or more. In other words the dominance of domestic work would lead to under-reporting of other work.
- v) that another reason for under-enumeration is the work styles of women - which are determined by history, biology, attitudes - a whole package. These work styles which are characterised by inter-mittent participation over life cycle, as well as over a day or week; contribution to a productive activity but at the processing/pre-marketing, less visible monetised stage; intermingling of production for self-consumption with production for sale - are not easy to disentangle, and the existing designs do not capture them.
- vi) that resource base of households as well as **their** religion/culture, size of family, number of infants all affect female labour participation more than male. The degree, the ranking of one over the other, would perhaps vary with region, land ownership patterns - as well as the perception of opportunity. In other words, the supply side factors play a more important role in female labour supply than in male labour supply. The

demand side, market pull, wage rates, wage differentials, type of work also play their vital role, the two are also interdependent, but to a lesser extent than amongst males.

- vii) that more than women, children and their work is under reported. Yet children including those between 5 and 9 are strongly influenced by all the parameters described above i.e. culture, asset base, seasons, distribution pattern and employment opportunities. In fact children are even more vulnerable to these influences, as they are constantly being rearranged according to the pulls and pushes on the adults.

For example, responding to the strong cultural phenomena in West Bengal inhibiting women, including young girls from taking "male type" work, male children become very active. In our data this is even reflected in higher attendance figures for females than males in schools.

In Rajasthan the participation rate and the intensity of work per day of female children is almost as much as female adults. Not quantifying this large labour force would certainly cast doubt on analysis of trends and shifts in labour utilisation - apart from the straight forward social issue of noticing the phenomena in order to do the right thing by it. As an aside, it can be mentioned that our review of literature on child workers in India and region * including the information drawn from this investigation, leads us to believe that unless adults are provided higher wages amongst the working class, children will be put to work. They are the most adaptive, cheapest most exploited, potential, labour force.

- 5.5 When we started on the study one of the objectives that had been postulated was that after observing and recording all the activities of individuals, they would be grouped together as productive and non-productive in order to arrive at a wider definition of gainful activity. However, as the discussions and collaboration with the NSSO proceeded, including the field trials of NSSC questionnaires with women investigators in the sample villages it was found that the range of activities that are considered gainful by the NSSO gives enough scope - for netting all the large and small tasks in which women and children are engaged to be netted.

* Ref. 13,14

In addition, the criterion that even if a person is working for one hour in the reference "week they could be considered gainfully engaged, further widens the scope. Hence it appeared not so much a question of definition as of interpretation for the reasons mentioned earlier.

On Valuating Women's Work

- 5.6. Literature on women's work/and employment discusses unpaid family work - home production for self-consumption, other forms of input and its neglect. In this paper we have not covered this territory, though we could have if we had identified paid and unpaid sets of activities. The ILO has recently made a compilation of methodologies which could be used to measure/link this form of work. (Ref.10b)
- 5.7. The argument is that by not finding way of valuating these less marketed labour outputs women's labour is not adequately recognised. True, if the whole range of women's work was given a deserving value, then efforts would have been made to properly measure their contribution. In other words there is a close connection between valuation of all women's work and the measurement of labour force.
- 5.8. But the tricky question is what is the cut off point for any meaningful measure of labour force participation. It seems to us that the cut off point would depend on the purpose for which the data is to be used.
- 5.9. It is possible to suggest that if the information/data is required for employment, planning and promotion then income would provide the most meaningful basis of identification even of under-employment, unemployment rather than hours of work or subsistence production for self-consumption. From the point of view of those who are seeking employment that is seeking income, remuneration, means of livelihood, the attachment of payment to work may make the difference between work and employment.
- 5.10. However, if the data is being collected in order to analyse the factors affecting labour supply including constraints faced by specific sets of populating then labour force identification may have to use more sensitive concepts and measures including the

the time profile of individuals as revealed in Section 3.

- 5.11. Also if the data is being used to study trends not only in the aggregate but in terms of effect of sectoral growth, introduction of technology, various other inputs on labour utilisation it is extremely important to notify every person who is working even for self-consumption. Otherwise displacement, transfer of opportunity between sets of people on the basis of class, sex or age will neither be identified nor quantified and therefore it would be a quiet death by invisibility.
- 5.12. The issues of valuation runs through all these points but would require a different module not only of measurement through time spent but also valuation. Time itself can be used as a valuator. However, we tentatively suggest that valuating women's work is linked to but not the same as measuring labour force or unemployment/employment figures. All women's work yields an output but all women's work does not provide any income to the employed. (Ref.10a)

ON TIME ALLOCATION STUDIES

- 5.13 There is a growing body of literature which emphasises the importance of time as a measure. It's special relevance is underlined for situations where :
- a) a large share of activities is non-marketed and/or non-monetised,
 - b) the reward for labour does not reflect what it is ideally supposed to reflect, namely the value of that labour; wage rates/remuneration being extremely irregularly fixed.

Since these characteristics typify the resourceless households the value of this kind of method is even more relevant to study of poverty sets.

- 5.14 The uses of this method have been listed in many papers. Notably they are :
- a) to understand constraints, the lost opportunities of sets of the population who have limited or no access to basic amenities, e.g. time spent by women for fetching water and fuel, if not in other household activity, do deny them

access to avail of opportunities, on the presumption that it is there. Unless the lost opportunity is represented in time it does not get noticed. (Mukhopadhyaya, Swaminathan). (Ref.15,16)

- b) energy studies especially those associated with nutritional inputs and energy outputs. Time spent and the activity together yield some idea of physical labour inputs and are more meaningful for this range of quantification than wage. (Reddy, Battivala, Swaminathan) (Ref.16,17,18)
- c) Productivity improvement and technology application. In fact, when this study was being designed, it was intended that while recording of activity, the tools used for a particular activity would also be recorded. In the Rajasthan sample villages this was in fact done for a few rounds. The idea was to see how many hours were spent in an activity with a particular "tool" so that it could be assessed whether the time spent on that activity could be reduced or the output increased as a result of an improved tool. However, given the focus of this study, measuring outputs became too burdensome for the investigators, and was abandoned. (Ahmed, Reddy, Ramaswamy, Hart) (Ref.3,17,19,20)

5.15 Many of the uses mentioned above might require the anthropological method of recording of time even if it is for small samples, taken like laboratory specimen, in order to understand local phenomena. However, for getting a rule of thumb profile of activity patterns, in order to not only enumerate work but to quantify type or pattern of employment or unemployment, less rigorous time disposition modules could be adequate.

(Jain, Chand)

5.16 In several small sample household surveys conducted by us for understanding the impact of specific development programmes a block similar to the NSSO Block 5, namely recalling time disposition over the previous two days, immediately preceding the day of investigation was tried. All the activities were grouped into 3 broad categories, namely gainful activities, household activities and personal. The further division of gainful activity sectors was related to the specific occupation or production process that was being developed by the programmes.

Time was not restricted to any specific intervals such as 1/2 day,

full day but left loose. Most of the individuals in resourceless households work more than 8 hours in a day even at conventional gainful activity. The 8 hour day broken into 2 half days tend to approximate the labour force to salaried or wage labour. (Ref. 21-26)

- 5.17 However, a module could be added on to the existing questionnaire where time spent in a wide range of activity is slotted for all individuals (+5 years and above) in a household, say for yesterday and today over 4 rounds; on the basis of recall with activities, covering both 0-71, but also household, fetching water, fuel and so on. In this method perhaps not only workers in terms of one hour participation in gainful activity but workers in terms of fully employed under-employed as well as self-employed could be quantified on the basis of time.

To this time, if income, whether in cash or kind or output generated is added it may also be possible to tabulate workers by using the income criteria. The Phillippines household survey has attempted this in its economic activity block.

- 5.18 It is true that data required for program development would be of a different character from the data required for looking at aggregate trends to understand the impact of different types of sectoral or aggregate growth. It is also true that comparability will be affected every time there is a change in the questionnaire and the instructions to the investigators. However, it is also true that the impact of growth on the employment status of different sets of the population, not sectorally determined but determined in terms of different categories of labour, cannot be figured out with the existing data.
- 5.19 The case being made here is that time allocation recording need not only be through the anthropological method. Secondly when recorded through recall as an additional module the degree of error need be no more than is found in collecting other sets of data. On the other hand, it might provide the kind of information base which is necessary for understanding employment/unemployment both for trend analysis as well as programm development. A breakthrough can be achieved if some departures are made from the existing methodology even at the risk of not being able to track a trend.

REFERENCES

1. Bhattacharya Sudhir - Women's Activities in Rural India - A Study based on NSS 32nd Round (1977-78) Survey Results on Employment and Unemployment, NSSO, Dept. of Statistics, Government of India, June 1981.

This is a comprehensive report on labour force participation characteristics of rural females. It discusses the results of the special probing enquiry conducted in the survey on the nature and extent of under utilisation of available labour time of rural females and the activity behaviour of rural females who remain normally engaged in domestic activities.

2. Deere C.D. The Agricultural Division of Labour by Sex - Myths, facts and contradiction in the Northern Peruvian Sierra - Economics department, University of Massachusetts, Amherst.

The paper analyses the relationship between the agricultural division of labour by sex and the differentiation of the peasantry in Northern Peruvian Sierra. It suggests that underenumeration of females is due to the errors in classification as also investigation methodology. "If the first question asked in a Census question is that of the person's principal occupation, women reply "their home" In a patriarchal society, women's first responsibility is towards home and children, cultural modes require that women project what is 'right'. Even if the respondent is a woman she often under estimates the economically productive content of her work and considers it as part of her domestic duties. It was observed that while animal raising is considered gainful by most official definitions, most women did not report as workers, though it was observed through the time disposition study that their contribution was significant."

3. Hart Gillian "Patterns of Household Labour Allocation in a Javanese Village" - paper prepared for the A/D/C RTN Workshop on Household Studies, Singapore, August. 76.

The monograph presents primary data on labour allocation from a sample of 87 households in a Javanese village and postulates that

that labour force behaviour can only be adequately understood in the context of household decision making and the factors which determine the allocation of time of various household members among a range of activities.

A strong direct relationship between class status and the absolute and proportionate amount of time spent by women in housework exists. Women perform the bulk of housework, and there is little inter-class variation in the sexual division of labour in housework. The heavy involvement of landless and near-landless women in income earning activities relative to women in the land-owning groups is particularly marked in the 10-15 age group. The data indicates that the amount of time spent by Class III females aged 10-15 actually increased between the peak and slack months, and substantially exceeded that of females in all other age, sex and class groups in the latter period.

4.

Parthasarathy G - Rural Poverty and Female Heads of Households: Need for Quantitative Analysis.

Paper presented at Technical Seminar on Women's work and Employment, 9-11 April 1982; through cross tabulations of agro-economic Research Centre he develops the argument that the poorest labouring set, are women, from women - headed households.

5.

Fong Mencia - Victims of Old Fashioned Statistics : Institutions and Agrarian Reform Division, FAO, Rome. Reprinted from Ceres, the FAO review on agriculture and Development.

The paper suggests that a new statistical outlook is required using concepts, measures and methods of collecting and analysing data better suited to the work of women. She suggests that statistics on women may be improved by adopting the "gainful worker" approach in combination with the "labour force" approach, and the need to pay attention to what constitutes work in agriculture : and the timing of the survey or census. The author also emphasises the role of the interviewer in measuring women's work.

6.

Mathaei J.A. - The Development of the Female Labour Force in the United States : An Historical Investigation

Department of Economics, Yale University, 1977.

The paper examines the changing economic activity of women histo-

rically during the process of the movement of production out of the family relationships "Even when other social forces changed, the division very soon became a part of the idea of "women's nature" seen as naturally determined and fixed. In this way, custom has blended into biology and nature custom - as past social experience has played an essential role in conserving the content of womanhood throughout history".

7. Dandekar V.M. Some key results in Employment and Unemployment - NSSO.

The activities 01 to 71 are considered 'gainful' and a person engaged in any of them is considered 'working' or 'employed', the activities 81-82 connote 'Unemployment'. The employed and the 'unemployed' together constitute what is called the labour force, and persons placed in these categories are said to be in 'OR' to be participating in the labour force, the remaining activities, namely 91-99 are considered 'not gainful' and persons engaged in any of them are considered to be 'out of the labour force'.

8. Agarwal Bina 'Work Participation Women in Rural India, Some Data and Conceptual Biases IDS, University of Sussex (1979) :

The paper highlights that there is a dearth of empirical research and reliable data on rural women and suggests that there are conceptual bias that affect existing measurements of women's work participation. These include the fact that enumerators are male and information is collected from male head of households, reflects a male perspective, that there is an overall fuzziness that surrounds demarcation of domestic and productive work, that the predominance of female labour use and the seasonal character of agricultural men and women at a given point of time.

She concludes that there is a need for a sounder empirical base on the time criteria of women by socio economic class and capture the operation wise crop specific variations in women's work. She suggests that detailed region specific micro level research could provide clear definition of domestic and non-domestic work.

9. Sundar P: Characteristics of Female Employment Implications of Research and Policy, EPW Vol. XVI No. 19 May 9, 1981

The paper attempts to highlight how the women's employment situation differs from the male and why it is necessary to consider female

employment separately in formulating employment policies. The paper reviews the reasons why female employment and unemployment are under-studied. It discusses the factors determining female participation rates and the supply of female labour and how they are different from those determining male participation. It then goes on to discuss some of the distinctive characteristics of the demand for female labour and the implication of these differences for the design of programmes and policies affecting female employment.

10a. Beguin A. Preface to "Unpaid Work in the Household" by Goldschmidt Clermont L

Quoting from the World Employment Conference Beguin defines employment as "Yielding an output" and "Providing an income to the employed".

She says "In so doing, it was, no doubt rightly, placing emphasis on remunerative employment and on market-oriented outputs rather than on unpaid work in the subsistence sector or production for direct household consumption.

It is clear, however, that the household sector, the value of whose production has been estimated at 25% to 40% of the accounted for Gross National Product in industrialised countries, plays an extremely important role in satisfying many of the basic needs of the population and that this role is undoubtedly even greater in developing countries with their large subsistence sector. There has therefore been increasing interest in assessing the value in economic terms of the goods and services produced by households for their own use or consumption, as a contribution to measuring and, therefore, providing a basis for understanding some of the ways in which the market and non-market sectors interact, and the impact of these interactions on real household incomes and welfare.

10b. Gold Schmidt - Clermont. Unpaid work in the Household : A Review of Economic Evaluation Methods by ILO, Geneva 1981

Pointing out the need to recognise and integrate in economic analysis the unpaid productive activities performed in the household sector, this work reviews the different methods that have been used to measure these activities. To facilitate comparison with market oriented activities, non-market household work is sought to be

measured in terms of (a) Volumes of inputs and outputs, or (b) monetary values of inputs and outputs. A typology of evaluation methods is thus evolved and 75 research studies dealing with household production in industrialised societies are examined in this light.

The author concludes, "given the state of the art, no single evaluation method answers the needs of all evaluation purposes. It is possible, however, once the purpose of the evaluation has been defined, to devise a combination of methods for approximating, at least in order or magnitude, the relative value of unpaid household work compared to market work".

"How do market rigidities affect these transfers? What would the impact be, for instance, of a reduction of working hours on the labour supply, on the production of goods and services for self-consumption, on the consumption of market goods, on time available for leisure, education etc."

"The similarity between production processes occurring in the market and in the household is further underlined by the overlap between the two sectors : children are cared for, food is prepared, the ill are nursed, etc. as a result of paid and unpaid work inputs. Interactions between the two sectors are continuous : transfers of manpower from the household to the labour force (e.g. when former full-time homemakers take-up wage employment and reduce their work inputs in the home); transfer of production from the household to the market economy (e.g. when the same former full-time homemakers spend part of their wages in buying, on the market, goods or services they were producing previously); and, inversely, transfers from the market sector to the household. Although such interactions have been observed and to a certain extent analysed, the underlying mechanisms are not well documented".

11. King - Quizon E. Time Allocation and Home Production
In Rural Lagung Households. Symposium on Household Economics,
 Manila, May 1977. Union of Philippines, Quezon.

The paper views the household as an economic unit which maximizes welfare through the optimal use of total resources. It describes the decision making within the household by identifying determinants of the allocation of time among family members.

12. The Second Sex in the Third World : Is Female Poverty a Development Issue ?

Birdsell. N., McGreevey W :: (Prepared for the International Centre for Research on Women Policy Roundtable June 1978, Washington).

Highlighting the handicaps facing the poor women of the Third World Countries , this study deals with the questions : How do such women contribute towards economic growth. Female poverty is thus viewed as a development issue and several conclusions are drawn on the basis of number of case studies. It is found that a large percentage of women work in the 'informal' sector and there is a distinct preference for flexible working hours which facilitate household and childcare. When women work outside the home, there may be an adverse impact on the nutrition, health and education of children affecting in it, the quality of the human capital. Thus the author argues, if the working mother is relieved of the pressure of work leading to better 'mothering', she can make a positive contribution to economic growth.

One way of achieving this the author suggests, is increasing the productivity of men which ensures a higher family income and reduces the compulsions behind women's work.

"Much of this work of women is not subject to the market place of wages in which men place their services or the fruits of their labour. In censuses and employment surveys, where work has meant an activity producing each income, women have been treated inconsistently or overlooked altogether. The unpaid family worker in a small shop or a farm was the first casualty of the misleading statistical categories "employed", "unemployed".

The answer to such false divisions is the time-use survey - a careful check on how people in poor households use their time. Time is perhaps the most important - in the poorest households, the only - resource which the poor have available to them, US women work at home and outside the home an average of 6 hrs per day ; women in Bangladesh work 11 hours,

Time budget surveys demonstrate indisputably what employment surveys previously barely implied : Women make an enormous contribution to the real income and well - being of the poor.

14. Jain D., Chand M. Rural Children at Work. Preliminary Results of a Pilot Study. The Indian Journal of Social Work, Oct. 1979 Vol 2, No.2, Tata Institute of Social Sciences.
15. Mukhopadhyaya S. The Nature of Household Work Paper prepared for the Technical Seminar on women's Work and Employment April 1982
16. Swaminathan M. A Study of Energy use patterns of General Background aste for the Seminar on Women's work and employment April 1982.
17. Reddy A. ASTRA - Rural Energy Consumption Patterns - A field Study, Bangalore, Indian Institute of Science (1980).
18. Batliwala S. Rural Energy Scarcity and Nutrition - A new Perspective 1981

The calorie gap suffered by the low-income groups is an acknowledged phenomenon and the usual response is to advocate increased food intake through increased employment or to improve nutrition through supplementary feeding programmes and better health and sanitation measures. The author proposes a new approach - closing the calorie gap by reducing the energy expenditure of the target population specially the poverty households of rural areas. Field studies carried out by ASTRA are quoted to highlight the typical patterns of rural energy supply and consumption. The author suggests development of alternative energy sources and of appropriate technologies to save human energy use. can play a significant role in ameliorating malnutrition and ensuring better living for the nutritionally "vulnerable" sections - women and children.

19. Ahmed, Iftikhar, Technological change and the condition of Rural Women: A Preliminary Assessment (ILO, Geneva, 1978).

This paper examines cross-country evidence to study impact of technological change on the condition of rural women who usually play dual roles as housewives and as agents of production. **Empirical** data from underdeveloped countries are reviewed to arrive at a number of hypotheses including-

(a) technological change is usually accompanied by increasing work burdens for rural women and also by a decline in their income-generating activities; (b) their socio-economic status may affect the impact of such change; (c) rural women tend to be associated with sectors characterised by low levels of productivity and (d) women's access to technology, extension services and various inputs (physical, capital, skills etc.) is in no way commensurate to their role as a factor of production in the rural economy. Specific areas for research are then suggested, which would test these hypotheses and would fill the gaps in knowledge.

20. Ramaswamy N.S. Animals Carry India Foreward Soft Energy Note, Oct-Nov IV 1981.

21. Jain D - Milk Maids of Kaira Chapter in Women's Quest for Power, Vikas Publishing House, 20/4 Sahibabad, Ghaziabad, U.P. 1980.

A household survey was carried out covering 124 households in 10 villages of Kaira District,. The intention was to understand the role of women in dairying and the impact of the Anand Pattern on the women of dairying households. Within each village households were selected randomly from four asset categories to represent variations in household resources and therefore income.

The time pattern of women's work was recorded; on an average women, from landless households worked for 10-11 hour per day, but landless women who also combined agriculture worked for 2 hours more. These additional 2 hours seemed to be provided by cutting into time spent in domestic activity. An implication of this phenomenon was that dairying might be eroding the time available for activities such as child care, cooking etc. Yet it was possible that women of the non-dairying households were extending their time in household chores because they lacked an alternative gainful occupation.

22. Chand M, Baruah R - Employment Opportunities for Women in Forestry, Paper presented for the Seminar on Women's Role in Forestry convened by the FAO and Ministry of Agriculture, Dehradun, December 1980.

The paper was based on a survey of 65 tribal households spread over 8 villages in Betul district Madhya Pradesh. It described the tasks of women in forestry revealing the exploitation they suffer both at the hands of the forest officials and the middle men inspite of well intentioned policies. Recording time allocation provided a comparison of average hourly earnings in different occupations ranging from 0.20np collecting fire-wood normally done for 10 hours a day to 0.50. np. or nursery work done for 7 hours in the day.

23.

Impact on Women Workers - Maharashtra Employment Guarantee Scheme - A Study

The study was carried out on 180 respondents at eight work sites. Its aims were to assess the impact on the MEGS or (a) women's work, (b) their domestic/household life (c) worker's social household behaviour.

The time allocation data revealed the multiple nature of women's work. Domestic work seemed to take upto 4 hours for 62% of the workers whereas 32% reported over 4-6 in domestic work. The core group aged 30-49 also put in 2-4 hours of domestic work.

It was noticed that EGS workers reported working 8 hours at site compared to non-EGS workers reported working 6 hours. However, they spent 4-7 hours on domestic work. From this limited sample it could be suggested that EGS work does curtail hours that can be spent in domestic work.

24.

Income Generating Activities for Women - Some Case Studies. Prepared by the Indian Cooperative Union, sponsored by UNICEF, 1980.

The book describes 4 endeavours which have been effective in supporting women in their quest for income, these were the Lijjat Pappad Centre at Valod Gujarat, The Sarvodaya Sangh at Tiruppur, Tamil Nadu, The Dastkar Anjuman at J&K and the Sikki Kendras at Sunsand Bihar.

Household surveys which recorded time allocation were carried out at all 4 sites, to study the intensity of work in home based industries.

25.

A case study on the Social and Cultural Implications of Tasar Production for Tribal Communities, sponsored by the Swiss Development Corporation.

A field survey of 100 households in Chandrapur - Maharashtra has been done to find out if a Tussar development programme i.e. increased Tussar production in fact will improve the quality of life of the tribals. It seeks to answer whether Tussar production is suited for stimulating the progress for the tribal population especially the weakest, how far it will protect the integrity of the eco-system within which the tribal system operates and how far it will replace it with systems of dependency. (Ongoing) ISST.

26.

Integrating women's interests into a state Five Year Plan (Karnataka) sponsored by the Ministry of Social Welfare.

The study has been undertaken in Karnataka to find out to what extent development schemes have been utilised by the women. 1000 households have been surveyed in 2 districts of Karnataka, Dakshin Kannada a developed district and Gulbarga a backward district. Time allocation has been recorded. Results are awaited.

27.

We had submitted some similar suggestions to NSSO technical Committee - given below.

Suggestion for consideration for NSSO 38th R. Schedule
(Devaki Jain & Malini Chand) December 1981.

Indicate here time spent in following six activities according to
Codes A, B, C.

Sr.No. as in Block 4	Status		1 - Animal Husbandry - Pig, Cattle, goats & Poultry	2 Maintenance of building Repairs	3 Production of goods for self- use. Mats/Ropes	4	5 Fetching water	6 Fetching fuel	7 Domestic chores, cooking, washing, child care	Codes: 0 - < 2 hrs-A; 2 - < 4 hrs-B; > 4 hrs-C
	1									
	2									

Probing Questions :

1. What was the reason for your usual attachment to domestic duties -
Pressing need - 1
Non Availability of Gainful work- 2
2. Are you willing to accept gainful work at your household?
3. The nature of work acceptable to you (regular full time - 1,
regular part time - 2; Occasional full time - 3;
Occasional part time - 4).

Time disposition of persons in labour force
during the week ended on _____

Sr.No. as in block 4	Status (code)	Seventh day	Sixth day	Fifth day	Fourth day	Third day	Second day	First day

Additional Codes

1. Animal Husbandry (own)
 2. Maintenance of building/repairs
 3. Production of goods for self-use : mats/ropes/garments/cloth
-
4. Fetching fuel
 5. Fetching water
 6. Domestic chores : Cooking, washing clothes and utensils and child care.

ADDITIONAL REFERENCES

28. Opong C, - Family Structure and Women's Reproductive and Productive Roles :

Some Conceptual and Methodological Issues.

(World Employment Programme Research Working Papers, ILO, Geneva, 1979) .

This paper points out that our understanding and analysis of women's productive and reproductive behaviour will remain incomplete if we do not carry out more complex analysis of residential patterns and domestic organisation. This obviously needs a more 'synthetic' approach approach, combining concepts and techniques of several disciplines. The author discusses the deficiencies inherent in the use of the unitary 'household' model as an analytical tool in cross cultural research and argues that women are usually so influenced by conjugal and kin ties that the latter need special analysis. A new framework for such analysis is then introduced, visualising four possible alternative situations : (a) women sharing a particular domestic task or responsibility or right with both husband and kin, (b) With only kin, (c) with only spouse and (d) with no one, performing alone. This framework thus combines the study of the conjugal division of labour, power, rights and duties in each domestic area with analysis of the extent to which these are also shared by Kin groups.

29. Anker R, - Demographic change and Role of Women : A Research Programme in Developing Countries.

(World Employment Programme Research Working Papers, ILO, Geneva, 1978)

This paper seeks to evolve a research programme which will focus on an important socio-economic phenomenon in the developing countries- the interaction between changes in women's roles and changes in demographic behaviour (fertility, mortality, family structure etc.). An inter-disciplinary approach is considered suitable and three broad types of studies recommended : (a) collection and analysis of household survey data ; (b) collection and analysis of socio-anthropological data and, (c) analysis of urban labour markets. At least one major country study is advocated to represent four major regions (Latin America, Asia, Sub-Sahara Africa and the Middle East) and a number of smaller countries case studies envisaged to throw light on the functioning of urban labour markets and on policies adopted for improving women's role and status.

30. Krishna Raj M and Patel V - "Women's Liberation and the Political Economy of Home Work", National Conference on Women's Studies, April 1981

This paper focuses on the problems of definition, measurement and analysis of the nature of housework which is visualised as an economic category within the productive process of society. Discussing the socialist - feminist analyses of house-work, the author suggests that housework has an ideological function in perpetuating the relations of production and argues that women's oppression is not merely a cultural phenomenon, it has a material base in house-work, independent of her exploitation in the labour market.

31.

- Mukhopadhyaya S - Work and Women : Some Pertinent Issues

Stressing the difficulties inherent in applying the economist's definition of "Work" to the varied activities performed by women, this paper identifies two major problems concerning women and work at the macro level :

- i) problem of measuring the intensity of effort spent in both economic and the so-called non-economic activities, and
- ii) the problem of assessing sex-based discrimination prevalent in society to-day. This assessment could lead to greater societal awareness as well as to better legal provisions.

32.

- Jain D - Women's Employment - Possibilities of Relevant Research Paper prepared for KULU Women and Development, Copenhagen, 1980 published by APCWD, Bangkok.

Instead of discussing the dialectics surrounding women's employment, this paper highlights four ongoing projects which serve to reduce the hardships faced by women workers : (i) the Maharashtra Employment Guarantee Scheme, (ii) the UNDP project to Modernise the Woollen Industry in Jammu & Kashmir, (iii) the Amul Dairy Project and, (iv) the Karnataka Sericulture Development Project. Some of the important findings of this survey are :

- (a) There is need to collect task-specific work data for men, women, and children to classify population by assets held apart from the routine classifications;

- (b) while promoting employment through specific projects it is not only important to assess the number of man days generated but also to establish the specific identity of the actual beneficiaries;
- (c) in the choice of technology, the criterion of labour intensive should be further disaggregated into female and male labour intensive techniques ;
- (d) necessary changes must be introduced so that the implications of micro-surveys are fed back to the actual field situations , to produce a positive impact on the target groups and
- (e) the most vital concept that still needs exploitation through research is the concept of work .

The author concludes " the most significant way in which studies of women specially female labour and its employment can improve the conditions of women is to link the analysis and solutions to all other groups which suffer from such distress - thus making research on women the radical edge to social transformation " .

33. Mukhopadhyaya S - "Women Workers of India : A Case of Market Segmentation in the book Women in the Indian Labour Force , ARTEP , ILO , Bangkok , 1981

This paper points out that the concept of a homogenous labour market where all categories of workers are seeking work under similar market conditions is no longer realistic. Wages offered by employers are often influenced by parameters like race , sex , caste etc. apart from the value - productivity of the worker while the workers' participation behaviour is influenced by the knowledge of the significant role played by such parameters. Thus we have a situation of market segmentation where the labour market might consist of a number of submarkets which endorse certain sets of workers differentiated not by skill or productivity but by factors such as race , sex etc. This paper argues that the women workers of India also represent such a case of market segmentation. Sex-based earning differentials are identified as the first dimension of segmentation and substantiated by an analysis of micro-studies pertaining to different regions of India. The same segmentation is revealed by the peculiarities of the female occupational structure: In the rural sector more than 80% of women workers are concentrated in agriculture and allied activities while in

the urban sector they crowd the lowest paid jobs whether in the informal or in the organised sector. So far as the labour force participatory behaviour of female workers is concerned, it is influenced by many more variables than in the case of males e.g. no. and age of children, extent of domestic work etc. Available data for India show that the age specific female work participation of rural women is uniformly associated with higher rates. As regards women's own perception of their role, most studies indicate that their economic role is perceived more as one of supplementing the family income rather than as one leading to 'emanicipation' or equality of status.

34

Jain D, Chand M - 'The Importance of Age and Sex Specific data in Household Surveys' for the Regional Seminar on Household Surveys in Asia, ESCAP, Bangkok 1980.

The main conclusions that emerge from the paper are:

- a) that all surveys have an implicit value base which needs to be explicitly stated as a preamble to the surveys;
- b) that household surveys should take note of the interests of women and children and provide for appropriate investigations and appropriate tabulations by age and sex;
- c) that the schedules should be so designed as to capture the processes, systems and conditions of the people of these, as yet agricultural and tradition-bound societies, and investigate in particular women's participation in developmental programmes and the benefits derived therefrom;
- d) that in order to probe the pattern of work and leisure among women, time disposition studies be undertaken with the aid of appropriate schedules that would accurately capture the patterns and the regional variations therein; and
- e) that wherever necessary, female investigators be used for the collection of data from women on matters concerning them.

35

Klevane, Wanda Minge, 'Does Labour Time Decrease with Industrialisation'

This paper examines the direction of change in the composition of family labour time as a result of industrialisation. It contradicts

the assumption that work input by children in peasant agriculture is limited. In fact the progressive postponement of their role as workers inside or outside the home has been an important feature of modern, industrialised societies and has resulted in a reallocation of family labour time. Available studies suggest that there is actually an increase in the labour time required for the maintenance of the family and in view of the extended 'childhood' in post-industrial society, this increased work requirement has to be met by women. In contrast to a 2-7.4 hour work day in an agricultural society, in industrial societies women are found to work 5.8 - 9.5 hours each day.

36. Collecting Statistics on Agricultural Population and Employment
FAO, Rome, 1978.

This Guide is intended to help persons organising censuses and surveys to measure different aspects of agricultural population and employment. Different objectives for collection of relevant statistical data are discussed and four types of observational units proposed: individual persons, farms or holdings, households and localities, villages or small administrative sub-divisions. A detailed methodology for data collection is provided as well as a specimen programme for statistics collection which could be adopted even by developing countries. Areas needing further research are identified. Annexures contain specimen questionnaires and specimen summary reports from selected countries and a list of references pertinent to the subject matter of the Guide.

37. Bardhan, Pranab - "Some Employment and Unemployment Characteristics of Rural Women: An Analysis of NSS Data for West Bengal, 1972-73".

In rural employment planning, it is important to understand and quantify the specific employment and unemployment characteristics of rural women because the female labour market has some special features as a result of which the nature of employment programmes for which they may be available are often quite different from those for men. This paper provides some quantitative dimensions for some of these employment and unemployment characteristics of rural women. The analysis is based on some special tabulations carried out by the author on data for about 4900 sample households from more than 500 sample villages in West Bengal by the NSSO.

- 38 White, Benjamin - "The Economic Importance of Children in a Javanese Village in Population and Social Organisation (ed) Moni Nag. The Hague, Houston 1975.

The study questions the view that rural overpopulation emphasises that prospective Javanese parents have no economic justification for producing large families of potential labourers. Based on detailed time allocation data from 40 households the study reveals that (i) most children begin tasks between the ages of 7 and 9, (ii) productivity per hour of children's agricultural labour is not much lower than that of adults. This is true of non-agricultural wage labour as well,, (iii) many tasks performed by children while not productive are necessary, as they free household members for productive labour, and (iv) children from large families tend to be more productive than children from small families.

- 39 Cain Mead "The Economic Activities of Children in a Village in Bangladesh Population and Development Review, Vol.3 No.3, 1977. The population Council, 1 Dag Hammarskjold Plaza, N.Y.

The study analyses the work contribution of the child, the time spent and their age of entry into economic tasks in Char Gopalpur village in Bangladesh. It is based on time allocation data collected from 120 households divided into 3 groups based on landholding. It revealed that children are net producers as early as age 12, compensate for their cumulative consumption by age 15 and compensate for their own and sister's cumulative consumption by age 22. The cost of feeding children overshadows other child-rearing costs including clothing, education and marriage.

- 40 Khan, A.R., et al, Employment, Income and the Mobilisation of Local Resources: A Study of two Bangladesh Villages. (ARTEP, Bangkok, 1981)

The objective of this study is to estimate the potential employment and output in the Small Village Communities and to see how such potential could be realised. Characteristics of labour force participation, cropping pattern and income distribution in the two sample villages are taken up for detailed analysis. Possibilities of generating employment and income are then discussed, in the light of alternative policy packages.

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Appendix I

Methodology

METHODOLOGY

! Selection of State, District and Tehsil have already been described in Section-I. Selection of NSSO nucleus village used the following steps:

- (a) From the census of households conducted by the NSSO for their 27th round for each village, only those villages were considered which had a fair distribution of households across the three means of livelihood codes, namely:
 - 1) self-employed in agriculture
 - 2) rural labour; and
 - 3) others.
- (b) From the list of villages obtained in step (a), only those with a moderate number of households (150-200) were retained. This was necessary to avoid the risk of selecting a small village which might be a satellite of a larger village, or a large village which might have acquired the characteristics of a mofussil town:
- (c) The above list was examined for 'purity' of rural characteristics. The villages, that were on highways or near bus stops were rejected. A distance of 3-7 km from the nearest bus stop was a desired characteristic of the selected village.
- (d) The final selection of sampled villages was weighted in favour of those villages (in the list derived from (c) which were known to have a "normal" proportion in the labour force. This was done in order to avoid the risk of selecting those villages where women were not in the labour force for reasons of status or tradition.

2. The two nucleus villages selected were Mohtoli in Weir Tehsil, Bharatpur District and Kuita in P.S. Dubrajpur, Birbhum district.

Two villages were added to these nucleus villages both for providing minimum sample size for district level estimates, as well as a "cluster" of villages to capture sociological variations. Estimational value however, got cancelled as household selection was not random, but purposive.

The following is a detailed step by step enumeration of the sampling methodology:

Step-1

Census schedule O.1 was canvassed¹ in all households in all three villages in each district. The parameters on which information was obtained for the household and individual, respectively are:

1 Schedules attached

Houschold - operated land (standard unirrigated)
- family size, sex, age. By inference the labour force was also available.

Individuals - age, sex (demographic)
Occupational characteristics, viz. agriculture or non-agriculture or both, or non-worker (the reasons for non-participation were attending educational institutions, engaged in domestic work, age and physical disability).

Step-2

In each village, all households without females^{were} excluded. The rest were classified into three categories, viz.

- A - Exclusively agricultural
- B - Exclusively non-agricultural
- C - Agricultural-cum-non-agricultural

A household fell into categories 'A' or 'B' only if all the working members were engaged in exclusively agricultural or non-agricultural occupations, respectively.

A, B and C were considered separate sampling frames. The sample size from each was 15 percent of each frame (viz. 0.15A, 0.15B, and 0.15C).

Step-3

In the 'A' households, the average family labour input per unit of operated land was computed from the participation and land data of those households that neither hired in nor hired out labour. Since this average was observed to decline with increasing land holding, an average was computed for each of the following landholding sizes:

In Bighas

- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- 20 & more

On the basis of the deviation from their respective average, all the households in 'A' were classified as 'Net Hirers Out' or 'Net Hirers In' of labour. The difference of the ratio (of the household average to the land class average) from unity denoted the percentage of net hiring out or net hiring-in of the household.

The strata of sampling of 'A' households was therefore as follows:

<u>Net Hirers Out</u>		O	<u>Net Hirers In</u>	
P 100	50 P	100	O P 50	-50 P O -100 P -50 P -100

Step - 4

The female participation rate in each household was calculated as $\frac{WF}{F}$, where WF was the number of 'gainfully employed' females, and F was the total number of females in the age group 5+. The village average female participation was computed as the quotient of all the working females and females over the age of 5 years. The deviation of the female participation of the household from the corresponding rate for the village, expressed as a percentage, was calculated.

Step-5

In order to weight the sample in favour of the 'poor' rural households with predominantly net hirer out status and households in which female participation was below average or low, a weighted 2-strata sampling/design was employed in 'A' households. (In 'B' and 'C' only one strata sampling was employed, as explained below).

Sampling from 'A'

(a) In order to weight the sample towards 'poor' households, the lower bound of each class interval was increased by +101, so that the class interval of the households belonging to the 'Net Hirers Out' (NHO) category were assigned a higher 'P' value as compared to the negative 'Net Hirers In' (NHI) households. The weights were assigned by $\frac{np}{n}$, where n was the frequency in the class interval.

(b) Having calculated the sample size of each strata, the sample size from each sub-strata was calculated, again weighted in favour of households with low female participation, as detailed below in sampling from B.

Sampling from 'B'

The sample was drawn from one stratum, represented by the deviation of the household female participation rate from the corresponding rate for the village as a whole, ranging from 100 per cent below average to greater than 100 per cent above average. The class intervals of the stratum were 50 100, 25 50, 0 25, -50 0, -100 -50, -100.

In order to weight the sample in favour of households in which female participation was below average, the upper bound of each class interval was incremented by +101, thus assigning a higher 'K' value to households with low female participation and viceversa. The weights were denoted by $\frac{nk}{n_k}$, where n was

the frequency in the class interval. Thereafter the number of households to be sampled from each stratum indicated by this formula, were randomly selected.

Sampling from C

The procedure adopted for sampling from B was repeated for sampling from C.

Field Investigation

The investigators have recorded the time disposition of all members of selected households in the village in a day. The observation includes activities in the house and outside. The investigator spent two consecutive days on each selected household. While the activities of all members in the household age 5 and above were recorded, the focus was on the adult females and it was her activities that were observed. If there was more than one adult female, the investigators were asked to record as far as possible activities in the 'house' on the first day and activities 'outside' on the second.

Other rules devised on the ground were:

- (i) the members of a household who were in any form of 'regular' employment (usually males) their standard hours of work was recorded without observation. They were questioned about their activities which were recorded on a recall basis.
- (ii) those who were away for the day - marketing, visiting etc. were asked on return, or other members were asked and recorded. Whichever recording was on recall, the 'R' was marked against data. It was from this that we were able to device an estimate of 40-45% data as 'recalled'.

When observed members were concurrently engaged in more than one task then all the tasks were mentioned in Activity columns, at the recording stage.

Time of investigation

Our investigators visited the households usually between 7-11 in the morning and again 1 or 2 to 8 in evenings. They felt that the maximum activity both within and outside the household took place at these hours and in the day most persons have lunch and rest whether in the fields or in the homes.

It was intended to make 6 recordings (really 12 in the sense that the same household was visited twice), at regular intervals of approximately 2 months.

However, due to a number of reasons the rounds were not regular, particularly in Rajasthan. According to the sample size two investigators were needed in Rajasthan to complete the round in 2 months (sample size 52) and three were required in West Bengal (sample size 75).

However, when the field study was started only one investigator in Rajasthan and two in West Bengal were available, hence the first round took longer in both States. Secondly, in Rajasthan, during the 1977 March elections free liquor was being distributed and a rape case was reported. The NSSO officers advised us to suspend recording for a few weeks and asked the investigator to return to Delhi. Thirdly, the 1977 monsoons were particularly severe and the village was under floods so also the investigators room. Travel between the three villages became exceedingly difficult and again the investigator had to return to Delhi and suspend recording for a couple of weeks. These lapses were made up by three investigators recording, time budget data in the next rounds, as well as the addition of one month, January 1978 being added to the schedule.

Chart I describes the Rajasthan schedule. West Bengal was/ relatively regular.

Rajasthan

I	20th Dec. - 7th May	- 4½ months
II	21st May - 4th September	- 3½ months
III	5th September - 4th October	- 1 month
IV	5th October - 25th October	- 3 weeks
V	25th October - 25th November	- 1 month
VI	26th November - 26th December	- 1 month

The first five rounds in West Bengal and the first four in Rajasthan had schedules where time intervals were given in the schedule and activities had to be recorded (schedules attached). This was later changed when activities were listed and the time had to be recorded. While the second schedule proved easier to fill for the investigator, and perhaps recorded time more accurately, it became difficult during coding to record such detailed minutes.

Initially the time interval schedule was necessary in order to pick up all the activities. The second schedule was closer to the standard methodology and provided comparability for two regions. It seems necessary in the pre-test and micro studies to have free style recording of activities rather than time especially since activities vary in different agro-climatic regions.

In our study better data was obtained from the first schedule, but perhaps because the investigators were not used to filling time the second kind, as it was only introduced at the last phase.

In both Rajasthan and West Bengal the census of households was canvassed by the ISS research staff with the help of the NSSO investigators from Jaipur in the case of Bharatpur and Calcutta in the case of West Bengal.

West Bengal

Rekha Roy ISS
Seema Adhikari ISS
A.N. Jha NSSO

Rajasthan census

S. Almolu ISS
Malini Chand ISS
A. K. Chitra NSSO
S. L. Sharma NSSO

Time Disposition:

Rekha Roy	Dec. - Dec.	S. Almolu	Dec. - Dec.
Seema Adhikari	" "	Aditi Ghosh	Feb.
Hossanara Begum	Jan. - May	Vijayalakshmi	Aug. - Oct.
Aarti Das	June - Dec.	Sushcola	July - Dec.

The NSSO 32nd round schedules were canvassed on the sample households both in Rajasthan and West Bengal. They were canvassed by female investigators. There were 4 investigators in Rajasthan and 3 in West Bengal. Initially 2-3 schedules were canvassed per day, later 4 schedules. The exercise took approximately 5 days in Rajasthan 52 households and 8-9 days in West Bengal 75 households.

In Rajasthan the investigators were:

- Malini Chand
- Malini Sakharan
- S. Almolu
- Sushila

In West Bengal they were:

- Seema Adhikari
- Rekha Roy
- Aarti Das

Malini Chand had gone to West Bengal to explain the schedule and how it is to be canvassed but was unable to canvass it due to the language. She was assisted in the explanation by Uma Das Gupta.

The schedules were canvassed in November, 1977 in Rajasthan and in Dec. 1977 in West Bengal.

In Rajasthan both men and women were interviewed, usually individually and during the day. They were interviewed both in the houses or in the fields wherever available. As Almolu was familiar with the sample households she knew where they would be available. Interviews were conducted during the day from about 9 a.m. - 6 p.m. with a break for lunch for a couple of hours.

The general impression about respondents policy to answer questions in relation to block 5 is that they have a tendency to report the similar pattern of activity for all 7 days. Regarding block 8 investigators felt that the respondents were not aware of opportunities, alternatives, options in terms of employment. Not having the knowledge they usually did not seek work.

On block 9 our investigators have^a/positive impression. They feel that respondents could answer these questions with confidence and in detail; but this ability was related^{to} the fact:

- a) that they were extremely familiar with the investigators.
- b) the investigators already had a detailed profile of the women's work pattern. Therefore whether such a questionnaire can be answered in the absence of such familiarity is an open question.

Regarding the tendency for under reporting one of the perceptions of our investigators is that when they are first asked in block 4 or 5 they would like to report that they are non-workers because they presume that Government through these surveys will thereby provide them some employment. Therefore, if they say they need work and they are not working, they feel they will be counted as those to be supported.

This is one of the additional reasons that our investigators provided for not reporting.

Data Processing

Initially all the tabulations were done manually. Broadly the activities were divided into 3 categories

- 1) gainful
- 2) household chores
- 3) personal

Household Activities were further classified into

- 21 cooking
- 22 washing clothes and utensils
- 23 child care
- 24 fetching water
- 25 fetching fuel.

However, all children i.e. male and female (5-14) were grouped together for purposes of tabulation.

Tabulations were done to see variations in intensity of work according to seasons, landholding, religion and ethnicity; and by net hirer in/net hirer out households.

However, it was later felt that more detailed tabulations were required and that it would be useful to have the data coded and programmed.

The activities were coded - according to the same broad classification referred to above - but into 42 activities (see list of activities).

In Rajasthan with which we are more familiar, investigators had often recorded activities for a day expanding upto 17-18 hours. This wider coverage usually referred to personal activities, but occasionally it referred to gainful activities.

During computerisation it was decided to use a cut off period at both ends, going from 6 AM to 9 PM. In using this cut off point it is our estimate that we lost only 10% of observed recording by which most activities are likely to be "personal" (toilet, bathing, washing etc.).

Another aspect of recording was occasions when on day 1 one of the adult members of the household, normally is active in or around the household left the house for more than half a day and therefore was not available for observation recording. This led to a gap in the data on that person which as much as possible was overcome by the visit the next day.

However, since during coding for computer, only the first day's data was taken, it was important that wherever there was unusual phenomena the second day's recording was taken. Thus though the reference points were not 12 for computerisation, the second observation day was included whenever there was unusual aspect in the activity programme of an observed individual.

At the coding stage criterion were used as follows when activities were:

- i) gainful and "others", gainful was given priority;
- ii) household chores and personal, household chores given priority;
- iii) two of the same set on two consecutive half hour intervals than 1/2 values attached to each;
- iv) when two of same 'set' but not consecutive, first mentioned was taken.

Definitions

Census 1961

For the 1961 census the basis of work was satisfied if the person had some regular work of more than one hour a day throughout the quarter part of the working season - in the case of seasonal work like cultivation, livestock, dairying, household, industry etc.

In the case of regular employment in any trade, profession, service, business of commerce, a worker was regarded as one who was employed during any of the fifteen days preceding the day on which the household was visited.

An adult women engaged in household duties but doing no other productive work to augment the family's resources was considered a non-worker. If, however, she engaged in work such as rice pounding for sale or wages or in domestic services for wages for others or minding cattle or selling firewood or making and selling cowdung cakes or grass, etc., she was to be treated as worker.

Census 1971

Unlike the 1961 Census-1971 Census regarded worker as a person whose main activity is participation in any economically productive work by his physical or mental activity worker was regarded as one who not only ^{does} actual work but also supervision and direction of work.

In seasonal work such as cultivation, livestock, keeping plantation work, etc., the person's main activity was ascertained with reference to such work in the last one year even if he was not economically active in the work prior to enumeration. For example if person's main activity was agricultural labourer but in the work prior to enumeration he engaged himself as a sugarcane factory labourer, he was categorised as an agricultural labourer while the other work was treated as his subsidiary work.

A man or a women who engaged primarily in household duties such as cooking for own household or performing 'own' household duties or a boy or girl who was primarily a student attending educational institutions, was not regarded as a full time worker even if he or she helped in the family's economic activity. On the other hand if a person was primarily engaged in some economic activity but at the same time also attended household chores or night school he or she was treated as a worker.

NSS 27th Round (1971-73)

For the NSS 27th Round a person was treated as currently working (during the reference period of one week) or usually working (over a long period) if he or she pursued some gainful activity during the period of reference. The labour time utilised for pursuing the activity may have been even one hour per day on an average. During a short period, the person attached to some gainful work who have not been attending to that work for a few days or even for the better period of reference due to sickness or for other reasons, such as, enjoyment of holiday, leave, etc. but nonetheless

he or she was considered as working. The current activity category codes 41-53 were assigned for all currently working persons (i.e. considered working during the reference period of one week). The usual activity category codes 11-17 were assigned for all usually working persons (i.e. considered working usually over a long period).

A person found to be engaged in his own farm/enterprise/profession, etc. or was in employment in others farm/enterprise/profession, etc. or was in casual employment in agricultural/non-agricultural activities or was working as a helper in household farm/non-farm enterprise during the reference week was termed Currently-working (or currently in gainful employment). Included in the above category were those persons who temporarily abstained from work on any day of the reference week or during the whole period of the week due to sickness or other reasons without having been disengaged or left from the work or employment.

Casually Working: A person found to be usually (i.e. over a long period) engaged in his own farm/enterprises/profession, etc. or was usually on casual employment in agricultural/non-agricultural activities or had been working in household farm/non-farm enterprise as helper was termed casually working (or casually in gainful employment).

NSS 32nd Round (1977-78)

For the NSS 32nd Round, a person considered to be working if he or she had while pursuing any gainful occupation worked for at least one hour on at least one day during the week preceeding the date of survey. A person was considered to be seeking and/or available for work if during the reference week no gainful work was done by the person but he or she had during the week made efforts to get work and/or was available for work during the reference week though not actively seeking work. Workers were further classified into 11 status categories.

For the second NSS 32nd Round participation rate in addition to these workers who fell in the 11 status categories (i.e. codes 0.1-71) all those who engaged in code 93 i.e. free collection of goods were also included as workers.

The activities 01 to 71 are considered 'gainful' and a person engaged in any of them is considered 'working' or 'employed', the activities 81-82 connote 'Unemployment'. The employed and the unemployed together constitute what is called the labour force and persons placed in these categories are said to be in OR to be participating is the labour force. The remaining activities, namely 91-99, are considered 'not gainful' and persons engaged in any of them are considered to be 'out of the labour force'.

NSS 32nd Round -- Some key results on Employment and Unemployment --
V.M. Dandekar.

Comparative tabulation of information collected in Census
0.0 and Census 0.1.

	<u>Census 0.0</u>	<u>Census 0.1</u>
1. <u>Demographic</u>	1) Name of the head of household	1) Name, age, sex of all household members (5 years old and above)
	2) Family size:	
	a) females, males	
	b) adults, children (13 years and below)	
	3) Caste	2) Caste
2. <u>Occupation</u>	1) Number of adult working, males, females.	1) Occupation of each member (+5). Whether agriculture (A) non-agriculture (B) or non-worker (N)
	2) Means of livelihood, whether	
	- agricultural labour	Agriculture:
	- other labour	- poor peasant, hiring himself
	- self employed in agriculture	out: casual
	- owner cultivator	- attached bonded
	- tenant cultivator	- poor middle peasant, neither hiring in or hiring out labour
	- self employed in non-agriculture	- Middle & big peasant, not hiring in labour
	- others	- cultivator, only supervises work on farm.

Census 0.0

Census 0.1

- Landlord, only leases out land
- Non-agriculture
- Labour: casual, attached, bonded
- Self employed in household industry (pattern smithy, carpenter etc. 10 individual codes.)
- Self-employed in services (barber, washerman, religious services etc. 12 codes).

-N. Non-worker:

a) -casual

Attending educational institution

Domestic work

Physically disabled

non-availability of work

b) Willingness to work

not willing to work

Willing to work half/day

full day

Extent of irrigation of cultivated land

Land holding 1) owned land

2) Homestead land Not irrigated

3) Cultivated land 25% irrigated

50% irrigated

Fully irrigated

Consumption expenditure

1) Average monthly Not canvassed

Consumption expenditure

INSTITUTE OF SOCIAL STUDIES

Schedule O : List of households and sample selection

Period of Survey:

Signature of Investigator

Name of Investigator

State
District

Tehsil:
Village:

House Number	House hold sr.No	Name of head of house hold	Household size				Average Total monthly consumer expenditure (Rs.)	Per Capita monthly consumer expenditure (Rs.)	House hold m.l.a (code)	Total	Land		No. of adult wor- kers	If self employed in non- agricul- ture	No. of persons engaged			
			M	F	M	F					Home- stead	Culti- vated			M	F		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

a) household means of livelihood codes: Rural labour (i) Agricultural Labour -1
Other labour -2
(ii) Self employed in Agriculture -Owner cultivator -3;
Tenant cultivator -4
(iii) Self employed in non-agriculture - 5;
(iv) Others - 6.

Note: Persons 14 years and above will be treated as adult.

Schedule O was used for collecting data for the households of three villages, Mehtoli, Etrampura and Chentoli in Weir Tehsil, Bharatpur District, Rajasthan in October 1976.

The Schedule was derived from the National Sample Survey Questionnaire of the 27th Round after discussions with experts of the NSSO.

INSTITUTE OF SOCIAL STUDIES
Study of Rural Households
Schedule O.1 : Census of households

Name of Investigator _____
Signature _____
Date: _____
District: _____

Tehsil: _____ Household sl.No.: _____
Village: _____ House no. _____
Caste: _____

Land with household

i) Owned
Total: _____
Homestead: _____

ii) Cultivated: _____

iii) Irrigation of cultivated land: _____

Name of all members of household + 5

Relationship to head of household

(Male:1
Female:2
Sex

(Last birthday)
Age

Occupational characteristics

Agri-culture Non-agri culture Non-worker

Willingness to work (to be asked only if respondent is non-worker)

_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

Schedule O.1 was canvassed on all households in the sample villages of Bharatpur and Birbhum districts. The Census of households was carried out in October 1976 in Bharatpur and December 1976 in District Birbhum. The objective of this Schedule was to identify households on the basis of their net hirer in, net hirer out status and secondly to study the differences in the two approaches (Schedule O and Schedule O.1 to observe differences and ascertain the preferred classification system.

INSTITUTE OF SOCIAL STUDIES

List of Codes for field investigators for Schedule O.1

Occupational Characteristics Code

Agriculture

i) Poor peasant, only hiring himself out	:01-07
-Casual	:01
-Attached	:02
-Bonded	:03
ii) Poor middle peasant, does not hire in or hire out labour	:04
iii) Big and middle peasant, works on own farm, does not hire out his labour but hires in labour	:05
iv) Cultivator, only supervises work in farm	:06
v) Landlord, collects rent only	:07

Non-agriculture

i) Non-agricultural labour (wage paid)	:20-26
-Casual	:20
Permanent - Attached	:21
- Bonded	:22
ii) Household Industry (self employed)	:23
iii) Trade (self-employed)	:24
iv) Services	:25
v) Salaries (non-manual labour)	:25

Non-workers

i) Attending educational institutions	:40-47
-half day	:40
-full day	:41
ii) Domestic Work	
-half day	:42
-full day	:43
iii) Physically disabled	
-old	:44
- Not old	:45
iv) Non-availability of work	
- Usually engaged in	: 46
v) Other reasons	:47

<u>Willingness to work in gainful employment</u> (To be asked if respondent is a non-worker)	:50-52
Not willing to work	:50
Willing to work half day	:51
Willing to work full day	:52
<hr/>	
Quality of operated land	:60-63
Not irrigated	:60
25% irrigated	:61
50% irrigated	:62
Fully irrigated	:63

Rural Household Study

Schedule I

Record of Time Disposition of Household Members

Sl. No. of Hh. member	Name	Age (Complete years)	Sex (M-1) (F-2)	Marital Status	Educa- tion	Skill	Occu- pation	Dates of observa- tion
1	2	3	4	5	6	7	8	9

<u>Time Disposition</u>	<u>Activity</u>	<u>Tools Used</u>	<u>Activity</u>	<u>Tools Used</u>
-------------------------	-----------------	-------------------	-----------------	-------------------

a. m.

6.00 - 6.30				
6.30 - 7.00				
7.00 - 7.30				
7.30 - 8.00				
8.00 - 8.30				
8.30 - 9.00				
9.00 - 9.30				
9.30 - 10.00				
10.00 - 10.30				
10.30 - 11.00				
11.00 - 11.30				
11.30 - 12.00				Y

p. m.

12.00 - 12.30				
12.30 - 1.00				
1.00 - 1.30				
1.30 - 2.00				
2.00 - 2.30				
2.30 - 3.00				
3.00 - 3.30				
3.30 - 4.00				
4.00 - 4.30				
4.30 - 5.00				
5.00 - 5.30				
5.30 - 6.00				
6.00 - 6.30				
6.30 - 7.00				
7.00 - 7.30				
7.30 - 8.00				
8.00 - 8.30				
8.30 - 9.00				

Institute of Social Studies
Rural Household Study

Schedule II

Record of Time Disposition of Household Members

Sl.No. of HH member	Name	Sex (M-1) (F-2)	Age	Material Status	Education	Skill	Occupation	Date of Observation
Activities	Code No.	Time Begun (hrs.min.) Time ended (hrs.min)	Time begun (hrs.min) Time ended (hrs.min)	Time Begun (hrs.min) Time ended (hrs.min)	Time Begun (hrs.min) Time ended (hrs.min)	Time Begun (hrs.min) Time ended (hrs.min)	Time Begun (hrs.min) Time ended (hrs.min)	Total
1	2	3	4	5	6	7	8	9
Travelling and work	101							
Plucking Veggies.	111							
Cutting grass/ straw	112							
Weeding	113							
Sowing Crop	114							
Harvesting crop	115							
Ploughing the field	116							
Irrigating the field	117							
Collecting groundnuts	118							
Dairying (feed- ing, milking, grazing cattle	121							
Tailoring	131							
Making shoes	141							
Carpentry	151							

1	2	3	4	5	6	7
Pottery	161	_____	_____	_____	_____	_____
Working as casual labourer in public works	171	_____	_____	_____	_____	_____
Working as salaried employee	181	_____	_____	_____	_____	_____
Wholesale/Retail trade	191	_____	_____	_____	_____	_____
Cooking	201	_____	_____	_____	_____	_____
Cutting vegetables	202	_____	_____	_____	_____	_____
Grinding	203	_____	_____	_____	_____	_____
Firing the oven	204	_____	_____	_____	_____	_____
Serving	205	_____	_____	_____	_____	_____
Washing Utensils	211	_____	_____	_____	_____	_____
Washing clothes	212	_____	_____	_____	_____	_____
Child Care	221	_____	_____	_____	_____	_____
Fetching water	231	_____	_____	_____	_____	_____
Fetching fuel	232	_____	_____	_____	_____	_____
Bring. vegg. for household consumption	232	_____	_____	_____	_____	_____
Shopping	234	_____	_____	_____	_____	_____
Serving	241	_____	_____	_____	_____	_____
Toilet	301	_____	_____	_____	_____	_____
Other personal activities	311	_____	_____	_____	_____	_____

Put 'W' if person gets wage for activity e.g. harvesting crop
9.30 - 11.30 (W)

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Rural Household Study

May 1979

Card Design 2

Individual Slip

	<u>Columns Allotted</u>	<u>Card Column</u>	<u>Decimal Places</u>
1 Card Design	1	1	
2 State Code	1	2	
3 Household No.	2	3-4	
4 Sr.No. of Member	2	5-6	
5 Age	2	7-8	
6 Sex (1 for Male 2 for Female)	1	9	
7 Sr.No. of Observation	1	10	

I Agricultural Activities

8 Travelling to Work	2	11-12	
9 Ploughing, Digging	2	13-14	
10 Sowing	2	15-16	
11 Transplanting (W.B.) Service(R)	2	17-18	
12 Irrigating Field	2	19-20	
13 Manuring Field/Bringing Fertilizer	2	21-22	
14 Guarding Field	2	23-24	
15 Harvesting	2	25-26	
16 Supervising Field	2	27-28	
17 Groundnut Picking (Raj) Service (WB)	2	29-30	
18 Vegetable Plucking/Pot Herbs	2	31-32	
19 Cutting grass from fields	2	33-34	
20 Weeding fields	2	35-36	

	<u>Columns Allotted</u>	<u>Card Column</u>	<u>Decimal Places</u>
21 Husking Winnowing Boiling Grain Threshing	2	37-38	
22 Fodder Chopping	2	39-40	
23 Cattle/Goat grazing	2	41-42	
24 Cattle milking/Feeding	2	43-44	
25 Making butter	2	45-46	
26 Maintenance (Cowdung on homes, cattle pit construction, thatching etc.)	2	47-48	
27 Making Cowdung cakes	2	49-50	

II Non-Agriculture

Goods

28 Production of	2	51-52
(i) Strawmats		
(ii) Patchwork Quilt		
(iii) Cords		
(iv) Leaf Plates (Collection of of leaves)		
(v) Bidies		
(vi) Baskets		

Services

29 Village Artisan Services	2	53-54
(i) Tailor		
(ii) Potter		
(iii) Carpenter		
(iv) Barber		
(v) Implement repair		
30 Work as domestic servant	2	55-56

Trade

31 Selling Goods		
(i) Stationery	2	57-58
(ii) Grain		
(iii) Fish etc.		
(iv) Vegetables		
(v) Wood		
(vi) Grass		

	<u>Columns Allotted</u>	<u>Card Column</u>	<u>Decimal Plates</u>
32 Manual Labour	2	59-60	
33 Begging	2	61-62	

IV Household Chores

34 Cooking (Grinding, Cutting Chopping Serving)	2	63-64	
35 Sweeping, Washing Clothes & Utensils	2	65-66	
36 Fetching water	2	67-68	
37 Fetching Fuel	2	69-70	

V Child Activities

38 Schooling	2	71-72	
39 Playing Time by Children	2	73-74	
40 Time spent in child care	2	75-76	
41 Taking food to field	2	77-78	

VI Personal

42 Others	2	79-80	
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Worship
Chatting
Toilet
Sleeping
Recreation
Idleness
Eating
Resting

APPENDIX II

Background Information

Background InformationThe DistrictsDistrict BirbhumGeography

The district of Birbhum is the Northern most District of Burdwan Division and is situated at the Western boundary of the State of West Bengal.

Sex Ratio

In the Indian sub-continent males outnumber females. This is true for the West Bengal also, since 1901, when the ratio was 945. In 1971 there were 892 females for every 1000 males.

However, in the district of Birbhum females have always outnumbered males upto 1931. In 1951 the numbers were in equal proportion. But in the 71 Census more males have been enumerated than females, the ratio being 971 females per 1000 males.

Two major religions viz Hinduism and Islam are noticed. Hindus 72.17% and Islam 27.63%.

Work Participation Rates

Birbhum's overall participation rates are slightly less than the State figures. Birbhum has a work participation rate of 48.5 for males and 4.52% for females while West Bengal's work participation rates are 48.89 and 5.36.

In the rural sector labour participation by females has been lower in Birbhum than in the State, while 5.54% of the female population are workers in West Bengal, in the District of Birbhum only 4.52% females have been classified as workers. In the case of males the figures for West Bengal are 48.54% while that for Birbhum is 48.84% (1971 Census).

Most of the workers of this district are engaged in agricultural pursuits. Every 3 out of any group of 4 workers seem to be in the agricultural sector, either as a cultivator or as an agricultural labourer. In the State of West Bengal as a whole only 54% of the total working population are engaged in agriculture as against 78.8% in the district of Birbhum.

The proportion of cultivators both male and female is less in the district than the State. Male cultivators constitute 45.47% and female cultivators 15.85% of workers in West Bengal as against 41.57% and 12.35% in Birbhum.

The percentage of agricultural labour on the other hand is higher than the State average. Amongst the female workers of Birbhum, it is seen that their participation as agricultural labourer has been quite marked. 64% of the total working women of Birbhum are engaged as agricultural labourers against the State percentage of 37. Agricultural labourers comprise 41.82% of workers as against 22% for West Bengal.

Agriculture

As can be seen by the high percentage of agricultural workers in the district, agriculture forms the principal industry of the district.

Among 80% of the cropped area of the district covers rice. Birbhum is mainly aman rice producing area and three varieties of rice are grown - Aman, Ans and Boro with Aman occupying the maximum area.

Other crops include wheat, barley, jowar, bajra, maize, gram, sugarcane, mustard, condiment, jute and fruits.

District Bharatpur

The territory now known as District Bharatpur is composed of the former States of Bharatpur and Bolpur. District Bharatpur lies in Eastern portion of Rajasthan. It is bounded on the North and North West by Gurgaon District of Punjab. On the East by Mathura and Agra Districts of U.P. On the South by Morena District of Madhya Pradesh and on the West by Sawai Madhopur and Alwar Districts of Rajasthan.

It is an alluvial plain, with detached bare hills in the north and fairly well wooded hills in the south. The highest point of the district is 1,330 ft. above the sea level in Tehsil Weir.

Chambal is the only perennial river flowing in the district. Other non-perennial rivers are the Banganga, Ghambir and Kakan.

Work Participation

Bharatpur's overall participation rates are less than the State figures. Bharatpur has a work participation rate of 51.25% for males and 4.0% for females while the work participation rate of Rajasthan are 52.13% and 10.42%. This

is also true for the rural areas. While in Rajasthan the rural percentage of workers is higher than the overall percentage of workers, in Bharatpur it is lower. Female workers in Bharatpur are less than half the percentage of female workers in Rajasthan being 4.05% in Bharatpur and 11.47% in Rajasthan.

While the proportion of rural male cultivators in Bharatpur is higher (80.1%) compared to the local workers of the State average (74.90), the proportion of female cultivators is lower (58.53) in Rajasthan, 32.4% in Bharatpur). Correspondingly the percentage of male agricultural labourers is lower in Bharatpur 6.6 than in Rajasthan (8.33%) but the percentage of female agricultural workers is higher - 22.7% in Bharatpur as against 18.72% in Rajasthan.

As in Birbhum most of the workers are engaged in agricultural pursuits, either as cultivators or as agricultural labourers. In Rajasthan as a whole 82.2% of the working population are engaged in agriculture as against 78.8% in District Bharatpur. Climatically the district is damp and moist. The minimum temperature ranging from 12°C to 15°C and maximum temperature varying between 30°C to 32°C. The rainfall is 66.98 cms. The rainy season lasting from July to September.

The Tehsils

Weir Tehsil

Weir's population constitutes 7.86 of Bharatpur's population. The overall literacy rates are lower than the district and state average, but are slightly higher in the case of males.

P.S. Dubrajpur

Dubrajpur covers 7.96 of the area of Birbhum

The Selected Villages

While there are many similarities between the three villages in Rajasthan and the three in West Bengal each village has a pattern and mode of life which is to some extent unique. The villages covered are inhabited by Hindus or tribal folk exclusively as well as mixed villages where Hindus and tribal folk live together. The West Bengal villages include members of more than one religion that is Hindus and Muslims.

The range of castes covered is wide. Each caste has a culture of its own which is to some extent different from the culture of the others.

There are differences in size between the villages chosen, the smallest being Etrampura in Rajasthan with a population of 266 with 48 households, the largest was Kuita with 202 households and a population of 979. (1971 Census).

Crops

In both areas the villagers are engaged in the cultivation of land. But while in West Bengal, rice is the basic crop, grown and used entirely for local consumption, the majority of the people have to buy rice from outside source in addition to what they grow. Potato and jute are grown in large quantities as cash crops. They are grown alternatively on the same fields, which are at higher level while Aman paddy is grown on the low lying land. Lentils are grown for the villagers own consumption. Vegetables are also grown.

In the villages of Rajasthan the main crops are jawar and bajra, which are generally adequate for household consumption. The chief cash crops of the region are groundnuts, maize and chillies. A few vegetables such as tomatoes and cauliflower are also grown.

Birbhum District, West Bengal

Thabgaon is the largest of the surveyed villages in Birbhum in terms of area (514 acres) and the smallest in terms of households and population.

Of the 514 acres, 100 acres i.e. about 1/5th of the area is irrigated by tanks. 313 acres is unirrigated and 75 acres is area that is not available for cultivation. Tubewells and wells provide drinking water for the villagers. The nearest town is Dubrajpur, 22 kms away.

Unlike the other two villages Thabgaon has its own primary school although older children have to go to the neighbouring villages of Chandidaspur to attend secondary school.

69.3% of households engage in agricultural occupations while 13.8% engage exclusively in non-agricultural occupations, chief of these being salaried occupation, manual or non-manual labour, 16% of the households engage in agricultural-cum-non-agricultural occupations.

While 51% of the population has less than 3.5 acres of land, it is in 35% of the households where the working members solely hire themselves out as agricultural labourers. There are only 7 landless households. There are some households where some of the members hire themselves out occasionally.

Approximately an equal number of households fall into the category of poor middle peasants who do not hire in or hire out labour. About 20% of the households own large tracts of land, most of them working themselves and also hire in labour.

The female participation rate in the village is very low. Only 2 females reported that they are working in the 1971 Census.

Selarapur is a large village. It is the only village in the surveyed villages of Birbhum having not only a Scheduled Caste population but a Scheduled Tribe population as well. Tribal women work in the fields along with men and in times of heavy work an entire household may be engaged in the field. The tribal element in the population may be the cause of the slightly larger number of women who are classified as workers in the 1971 Census.

As in Thabgaon the Muslims account for one third of the village population.

The total acreage of the village is 402, of which 76 acres are irrigated through tanks, 226 is unirrigated, and 50 acres is area not available for cultivation.

Rice and wheat constitute the staple food for all three villages although rice is the crop that is cultivated in the area.

The village has no medical and educational facilities. The children therefore go to the primary school in Thabgaon or to the Middle School in Chandidaspur.

As in Thabgaon agriculture forms the chief occupation for 62% of the households. 18% of the households engage in non-agricultural occupations exclusively while 20% engage

in agriculture-cum-non-agriculture. 41% of the households engage exclusively in hiring themselves out as agricultural labourers. This figure is a little higher than that found in Thabgaon. 40% of the households neither hire in nor hire out labour.

Kuita Kuita is a large village with a population of 979 (474 males and 505 females) and has 202 households (231 in ISS Census 1976).

Like Salarpur and Thabgaon, Kuita has both Muslims and Hindus but it has fewer scheduled caste residents and no tribal folk.

In area Kuita is smaller than the other villages (382 acres) being only slightly larger than Ethrampura in Rajasthan (324 acres) and having 4 times the number of households. Only 75 acres of the village land is irrigated by tanks and 207 is unirrigated. 40 acres is area that is not available for cultivation.

In contrast to Thabgaon and Salarpur, fewer households (52%) engage exclusively in agriculture. The percentage of households engaged in non-agricultural occupations is higher than the other villages accounting for over 30% of the total households.

The proportion of households (50%) who hire themselves out exclusively as agricultural labourers is higher than that for Thabgaon and Kuita. A majority of the labourers report that although a few households reported that they were "attached" or "bounded", 25% of the households neither hired in nor hired out labour, whereas 20% of the households owned larger tracts of land and often hired in labour.

About 9% of the households were landless while another 20% owned only homestead land.

The female participation rate was very low as in the other villages. Only 21 females of the 532 reported as working (3.6%).

Bharatpur District, RajasthanEtrampura

Etrampura is the smallest of the three villages selected for the survey both in terms of population and the area covered. It is also the most homogenous in terms of caste and occupational categories.

The population of the village has risen from 252 (males 115, females 137) in 1961 to 266 (males 146, females 120) in 1971 and to 310 (Census conducted in 1976 by ISS). The households have risen from 44 (61) to 48 (71) to 577 (ISS 76). The village is almost entirely inhabited by Minas, a tribe with the exception of 2 Brahmin households, the village is entirely inhabited by Minas, originally known to be criminals. The area of the village is 324 acres of which 112 acres is irrigated by wells. Only 12 acres of the village is not available for cultivation. The chief crop is Bajra.

Since there are no artisan households in Etrampura, it gets these services from the neighbouring villages. Etrampura does not have its own school. The children therefore go to primary schools in Mehtoli or Chentoli or to the middle school in Bhusawar town. Although about 40.9% of the household population has less than 10 bighas of land, there are very few households whose working members are solely agricultural labourers. This is due to the fact that only 4.5% of the households have land less than 5 bighas, and there is only one landless household. However, there are households where some members of the household hire themselves out occasionally. The majority of households, 58.2% fall under the category of poor middle peasants who do not hire in or hire out labour. There are a few households which practise exchange labour, while there are some big peasants who work on their own farm and also hire in labour. Unlike the 71 Census where female participation rate recorded was 0, the ISS Census revealed that the FPR (53%) was higher than the GPR (50%). Most households own livestock, generally cattle and goats. Milk, however, is consumed in the households, it is rarely sold.

Mehtoli

The nucleus village of the study is a large village, having 133 households with a population of 827 (ISS Census 1976). It is a multi-caste village with each caste more or less occupying a separate ward. There is a primary school in

Mehtoli. Although agriculture is the main occupation of the people of Mehtoli, artisan households also are found. In Mehtoli 73% of the households have land holdings greater than 10 bighas, and about 18% have less than 2 bighas, whereas 6.8% are landless. The female participation rate measured as the participation of the working force female population (all members of the age of 5 years and more) in gainful employment is 49%, which is lower than the corresponding rate for Chentoli, 70%. The general participation rate in Mehtoli is 54%.

Both Etrampura and Mehtoli are inhabited entirely by Hindus, unlike Chentoli which also has a couple of Muslim households, one of them being a blacksmith.

Chentoli

This village is the largest of the 3 villages in terms of number of households 155 (ISS Census 1976) and is the most diversified in terms of occupations and caste composition. Chentoli village is nearest to the main road connecting Bhusawar and Bharatpur. A large number of the people of Chentoli are manual labourers in the Rajasthan State Electricity Board in Bhusawar. Land holding in Chentoli presents a contrast to Mehtoli, in that 64% of the households have small land holdings of less than 10 bighas. Chentoli has the largest number of artisan households and among these are potters, ironsmiths, blacksmiths etc. Most artisans are either landless or do have little land. The females generally work as agricultural labourers. There are no shops in any of the villages although once a week a man comes by a cycle selling items like ghee and occasionally a man comes to sell gur, and other sweet meats. For all three villages the main crops are bajra and groundnut. A few vegetables are grown, chillies are grown as a commercial crop. Much of the land is unirrigated although recently several tubewells have been installed. Bullocks are used for ploughing.

PROFILE OF VILLAGES ALL HOUSEHOLDS

Table A-1

A profile of the Selected villages
ISS Census '76

<u>State</u>	<u>Population</u>		(A)	(B)	(C)	<u>Sample Size</u>		
	<u>Male</u>	<u>Female</u>	<u>Agricultural Households</u>	<u>Non-agri-cultural Households</u>	<u>Agricultural-cum-Non-Agricultural Households</u>	<u>A</u>	<u>B</u>	<u>C</u>
<u>Rajasthan</u>								
Etampura	174	149	35	2	-	8 (14.5)	1 (5.0)	-
Mehtoli	464	372	116	10	7	17 (14.7)	2 (20.0)	1 (14.3)
Chentoli	501	385	115	12	25	16 (13.9)	2 (16.7)	5 (17.9)
<u>West Bengal</u>								
Tanbgaon	291	281	74	13	17	11 (14.9)	2 (15.4)	3 (17.6)
Kuits	478	502	120	71	34	17 (14.2)	11 (15.5)	5 (14.8)
Selarpur	455	492	108	31	33	16 (14.8)	5 (16.1)	5 (15.2)

The Data in the above table is obtained from the ISS survey conducted in 1976.

Table A-2 Distribution of households across asset
holding -sample households/village

Rajasthan

Land (in bighas)	<u>The villages</u>	<u>The sample households</u>
Landless Homestead	39 (11.3)	16 (30.7)
0.5 - < 2.5	23 (6.7)	3 (5.8)
2.5 - < 5	40 (11.6)	5 (9.6)
5 - < 10	70 (20.3)	13 (25.0)
10 - < 20	110 (31.8)	8 (15.4)
> - 20	63 (18.3)	7 (13.5)
	<hr/> 345 <hr/>	<hr/> 52 <hr/>

Table A-3

Distribution of households across asset holding-sample households/village

West Bengal		
Land (in acres)	<u>The Villages</u>	<u>Sample households</u>
Landless	64 (12.2)	12 (16.0)
Homestead Only	141 (26.9)	24 (32.0)
0.5 - <2.5	196 (37.4)	30 (40.0)
2.5 - <5	65 (12.4)	4 (5.9)
5 - <10	43 (8.2)	3 (4.0)
10 - <20	14 (2.7)	2 (2.7)
> - 20	1 (0.2)	
	<hr/> 524 <hr/>	<hr/> 75 <hr/>

Table A-4

The number of households in
each village

Rajasthan

West Bengal

<u>Name of Village</u>	<u>No. of house-</u> <u>holds</u>	<u>Name of Village</u>	<u>No. of house-</u> <u>holds</u>
Etrampura	57	Thabgaon	110
Mehtoli	133	Selarpur	183
Chentoli	155	Kuita	231
	<u>345</u>		<u>524</u>

Table A-5 A Demographic Profile of residents of the selected villages(Rajasthan)

<u>Age</u>	<u>Etrampura</u>		<u>Mehtoli</u>		<u>Chentoli</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F
0 - 4	20 (12.0)	16 (11.9)	40 (9.6)	32 (11.2)	48 (10.8)	37 (10.9)	108 (10.5)	85 (11.2)
5- 9	23 (13.8)	18 (13.4)	49 (11.8)	29 (10.8)	53 (11.9)	33 (9.7)	125 (12.2)	80 (10.5)
10 - 14	22 (13.2)	14 (10.5)	59 (14.2)	37 (12.9)	65 (14.6)	43 (12.7)	146 (14.2)	94 (12.3)
15 - 19	15 (9.1)	16 (11.9)	40 (9.6)	20 (7.0)	33 (7.4)	31 (9.2)	88 (8.6)	67 (8.5)
20 - 29	21 (12.7)	17 (12.7)	69 (16.6)	71 (24.8)	68 (15.3)	70 (20.6)	158 (15.4)	158 (20.7)
30 - 39	17 (10.2)	17 (12.7)	58 (14.0)	26 (9.1)	63 (14.2)	43 (12.6)	138 (13.4)	86 (11.3)
40 - 49	18 (10.9)	15 (11.2)	32 (7.7)	28 (9.8)	50 (11.2)	36 (10.6)	100 (9.7)	79 (10.4)
50 - 59	16 (9.7)	15 (11.2)	36 (8.7)	30 (10.5)	25 (5.6)	17 (5.0)	77 (7.5)	62 (8.1)
60 - 69	11 (6.7)	7 (5.3)	22 (5.3)	11 (3.9)	27 (6.0)	26 (7.7)	60 (5.8)	44 (5.8)
70+	3 (1.8)	-	11 (2.7)	3 (1.0)	14 (3.2)	4 (1.2)	28 (2.7)	7 (0.9)
<hr/>								
	166 (100.0)	135 (100.0)	416 (100.0)	287 (100.0)	446 (100.0)	340 (100.0)	1028 (100.0)	762 (100.0)
<hr/>								

(Figures in brackets indicate percentages of population in each/age group to total population).

Table A-6 A Demographic Profile of residents of the
selected villages (W. Bengal)

<u>Age</u>	<u>Thabgaon</u>		<u>Selarpur</u>		<u>Kuita</u>		<u>Total</u>	
	M	F	M	F	M	F	M	F
0 - 4	36 (11.8)	32 (10.9)	48 (11.0)	42 (9.4)	65 (13.1)	56 (10.5)	149 (12.0)	130 (10.2)
5 - 9	41 (13.5)	53 (18.0)	62 (14.2)	64 (14.3)	59 (13.9)	89 (16.7)	172 (13.9)	206 (16.2)
10 - 14	48 (15.8)	54 (18.4)	58 (13.3)	67 (15.0)	62 (12.5)	78 (14.6)	168 (13.6)	199 (15.6)
15 - 19	34 (11.2)	40 (13.6)	49 (11.2)	53 (11.9)	52 (10.5)	70 (13.1)	135 (10.9)	163 (12.8)
20 - 29	51 (16.8)	40 (13.6)	67 (15.3)	81 (18.1)	87 (17.5)	90 (16.9)	205 (16.6)	211 (16.6)
30 - 39	34 (11.2)	33 (11.2)	65 (14.9)	58 (13.0)	67 (13.5)	51 (9.6)	166 (13.4)	142 (11.1)
40 - 49	25 (8.2)	21 (7.1)	38 (8.7)	33 (8.4)	42 (8.5)	45 (8.4)	105 (8.5)	99 (7.8)
50 - 59	19 (6.3)	10 (3.4)	29 (6.6)	24 (5.4)	29 (5.4)	30 (5.6)	77 (6.2)	64 (5.0)
60 - 69	10 (3.3)	10 (3.4)	15 (3.4)	16 (3.6)	15 (3.0)	23 (4.3)	40 (3.2)	49 (3.8)
70+	6 (2.0)	1 (0.3)	6 (1.4)	9 (2.0)	8 (1.6)	1 (0.1)	20 (1.6)	11 (0.9)
	304 (100.0)	294 (100.0)	437 (100.0)	447 (100.0)	496 (100.0)	533 (100.0)	1237 (100.0)	1274 (100.0)

(Figures in brackets indicate percentage of population in each age group to total population).

Table A-7 Sex Ratio in Selected States, District, Tehsil
Census 1971

<u>Rajasthan</u>		<u>West Bengal</u>	
	<u>Females per 1000 males</u>		<u>Females per 1000 males</u>
Rajasthan	922	West Bengal	941
Bharatpur District	840	Birbhum District	977
Weir Tehsil	865	Dubrajpur Tehsil	984

Table A-8

Sex Ratio in Selected Villages

Rajasthan

	<u>1971 Census</u>				<u>CHH, ISS 1976</u>			
	<u>Population</u>	<u>Male</u>	<u>Female</u>	<u>Female per 1000 Males</u>	<u>Population</u>	<u>Male</u>	<u>Female</u>	<u>Female per 1000 males</u>
Etrampura	266	146	130	822	301	166	135	813
Mehtoli	714	401	313	781	703	416	287	689
Chentoli	815	454	361	795	786	446	340	762
Total	1795	1001	794	794	1790	1028	762	791

West Bengal

	<u>1971 Census</u>				<u>CHH, ISS 1976</u>			
	<u>Population</u>	<u>Male</u>	<u>Female</u>	<u>Female per 1000 males</u>	<u>Population</u>	<u>Male</u>	<u>Female</u>	<u>Female per 1000 males</u>
Thabgaon	571	287	284	990	598	304	294	967
Selarpur	944	449	495	1102	884	437	447	1022
Kuita	974	479	505	1065	1029	496	533	1074
Total	2499	1215	1284	1061	2511	1237	1274	1030

Table A-9

Sex Ratio (Child) in Rajasthan and West Bengal by age Group

(a) Rajasthan

<u>Age Group</u>	<u>Census 1971 (Rajasthan)</u>			<u>CHH, ISS 1976 (3 Selected Villages)</u>		
	<u>Male</u>	<u>Female</u>	<u>Female per 1000 males</u>	<u>Male</u>	<u>Female</u>	<u>Female per 1000 males</u>
0 - 4	22,554	21,245	941	108	85	787
5 - 9	20,501	18,343	895	125	80	640
10 - 14	16,556	14,909	901	146	94	644
<u>Total</u>	<u>59,611</u>	<u>54,497</u>	<u>917</u>	<u>379</u>	<u>259</u>	<u>683</u>

(b) West Bengal

<u>Age Group</u>	<u>Census 1971 (West Bengal)</u>			<u>CHH, ISS 1976 (3 Selected Villages)</u>		
	<u>Male</u>	<u>Female</u>	<u>Female per 1000 males</u>	<u>Males</u>	<u>Female</u>	<u>Female Per 1000 males</u>
0- 4	36,486	36,994	1,014	149	130	872
5 - 9	32,671	31,775	973	172	206	1,196
10 - 14	28,328	25,849	914	168	199	1,185
<u>Total</u>	<u>97,485</u>	<u>94,628</u>	<u>970</u>	<u>489</u>	<u>535</u>	<u>1,094</u>

Table A-10

Households classified according to Family Size

(a) Rajasthan

<u>Family Size</u>	<u>Etrampura</u>	<u>Mehtoli</u>	<u>Chentoli</u>	<u>Total</u>
1 - 2	5 (8.8)	14 (10.5)	18 (11.7)	37 (10.7)
3 - 5	24 (42.6)	44 (33.2)	64 (41.3)	132 (38.3)
6 - 8	21 (37.6)	45 (33.8)	56 (36.4)	122 (35.4)
9 - 11	7 (12.9)	12 (9.3)	13 (8.6)	32 (9.3)
12 +		8 (6.1)	4 (2.6)	12 (3.5)
<u>Total</u>	<u>57 (100.0)</u>	<u>133 (100.0)</u>	<u>155 (100.0)</u>	<u>345 (100.0)</u>
Average Family Size	5.2	5.3	4.9	5.1

Note: Figures in bracket indicate percentages)

Table A-11

Households classified according to Family Size

(b) West Bengal

<u>Family Size</u>	<u>Thabgaon</u>	<u>Selarpur</u>	<u>Kuita</u>	<u>Total</u>
1 - 2	20 (18.2)	37 (20.2)	51 (22.1)	108 (20.6)
3 - 5	39 (35.5)	83 (45.4)	112 (48.5)	234 (44.7)
6 - 8	35 (31.8)	47 (25.7)	53 (22.9)	135 (25.8)
9 - 11	13 (11.8)	12 (6.6)	14 (6.1)	39 (7.4)
12 +	3 (2.7)	4 (2.2)	1 (0.4)	8 (1.5)
<u>Total</u>	<u>110 (100.0)</u>	<u>183 (100.0)</u>	<u>231 (100.0)</u>	<u>524 (100.0)</u>

Average family
Size 5.4 4.8 4.4 4.8

Note: Figures in bracket indicate percentages.

Table A-12

Households classified according to Ethnicity and Religion

(a) Rajasthan

<u>Ethnicity</u>	<u>Etrampura</u>	<u>Mehtoli</u>	<u>Chentoli</u>	<u>Total</u>
Tribal	55 (96.5)	-	-	55 (15.9)
Non-tribal	2 (3.5)	133 (100.0)	155 (100.0)	290 (84.1)
<u>Total</u>	<u>57</u> <u>(100.0)</u>	<u>133</u> <u>(100.0)</u>	<u>155</u> <u>(100.0)</u>	<u>345</u> <u>(100.0)</u>

(b) West Bengal

<u>Religion</u>	<u>Thabgaon</u>	<u>Selarpur</u>	<u>Kuita</u>	<u>Total</u>
Hindu	55 (50.0)	95 (51.9)	14 (6.0)	164 (31.3)
Muslim	55 (50.0)	88 (49.1)	217 (94.0)	360 (68.7)
<u>Total</u>	<u>110</u> <u>(100.0)</u>	<u>183</u> <u>(100.0)</u>	<u>231</u> <u>(100.0)</u>	<u>524</u> <u>(100.0)</u>

Note: Figures in bracket indicate percentages.

Table A-13

Distribution of Households According to Landholding

(a) Rajasthan

<u>Land (In Bighas)</u>	<u>Etrampura</u>	<u>Mehtoli</u>	<u>Chentoli</u>	<u>Total</u>
Homestead	1 (1.8)	9 (6.8)	29 (18.7)	39 (11.3)
0 - 2.5	0	14 (10.5)	9 (5.8)	23 (6.7)
2.5 - 5	2 (3.5)	9 (6.8)	29 (18.7)	40 (11.6)
5 - 10	21 (36.8)	17 (12.8)	32 (20.6)	70 (20.3)
10 - 15	8 (14.0)	23 (17.3)	24 (15.5)	55 (15.9)
15 - 20	13 (22.9)	29 (21.8)	13 (8.4)	55 (15.9)
20 +	12 (21.1)	32 (24.1)	19 (12.3)	63 (18.3)
<u>Total</u>	<u>57</u> (100.0)	<u>133</u> (100.0)	<u>155</u> (100.0)	<u>345</u> (100.0)

Note: Figures in brackets indicate percentages.

Table A-14

Households Classified According to Landholding

(b) West Bengal

<u>Land (In Acres)</u>	<u>Thabgaon</u>	<u>Selarpur</u>	<u>Kuita</u>	<u>Total</u>
Landless	12 (10.9)	24 (13.1)	28 (12.1)	64 (12.2)
Homestead only	23 (20.9)	65 (35.5)	53 (22.9)	141 (26.9)
0.4 - 2.5	34 (30.9)	52 (28.4)	110 (47.6)	196 (37.4)
2.5 - 5	27 (24.5)	22 (12.0)	16 (6.9)	65 (12.4)
5 - 10	10 (9.0)	15 (8.2)	18 (7.8)	43 (8.2)
10 - 20	4 (3.6)	4 (2.2)	6 (2.6)	14 (2.7)
20+	1 (0.5)	1 (0.5)	-	1 (0.2)
<u>Total</u>	<u>110</u> (100.0)	<u>183</u> (100.0)	<u>231</u> (100.0)	<u>524</u> (100.0)

Note: Figures in bracket indicate percentages.

Table A-15: Occupational classification comparative data from Census 1961, Census 1971 and Census of Households ISS 76, for the Selected Villages

(a) Rajasthan

<u>Occupation</u>	<u>Name of Village</u>	<u>Census 1961</u>		<u>Census 1971</u>		<u>CHH, ISS 1976</u>	
		<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
Cultivators	Etrampura	79 (100.0)	85 (100.0)	78 (100.0)	0 (0.)	84 (92.3)	57 (90.5)
	Mehtoli	155 (79.08)	3 (3.94)	159 (74.3)	0 (0.0)	149 (66.8)	80 (69.0)
	Chentoli	145 (60.92)	131 (72.78)	184 (79.0)	9 (56.3)	117 (49.4)	98 (57.6)
Agricultural Labourers	Etrampura	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (5.5)	6 (9.5)
	Mehtoli	36 (18.37)	73 (96.05)	30 (14.0)	0 (0.0)	46 (20.6)	30 (25.9)
	Chentoli	68 (28.57)	41 (2.7)	17 (7.3)	5 (31.2)	68 (28.7)	61 (35.9)
Others	Etrampura	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.2)	0 (0.0)
	Mehtoli	5 (2.55)	0 (0.0)	25 (11.7)	0 (0.0)	28 (12.6)	6 (5.2)
	Chentoli	25 (10.50)	8 (4.44)	32 (13.7)	2 (12.5)	52 (21.9)	11 (6.5)

Note: Figures in brackets indicate percentages.

Table A-16

Occupational classification Comparative data from Census 1961,
Census 1971 and Census of Households ISS 76, for the Selected
Villages

(b) West Bengal

<u>Occupation</u>	<u>Name of Village</u>	<u>Census 1961</u>		<u>Census 1971</u>		<u>ISS Census</u>	
		<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
Cultivators	Selarpur	63 (28.77)	7 (25.0)	84 (31.58)	7 (9.59)	80 (34.3)	8 (14.5)
	Kuita	67 (30.45)	-	123 (45.72)	5 (50.0)	87 (30.3)	4 (16.7)
	Thabgaon	57 (40.71)	-	50 (42.74)	-	64 (41.3)	1 (10.0)
Agricultural Labourers	Selarpur	71 (32.42)	-	112 (42.10)	51 (69.86)	101 (43.3)	16 (29.1)
	Kuita	45 (20.45)	-	105 (39.03)	5 (50.0)	107 (37.3)	2 (3.6)
	Thabgaon	46 (32.86)	-	64 (54.70)	2 (100.0)	52 (33.5)	2 (20.0)
Others	Selarpur	85 (38.81)	21 (75.0)	70 (26.3)	15 (20.54)	52 (22.3)	31 (56.4)
	Kuita	108 (49.09)	2 (100.0)	41 (15.24)	-	93 (32.4)	18 (32.7)
	Thabgaon	37 (26.42)	3 (100.0)	3 (2.56)	-	39 (25.2)	7 (70.0)

Note: Figures in brackets indicate percentages.

Table A-17

Households Classified According to Occupations 1976 CHH. ISS(a) Rajasthan

	<u>Etrampura</u>	<u>Mehtoli</u>	<u>Chentoli</u>	<u>Total</u>
<u>Agriculture</u>				
Casual agricultural labour	2 (3.5)	15 (11.3)	19 (12.3)	36 (10.4)
Poor middle peasant	28 (49.1)	35 (26.3)	33 (21.3)	96 (27.8)
Big & middle peasant	15 (26.3)	40 (30.1)	40 (25.8)	95 (27.5)
Casual agricultural labour + attached agricultural labour	-	-	-	-
Casual agricultural labour + poor middle peasant	2	18 (13.5)	15 (9.3)	35 (10.1)
Casual agricultural labour + big & middle peasant	1	-	-	1
Poor middle peasant + big & middle peasant	3	2	2	7
Poor middle peasant + cultivator, only supervises work on farm	-	4	-	4
<u>Total</u>	<u>51</u> (89.5)	<u>114</u> (85.7)	<u>109</u> (70.3)	<u>274</u> (79.4)
<u>Non-Agriculture</u>				
Casual non-agricultural labour	-	2	3	5
Attached non-agricultural labour	-	-	-	-
Bonded non-agricultural labour	-	-	-	-
Household industry	-	7	3	10
Trade	-	-	2	2
Services	3	2	4	9
Service	-	1	-	1
Skilled labour	-	1	3	4
<u>Total</u>	<u>3</u> (5.3)	<u>13</u> (9.8)	<u>15</u> (9.7)	<u>31</u> (9.0)

Table A-18

	<u>Etrampura</u>	<u>Mehtoli</u>	<u>Chentoli</u>	<u>Total</u>
<u>Agricultural-cum-non-Agriculture</u>				
Casual agricultural labour + Household industry	-	-	3	3
Casual agricultural labour + Services	-	4	2	6
Casual agricultural labour + Service	-	-	5	5
Casual agricultural labour + Skilled labour	-	-	3	3
Poor middle peasant + Casual agricultural (non) labour	-	-	1	1
Poor middle peasant + household industry	-	-	4	4
Poor middle peasant + Services	1	-	2	3
Poor middle peasant + Skilled labour	2	2	8	12
Big and middle peasant + Services	-	-	2	2
Cultivator, only supervises work on farm + trade	-	-	1	1
<u>Total</u>	<u>3</u> (5.3)	<u>6</u> (4.5)	<u>31</u> (20.0)	<u>40</u> (11.6)
<u>Grand Total</u>	<u>57</u>	<u>133</u>	<u>155</u>	<u>345</u>

Note: Figures in brackets indicate percentages.

Table A-19

Households Classified According to Occupation 1976, CHH, ISS(b) West Bengal

<u>Agriculture</u>	<u>Thabgaon</u>	<u>Selarpur</u>	<u>Kuita</u>	<u>Total</u>
Casual agricultural labour	16 (14.5)	40 (21.4)	51 (22.1)	107 (20.4)
Attached agricultural labour	8 (7.3)	10 (5.5)	6 (2.6)	24 (4.6)
Bonded agricultural labour	-	-	1 (0.4)	1 (0.2)
Poor middle peasant	32 (29.0)	41 (22.4)	28 (12.1)	101 (19.3)
Big and middle peasant	6 (5.5)	9 (4.9)	14 (6.0)	29 (5.5)
Cultivator, only supervises work on farm	5 (4.5)	3 (1.6)	9 (3.9)	17 (3.2)
Landlord, who only leases out land	1 (0.9)	4 (2.2)	-	5 (1.0)
Casual agricultural labour + attached agricultural labour	4 (3.6)	-	5 (2.2)	9 (1.7)
Casual agricultural labour + poor middle peasant	4 (3.6)	7 (3.8)	4 (1.7)	15 (2.9)
Poor middle peasant + cultivator, only supervises work on farm	-	-	2 (0.9)	2 (0.4)
Attached agricultural labour + poor and middle peasant	2 (1.8)	3 (1.6)	1 (0.4)	6 (1.1)
<u>Sub-total</u>	<u>78</u> <u>(70.9)</u>	<u>117</u> <u>(63.9)</u>	<u>121</u> <u>(52.4)</u>	<u>316</u> <u>(60.3)</u>

Table A-20

	<u>Thabgaon</u>	<u>Selarpur</u>	<u>Kuita</u>	<u>Total</u>
<u>Non-Agriculture</u>				
Casual non-agricultural labour	2 (1.8)	3 (1.6)	2 (0.9)	7 (0.2)
Attached non-agricultural labour	1 (0.9)	-	1 (0.4)	2
Bonded non-agricultural labour household industry	-	6 (3.3)	6 (2.6)	12 (2.3)
Trade	2 (1.8)	6 (3.3)	37 (16.0)	45 (8.6)
Services	1 (0.9)	-	-	1
Service	3 (2.7)	1 (0.5)	5 (2.2)	9 (1.7)
Skilled labour	2 (1.8)	10 (5.5)	5 (2.2)	17 (3.2)
<u>Sub-total</u>	<u>11</u> (10.0)	<u>26</u> (14.2)	<u>56</u> (24.3)	<u>93</u> (17.7)
<u>Agriculture-cum-non-agriculture</u>				
Casual agricultural labour + non-agricultural labour (casual)	-	1	-	1
Casual agricultural labour + attached non-agriculture labour	-	1	1	2
Casual agricultural labour + household industry	-	2	-	2
Casual agricultural labour + Trade	-	-	8	8
Casual agricultural labour + Services	-	1	1	2
Casual agricultural labour + Skilled labour	11	7	3	21
Attached agricultural labour + household industry	-	9	-	9
Attached agricultural labour + trade	-	-	1	1

Table A-21

	<u>Thabgaon</u>	<u>Selarpur</u>	<u>Kuita</u>	<u>Total</u>
Attached agricultural labour + skilled labour	3	3	3	9
Bonded agricultural labour + services	-	-	1	1
Poor middle peasant + household industry	-	2	-	2
Poor middle peasant + Trade	1	2	10	13
Poor middle peasant + skilled labour	-	3	1	4
Big & middle peasant + household industry	-	-	1	1
Big & middle peasant + Trade	-	-	4	4
Big & middle peasant + Services	-	1	-	1
Cultivator, only supervises work on farm + Trade	1	2	1	4
Cultivator, only supervises work on farm + 28	1	-	-	1
<u>Sub-total</u>	<u>17</u> (15.5)	<u>34</u> (18.6)	<u>35</u> (15.2)	<u>86</u> (16.4)
Non-worker households	4 (3.6)	6 (3.2)	19 (8.2)	29 (5.5)
<u>Grand Total</u>	<u>110</u>	<u>183</u>	<u>231</u>	<u>524</u>

Note: Figures in brackets indicate percentages.

Table A-22

Work Participation rates of the General labour force male, and female labour force population by land classes in the surveyed villages of Rajasthan (Census of Households October 1976).

<u>Operated Land</u> <u>(In Bighas)</u>	<u>Work Participation Rates</u>		
	<u>Males</u> 1	<u>Females</u> 2	<u>General</u> 3
Landless	67.0	74.1	70.5
0.1 - Δ 2	69.9	47.4	58.5
2 - Δ 5	67.0	67.4	67.1
5 - Δ 10	67.5	57.6	63.1
10 - Δ 15	66.5	53.9	61.3
15 - Δ 20	50.9	52.1	51.1
Δ 20	63.7	52.0	59.6
<u>Overall</u>	<u>62.7</u>	<u>52.4</u>	<u>55.8</u>

Table A-23

Work participation rates of the general labour force population and male and female labour force population by land classes in the surveyed villages of West Bengal
(Census of Households December 1976)

<u>Operated Land (In Acres)</u>	<u>Work Participation Rates</u>		
	<u>Males</u>	<u>Females</u>	<u>General</u>
Landless	70.8	3.6	33.0
Homestead only	79.2	4.5	40.2
0.1 - < 1	69.3	2.5	36.7
1 - < 2	59.7	2.1	26.9
2 - < 3.5	56.5	6.0	30.2
3.5 - < 5.0	56.9	4.6	29.3
5.0 - < 7.5	48.9	1.8	23.3
7.5 - < 10.0	38.1	4.3	20.4
≥ 10	50.0	0.0	25.0
<u>Overall</u>	<u>63.5</u>	<u>3.2</u>	<u>33.4</u>

Work participation by 'hiring' status of households

The production relations canvassed in the household census O.1 included the following categories. Only hirer-out of labour (NHO), neither hirer out, nor hirer in of labour (N) and only hirer in of labour (NHI). This information was available for each gainfully employed member of the household.

Work participation by usual hiring status

The distribution of households by the above categories of 'hiring' and work participation rates in each category are presented in Table 2. For purposes of Table 2a household was classified as a hirer-out household even if a single member reported as hirer-out of labour. Those households in which all gainfully employed members reported exclusively self-sufficient cultivation were classified as neither hirer-in nor hirer-out households.

Table A24: Work participation rates by categories of 'hiring'
(Rajasthan)

<u>Household category</u>	<u>No. of Household</u>	<u>Work participation Rates</u>		
		<u>Males</u>	<u>Females</u>	<u>Children</u>
1) Only hiring-out labour (agricultural labour)	70	73.4	61.4	66.2
2) Neither hiring in nor hiring out labour (self sufficient cultivator household)	87	59.7	60.0	59.8
3) Only hiring in labour	110	63.8	45.6	55.0

Table 2b : Work participation by categories of hiring (West Bengal)

<u>Household category</u>	<u>No. of Household</u>	<u>Work Participation Rates</u>		
		<u>Males</u>	<u>Females</u>	<u>Children</u>
1) Only hiring out labour (agriculture labour household)	157	77.9	3.76	40.2
2) Neither hiring in nor hiring out labour (self sufficient cul- tivator household)	97	50.6	1.69	25.9
3) Only hiring in labour	48	45.7	8.11	28.2

Land holding/Hiring Status

Land holding data for Rajasthan shows that for the three villages considered together, 8.4% of the agricultural households were landless, 14.8% of agricultural households owned less than 1-5 bighas of land, 54.1% of agricultural households owned 5-20 bighas of land and 22.5 of the households owned more than 20 bighas. Assuming landholding to be a sufficient explanation of agricultural production relations, we would expect to find all the landless agricultural households reporting as agricultural labour and the bulk of agricultural labour to be provided by landless and poor peasant households owning less than 5 bighas. While this is largely true in the case of West Bengal (Table 3b) Table 3a provides contrary evidence.

Rajasthan

Households reporting at least one member in agricultural labour account for 32.4% of the households in agriculture, although landless households constitute only 8.4% of the household population. Evidently members of landed households offer their services as agricultural labour. In fact it is observed that households owning more than 5 bighas of land account for

38.2% of all agricultural labour households.

West Bengal

Land holding data shows that for the three villages considered together 33.8 of the agricultural households were landless or owned homestead land only, 33.3% of agricultural households owned 0.1 - 2 acres, 21.3% owned 2-5 acres, 11.2% owned more than 10 acres.

Households reporting atleast one member in agricultural labour account for 52.3% of the households in agriculture of which landless households and those owning only homestead land constitute 33.8%.

The inference that suggests itself is that whereas landlessness induces agricultural labour (all landless households in Table 3a and b report agricultural labour of at least one member), land ownership does not preclude it.

Table A25: Incidence of Households with agricultural labourers and size of landholding (Rajasthan)

<u>Operated Land (In Bighas)</u>	<u>No. of Agricultural Households</u>	<u>Household reporting at least one member in agricultural labour</u>	
Landless	24	24	(100%)
0-2	19	17	(89.57%)
2-5	23	16	(69.6%)
5-10	58	25	(43.1%)
10-15	47	4	(8.5%)
15-20	49	3	(6.1%)
20 & Above	64	3	(4.9)
<u>Total</u>	<u>284</u>	<u>92</u>	<u>(32.4%)</u>

Note: Figures in brackets indicate percentage of households reporting atleast one member in Agricultural labour to total of households in that land class.

Table A26: Incidence of households with agricultural labourers and size of landholding (West Bengal)

<u>Operated Land (In Acres)</u>	<u>No. of Agricultural Households</u>	<u>Households reporting at least one member in agricultural labour</u>	
Landless	28	28	(100%)
Homestead only	74	74	(100%)
0-1	66	41	(62.1%)
1-2	35	5	(14.3%)
2-3.5	35	8	(22.8)
3.5-5.0	30	2	(6.7%)
5.0-7.5	17	0	
7.5-10.0	8	0	
10	9	0	
<u>Total</u>	<u>302</u>	<u>158</u>	<u>(52.31%)</u>

Note: Figures in brackets indicate percentage of households reporting at least one member in agricultural labour to total number of households in that land class.

PROFILE OF SAMPLE HOUSEHOLDS

Table B -1

Sample Population Classified According to Age Groups

<u>Age Group</u>	<u>Rajasthan</u>			<u>West Bengal</u>		
	<u>Persons</u>	<u>Males</u>	<u>Females</u>	<u>Persons</u>	<u>Males</u>	<u>Females</u>
0 - 4	43 (15.6)	24 (16.3)	19 (14.7)	46 (13.9)	25 (14.7)	21 (13.0)
5 - 7	14 (5.1)	7 (4.8)	7 (5.4)	24 (7.3)	12 (7.1)	12 (7.5)
8 - 10	36 (13.0)	25 (17.0)	11 (8.5)	37 (11.2)	22 (12.9)	15 (9.3)
11 - 14	30 (10.9)	15 (10.2)	15 (11.6)	32 (9.7)	17 (10.0)	15 (9.3)
15 - 19	17 (6.2)	6 (4.2)	11 (8.5)	23 (6.9)	8 (4.7)	15 (9.3)
20 - 29	38 (13.8)	17 (11.6)	21 (16.3)	55 (16.6)	27 (15.9)	28 (17.4)
30 - 39	33 (12.0)	17 (11.6)	16 (12.4)	43 (13.0)	20 (11.8)	23 (14.3)
40 - 49	37 (13.4)	18 (12.2)	19 (14.7)	36 (10.9)	22 (12.9)	14 (8.7)
50 +	28 (10.1)	18 (12.2)	10 (7.8)	35 (10.6)	17 (10.0)	18 (11.2)
<u>Total</u>	<u>276</u> <u>(100.0)</u>	<u>147</u> <u>(100.0)</u>	<u>129</u> <u>(100.0)</u>	<u>331</u> <u>(100.0)</u>	<u>170</u> <u>(100.0)</u>	<u>161</u> <u>(100.0)</u>

Note: Figures in bracket indicate percentages.

Sex Ratio in The Sample Households

Rajasthan				West Bengal			
Total	Male	Female	Female per 1000 males	Total	Male	Female	Female per 1000 males
276	147	129	877	331	170	161	947

Child Sex Ratio

Age Group	Rajasthan				West Bengal			
	Total	Male	Female	Female per 1000 males	Total	Male	Female	Female per 1000 males
0 - 4	43	24	19	791	46	25	21	840
5 - 14	80	47	33	702	91	49	42	893
0 - 14	123	71	52	732	137	74	63	851

Table B -3

Sample Population Classified According to Family Size

<u>Family Size</u>	<u>Rajasthan</u>			<u>West Bengal</u>		
	<u>Persons</u>	<u>Males</u>	<u>Females</u>	<u>Persons</u>	<u>Males</u>	<u>Females</u>
1 - 2	6 (2.2)	2 (1.4)	4 (3.1)	16 (4.8)	8 (4.7)	8 (5.0)
3 - 5	54 (19.6)	32 (21.8)	22 (17.1)	143 (43.2)	75 (44.1)	68 (42.3)
6 - 8	125 (45.4)	65 (45.6)	60 (46.5)	89 (26.9)	44 (25.9)	45 (27.3)
9 - 11	72 (26.3)	39 (26.5)	33 (25.6)	56 (16.9)	29 (17.1)	27 (16.8)
12 +	19 (6.9)	9 (6.1)	10 (7.8)	27 (8.2)	14 (8.2)	13 (8.1)
<u>Total</u>	<u>276</u> <u>(100.0)</u>	<u>147</u> <u>(100.0)</u>	<u>129</u> <u>(100.0)</u>	<u>331</u> <u>(100.0)</u>	<u>170</u> <u>(100.0)</u>	<u>161</u> <u>(100.0)</u>

Note: Figures in bracket indicate percentages.

Table B -4

Sample Population Classified by Ethnicity and Religion

<u>Tri Ethnicity</u>	<u>Ethnicity</u>	
	<u>Persons</u>	<u>Rajasthan</u> <u>Males</u> <u>Females</u>
Tribal	37 (13.4)	22 (15.0) 15 (11.6)
Non-tribal	239 (86.6)	125 (85.0) 114 (88.4)
<u>Total</u>	<u>276</u> <u>(100.0)</u>	<u>147</u> <u>(100.0)</u> <u>119</u> <u>(100.0)</u>

<u>Religion</u>	<u>West Bengal</u>	
	<u>Persons</u>	<u>Males</u> <u>Females</u>
Hindu	100 (30.2)	55 (32.4) 45 (28.0)
Muslim	239 (69.8)	125 (67.6) 116 (72.0)
<u>Total</u>	<u>331</u> <u>(100.0)</u>	<u>170</u> <u>(100.0)</u> <u>131</u> <u>(100.0)</u>

Note: Figures in bracket indicate percentages.

Table B - 5 - 42 -

Sample Population Classified According to Land Ownership

<u>Land in Bighas</u>	<u>Rajasthan</u>			<u>Land in Acres</u>	<u>West Bengal</u>		
	<u>Persons</u>	<u>Males</u>	<u>Females</u>		<u>Persons</u>	<u>Males</u>	<u>Females</u>
Landless	-	-	-	Landless	97 (29.3)	54 (31.8)	43 (26.7)
Homestead	39 (14.1)	16 (10.9)	23 (17.8)	Homestead	59 (17.8)	29 (17.0)	30 (18.6)
0 - 2	41 (14.9)	24 (16.3)	17 (13.2)	0.5-4.5	65 (19.6)	32 (18.8)	33 (20.5)
2 - 5	32 (11.6)	15 (10.2)	17 (13.2)	4.5-10	42 (12.7)	22 (12.9)	20 (12.4)
5 - 10	42 (15.2)	24 (16.3)	18 (14.0)	+ 10	68 (20.5)	33 (19.4)	35 (21.7)
10 - 15	37 (13.4)	20 (13.6)	17 (13.2)				
+ 15	85 (30.8)	48 (32.7)	37 (28.7)				
<u>Total</u>	<u>276</u> <u>(100.0)</u>	<u>147</u> <u>(100.0)</u>	<u>129</u> <u>(100.0)</u>	<u>Total</u>	<u>331</u> <u>(100.0)</u>	<u>170</u> <u>(100.0)</u>	<u>161</u> <u>(100.0)</u>

Note: Figures in bracket indicate percentages.

Sample Population Classified According to Type of Households

	<u>Rajasthan</u>			<u>West Bengal</u>		
	<u>Persons</u>	<u>Males</u>	<u>Females</u>	<u>Persons</u>	<u>Males</u>	<u>Females</u>
A0 1.02	96 (34.8)	54 (36.7)	42 (32.6)	110 (33.2)	56 (32.9)	54 (33.6)
A0 4.05	123 (44.5)	67 (45.6)	56 (43.4)	81 (24.5)	42 (24.7)	39 (24.2)
B	20 (7.2)	9 (6.1)	11 (8.5)	57 (17.2)	28 (16.5)	29 (18.0)
C	37 (13.4)	17 (11.6)	20 (15.5)	83 (25.0)	44 (25.9)	39 (24.2)
<u>Total</u>	<u>276</u> <u>(100.0)</u>	<u>147</u> <u>(100.0)</u>	<u>129</u> <u>(100.0)</u>	<u>331</u> <u>(100.0)</u>	<u>170</u> <u>(100.0)</u>	<u>161</u> <u>(100.0)</u>

Note: Figures in bracket indicate percentages.

SOME ADDITIONAL DATA ON VILLAGE PRICES/WAGES

Table C -1

Retail prices of selected items
from the nearest town (Bhusawan) 1977

<u>Items</u>	<u>Market price</u>	<u>Village price</u>
Sugar	Rs. 3.50 per kg	
Urad Dal	Rs. 4/- ""	
Moong Dal	Rs. 3.25 ""	
Cumin-seed	Rs. 18/- ""	
Aniseed	Rs. 4/- ""	
Turmeric	Rs. 8/- ""	
Loaf-sugar	Rs. 2.25 ""	
Custard oil	Rs. 10.50 "	
Milk	Rs. 2.50 ""	Rs. 2/- per kg } in
Ghee	Rs. 25/- ""	Rs.23/- per kg } winter
	Rs. 26/- ""	Rs.24/- or Rs. 25/- per kg (in summer)

Table C -2

Assets of selected households

MAHTOLI (Rajasthan)

Name of Head of Households	Particulars		
	Utensils (In Rs.)	Furniture (In Rs.)	Bicycle (No.)
1. Manhori	1000	100	1
2. Pyar Singh	300	150	-
3. Tulai	200	100	-
4. Gharsi	150	150	-
5. Hukmi	150	100	-
6. Khema	100	100	-
7. Shrawan	150	100	-
8. Lachman	150	50	1
9. Yadram	350	300	-
10. Mrs Shriram	50	50	-
11. Bhoti (w/O Ramji)	100	80	-

CHAINTOLI (Rajasthan)

1. Santo	150	30	-
2. Tibea	550	100	-
3. Bisin	40	180	1
4. Suraj	250	80	1
5. Babu	200	40	-
6. Bahadur	150	120	1
7. Mamhori	100	150	-

WAGE RATES IN VILLAGES 1977

<u>Particulars</u>	<u>Mahtoli</u>	<u>Chaintoli</u>	<u>Entrampura</u>
1. Ag. labour for ploughing	Rs. 8/- per bigha	Rs. 8/- per bigha	Rs. 7/- per bigha
2. Weeding	Rs. 2/- to Rs. 4/-	Rs. 2/- to Rs. 3/-	Rs. 5/-
3. Watering the field with traditional charas	Rs. 5/-	Rs. 5/-	Rs. 5/-
4. Mirch plucking	Rs. 2/- or 2- 2½ kg Mirch	Rs. 2/- or 1½ - 2½ kg Mirch	2 Kg Mirch
5. Winnowing	Rs. 2.50/Rs. 3/-	Rs. 2.50 - Rs. 3/-	-
6. Labour at harvest time:			
(i) Rabi	5 kg grain	5 Kg grain	5 Kg grain
(ii) Kharif	Rs. 5/-	Rs. 5/-	Rs. 5/-
<u>3.4.82</u>			
7. Transplanting	Rs. 4/ or 5/-	1/- to 1.25	-
8. Groundnut collector	2/- to 4/-	2/- to 3/-	-
9. To cow boys for cattle grazing	5/- per month for one buffalo	Rs. 10/- per month for one buffalo	-
10. Arhar Thakra	2/- to 3/-	-	5/-
11. Watering the field by making mud-rows (especially for Mirch)	5/- (day time) 6/- (night time)	-	7/-
Hours for work	7.00 AM to 7.30 - 8.00 PM 9.00 AM to 6.00 - 6.30 PM	- In summer season - In winter season.	

Appendix III

Muluk

MULUK - A Time Disposition Study

Muluk is a village near Bolpur town in Birbhum District (Sadar Sub-Division), West Bengal, with a population of 1452 of whom 762 are males and 690 females (Census 1971).

27.5% of the population belongs to the Scheduled Castes and 20% belongs to the Scheduled Tribes, together accounting for 47.5% of Muluk's population.

According to the 1971 Census Handbook of Birbhum District, the general participation rate* of the village is 23.2%. Of a total 337 workers in the village 329 are males and 8 are females of whom 6 are agricultural labourers. Thus while the male participation rate is 43.2% the female participation rate is as low as 1.16%. This is in spite of a high percentage of Scheduled Castes and Tribes in the population. The male workers are equally divided into cultivators and agricultural labourers.

A time disposition recording through direct observation of all activities was done for females of selected households in Muluk village for two months from the 14th July-13th September 1976. This involved a recording of the sequence and duration of an individual's activities over a specific day with a view of analysing reasons for differences in the allocation of time in the different households.

The survey was conducted by a female. She was given a free style Questionnaire with timings given one side and space for free recording of activities on the other. The investigator was located in the village for the 8 week period. This was to be a trial run for the 52 week observation that was to be carried out in villages in Rajasthan and West Bengal.

Five households were selected for the survey. The total population of the household was 39, of whom 10 were males, 15 females and 14 children. Only adult females were observed. 5(33.3%) of the observed females engaged in gainful activity either as wage labourers or as domestic workers (maid servants)

* Work participation rate is defined as the ratio of gainfully employed persons to total population.

Although the sample was not selected within the framework of a statistical design, the sampled households represented a cross section of occupations and resource positions that ranged from households that were landless to those that owned 125 bighas of land.

Table below gives the distribution of households according to certain characteristics.

Table -1

Name of Household	Occupation of head of household	Size of household.			Ownership of land.	Ownership of live-stock.	Ownership of plough.
		M	F	C			
1. Sardarni	Agricultural labour	1	2	4	No land	-	-
2. Meajhan	"	2	3	2	"	-	-
3. Patra	Milk business* cultivation	3	3	5	3 Bighas (leased land)	2	1
4. Tagore	Employer/ Owner of rice mill	2	4	2	30 bighas (own land)	4	2
5. Saha	Supervisor of cultivation	3	3	1	125 bighas (own land)	10	5

Table - 2

Work Participation Rates - Some Comparative Figures from West Bengal

I MULUK VILLAGE BIRBHUM DISTRICT Data from 1971 Census.			II. Data from 5 selected households. July-Sept., 76			III. 3 Selected villages * Time allocation Study** Birbhum Dist. Data from NSS 32nd Round Schedules Canvassed by ISS Investigators in sample households Nov. 1977			IV. Data from Time Allocation Study Phase I June-July, 1977		
Total Popu- lation	No. of workers	Percen- tage of workers	Total in sample	No. of workers	Percen- tage of workers	Total in sample	No. of workers	Percen- tage of workers	Total in sample	No. of work- ers	Percen- tage of workers
1.	2.	3.	4.	5.	6.	7.	8.	9.	10	11.	12.
1452	337	23.2	39	14	35.9	317	107	33.8	293	163	55.9
Males 762	329	43.2	10	9	90.0	116	95	81.9	98	90	91.8
Females 690	8	1.16	15	6	40.0	115	4	3.4	99	30	30.3
Children	-	-	14	1	7.1	86	8	9.3	96	43	44.8

I. The 1971 Census definition of 'worker' was one whose main activity was work. In the case of seasonal activity, a person's main activity was ascertained with reference to such work as in the last year. In the case of regular work the reference period of one week was adopted.

Worker was defined as person who engaged in more than 1 hour on an average in gainful activity in the recorded week.

The NSS round also uses the time criterion in its definition of worker. A person is considered to be working if he while pursuing any gainful occupation worked for atleast one hour or at least one day during the week preceeding the survey, as in III.

* The villages selected were Kuita, Selarpur and Thabgaon in P.S. Dubrajpur, Dist. Birbhum.

** Time allocation study was conducted by the Institute of Social Studies sponsored by the Indian Council for Social Science Research.

While the NSS 32nd Round schedule and Time Allocation Study was canvassed on some set of households, difference in sample size were due to the fact that in the Time Allocation Study those not in village were not observed and excluded from the sample. The slightly lower number of children could be a 1 year difference in the reporting age.

Table - 3

Average No. of Hours spent per day by females in selected households.

	Land in Bighas	Personal	Gainful activity	Household chores
Sardarni	Landless	3.06	8.18	1.11
Meajhen	Landless	3.03	7.05	2.30
Patra	3(leased in)	4.37	-	8.56
Tagore	30	7.29	0.07	5.17
Saha	125	5.10	-	7.34

While it is recognised, the sample is too small for making generalisations some of the findings of the survey are presented below :

5

Determinants of female labour supply

Land :

It is households that can be grouped as belonging to the lowest income deciles such as agricultural labourers that females have to work for their living. They spend a large proportion of their time in gainful employment unlike the women of the land owning families. Thus it is land and resources associated with it that seem to be chief determinant of female labour supply.

Irrespective of age, marital status or family size all females from the Sardarni and Meajhen households had to engage in gainful work working either as agricultural labourers planting paddy, cutting grass or digging for 7-8 hours a day or work in others houses sweeping, washing clothes and utensils. One of the females of the landless households was engaged as a daily labourer indulging in the arduous tasks of carrying and breaking bricks, mixing cement for 10-11 hours a day. Females from landless households spent much less time in activities such as resting, gossiping, braiding hair and bathing than females from the landowning families. In the Tagore household the two daughters spent an average of 5 hours in attending educational institutions, 2 hours in resting and half an hour in cleaning, sweeping and washing.

It seems that in the poorer households as living becomes more difficult, women enter into the labour market, while in the more prosperous households they opt for leisure, attend educational institutions or spend more time in household chores.

Family Size

The larger the size of family the more the household work. At the same time the more the members, greater is the support a housewife gets. However, the time allocation of the selected households in Muluk did not suggest family size to be a determinant of female labour supply.

Thus while the Sardarni, Meajhen and Tagore's had the same family size they had very different time allocational patterns. The Sardarni and Meajhen households which were landless spend only 1-2 hours in household chores while the Tagore household owning 30 bighas spends an average of 5 hours. On the other hand while the Sardarni and Meajhen households spend 7-8 hours in gainful activity, the Tagore household spend only 0.7 minutes. This seems to show that it is

landholding rather than family size that determines time allocation of females and their labour supply.

Age :

Our sample revealed that while the females of the landless families have to work outside irrespective of age, within households there are differences in allocation of time in different household chores. Thus each household allocates its total time resources not only among activities, but also among members. Taking the case of the Patra household it was observed that while each woman engaged in household chores, Anna and Renuka ages 20,21 spent more time on the strenuous tasks of washing clothes and fetching water and fuel. The less strenuous task of cooking was left mainly to Usha (50).

Dependency Ratio

The number of children in a household can also determine the female labour supply to a large extent. However, this was not revealed in our sample. However, it could be a factor in explaining why the Patra household which has 5 children spends a much greater time in household chores (8.15 hours) especially child care in contrast to other landed households which spend 5 to 7 hours.

Limitations

A major limitation in the recording of time disposition in Muluk was that it was limited to the adult women in the house-holds. It is recognised that since time allocation of one member is influenced and in turn influences other members of the household The **exclusion** of men and children from the observation prevented any sort of correlation between the activities of all the members.

The activities of the women were recorded for at least 7 days continuously in each household. However, it was not clear how the investigator observed the activities of 6 women in 2 to 3 households simultaneously. It is possible that the investigator used the data for previous days. In this case the 'observation' technique which was the core of the methodology was violated.

The recording extends from 5 a.m. to 6 a.m. only. The activities of the women beyond these hours are lost to the survey.

The observation was done for too short a time to be able to observe any sort of seasonal variation in the time allocation of the different women.

There was no standard number of weeks for which the different households were observed. The Tagore household being observed for only four weeks while the others were observed for 6 weeks. Again not all the adult women were observed during each period- 3 Tagore women being observed from 23-30th July and only one from 1-20th August.

Division
HOUSEHOLD

8. Washing clothes in the house
Cooking in the house
Child care
Washing clothes in the house
DAILY ACTIVITIES OBSERVED OF AN INDIVIDUAL HOUSEHOLD

2. Putting clothes
Cutting grass
Looking after the house

It is recognized that the time allocation of the women in the household is not constant and that the activities observed are not necessarily the same for all women in the household. The activities observed are those which are common to all women in the household and are those which are considered to be of major importance.

The activities observed are those which are common to all women in the household and are those which are considered to be of major importance. The activities observed are those which are common to all women in the household and are those which are considered to be of major importance.

6. Child care
7. Putting clothes
8. Cutting grass
9. Looking after the house
10. Washing clothes in the house
11. Cooking in the house
12. Child care

CODESPERSONAL

1. Eating, sleeping, attending educational institutions
2. Leisure activities/gossip
3. Attending educational institutions

GAINFUL

4. Working as wage labourer/maid servant
5. Cultivation/Supervision on own farm etc.

HOUSEHOLD CHORES

6. Cooking and related activities
7. Child care
8. Fetching water and fuel
9. Washing and sweeping floors.

GAINFUL ACTIVITIES OBSERVED of an agricultural labourer

1. Digging
2. Planting paddy
3. Cutting grass
4. Plucking greens - 7-8 hours

of a daily labourer

1. Carrying bricks
2. Breaking Bricks
3. Mixing Cement
4. White wash preparing - 10 hours

of a maid servant

1. Sweeping
2. Cleaning
3. Collecting cow dung
4. Fetching water
5. Washing clothes
6. Child care

AVERAGE TIME SPENT PER DAY (IN HOURS)SARDARNI

	<u>SHANTI</u>	<u>PHATUNA</u>
Relationship to head of household	: Wife	: Daughter
Education	: Illiterate	: Illiterate
Occupation	: Maid Servant	: Maid
Age	: 34	: 15

1.	2.56	3.17
2.	-	-
3.	-	-
4.	10.10	6.26
5.	-	-
6.	-	1.0
7.	-	0.43
8.	-	0.5
9.	-	0.34

MEAJHEN

	<u>PAKU</u>	<u>SUNDARI</u>	<u>TALAKURI</u>
Relationship to household	: Wife	Daughter	Daughter
Education	: Illiterate	Illiterate	Illiterate
Occupation	: Agr. labour	Daily labourer	Daily labourer
Age	: 45	22	18

1.	3.08	2.38	3.04
2.	0.08	0.04	0.04
3.	-	-	-
4.	7.26	6.51	7.38
5.	-	-	-
6.	0.47	0.31	0.38
7.	-	1.13	-
8.	0.47	0.21	1.04
9.	0.38	0.47	0.56

AVERAGE TIME SPENT PER DAY (IN HOURS)PATRA

	<u>USHA</u>	<u>RENUKA</u>	<u>ANNA</u>
Relationship to head of household :	Wife	Daughter-in-Law	Daughter-in-Law
Education :	Illiterate	Upto Class III	Upto Class III
Age :	50	31	20
1	5.09	3.38	4.34
2	0.25	-	0.05
3	-	-	-
4	-	-	-
5	-	-	-
6	6.33	4.21	3.58
7	-	1.04	-
8	0.02	0.09	2.03
9	1.12	3.54	2.03

TAGORE

	<u>SATYAVATI</u>	<u>BANUSREE</u>	<u>TRIPTI</u>
Relationship to head of household :	Wife	Daughter	Daughter
Education :	Class III	Class IX	Class X
Occupation :	Domestic work	Student and domestic work	Student and domestic work
Age :	44	22	20
1	4.23	4.17	5.04
2	-	0.13	0.13
3	-	4.23	4.00
4	-	-	-
5	-	0.21	-
6	5.47	0.56	1.13
7	-	-	0.08
8	0.26	0.13	0.26
9	2.21	2.00	2.17

AVERAGE TIME SPENT PER DAY
(IN HRS.)

SAHA

	<u>Tarulata</u>	<u>Durgabala</u>
Relationship to head of household :	Wife	Mother
Education :	Class III	Illiterate
Occupation :	Agr. Labourer	Domestic work
Age :	38	60
1	3.40	6.36
2	-	0.04
3	-	-
4	-	-
5	-	-
6	6.03	4.37
7	-	-
8	1.28	1.40
9	-	-

MULUK

CENSUS 1971

Area of village in hectares :	244.44 (555 acres)
Occupied Residential Houses :	271
No. of households :	271
Population :	1452 Male: 762 Female: 690

Scheduled Castes	218	188
Scheduled Tribes	151	140
Literate and educated persons	181	48
Total workers	329	8
Cultivators	149	6
Agricultural labourers	158	1
Livestock, forestry	-	-
Mining Quarrying	-	-
Household industries	-	-
Other than household industry	3	0
Construction	-	-
Trade and Commerce	2	-
Transport storage and communication	-	-
Other services	17	1
Non-workers	4338	682

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