TECHNICAL SEMINAR ON

WOMEN'S WORK AND EMPLOYMENT

SEMINAR PAPERS

INSTITUTE OF SOCIAL STUDIES TRUST
M-1, Kanchanjunga, 18, Barakhamba Road,
New Delhi
1982

Price Rs. 80/-

LIST OF TABLES

LIST OF TABLES (contd)

LIST OF GRAPHS

ACKNOWLEDGEMENT

We are grateful to the Indian Council for Social Science Research and particularly to its former Member Secretary, the late Dr. J.P. Naik, and its present Member-Secretary, who was then Director(Research) Dr. D.Narula, for their support and patience.

Several persons have spared time and their knowledge to help us set up the framework. These are Ashok Rudra, Pranab Bardar, Pradhan Prasad, Raj Krishna, T.N. Srinivasan, R.Thamarajakshi V.M.Dandekar, K.C. Seal and S.C.Chaudhri. We are indebted to them for their interest.

The National Sample Survey Organisation, Department of Statistics, Ministry of Planning, Government of India, have given invaluable help in setting up the project in the field. S.K.Sanyal, Sudhir Bhattacharya, N.R.Jha, M.R.Sood, K.V.Rao, S.K.Sehgal are only a few of the many who have spared their time generously throughout the survey and during tabulation.

Uma Dasgupta of Viswa Bharati University supervised field work in West Bengal. H.Laxminarayan, Agro Economic Research Centre, University of Delhi organised the processing of the data at the Delhi University Computer Centre. Shobha Jaishankar and Mukul Mukherjee have helped to complete the final manuscript. We acknowledge the help of all these persons with gratitude and most of all the courage and enthusiasm of our investigators, Rekha Roy, S.Almelu, R.Susheela, Seema Adhikari, Aarti Das, Tanushree Roy and Vijaylakshmi.

However, we are responsible for any inadequacies in the paper.

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
Kuita	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	[illegible]	55	9
	Bardwan	54	9
Orissa		61	27
	Sambalpur	65	40
Bihar		56	27
	Shahbad	53	20
Madhya Pradesh		60	44
	Raipur	62	53
Andhra Pradesh		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 operation 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 Bangal (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
Total	37.09	31.55	9.38	1.19	3.37

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 homestead	28.25	11.71	5.43	2.46	1.89
0.00 with owned homestead	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
Total	37.09	31.55	9.38	1.19	3.37

* 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, thismay 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 Bhirbhum 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 Gillean Hart.

2.16 It is probably true to saytthat 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 subsistance, 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 inkthe 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 (i)	NSS 32R '77-'78 (ii)	ISS Census 1976	NSS/ISS 32R 1977 (i)	NSS/ISS 32R 1977 (ii)	Time Disposition 1976-77
Adults (15-59)									
Rajasthan									
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
West Bengal									
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
Children (0-14)									
7) Children	15	6	-	-	-	28	14	34	56
8) Males	16	8	-	-	-	29	14	20	45
9) Females	14	3	-	-	-	27	14	48	69
West Bengal									
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 centra, in the West Bengal sample, home based production of 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 <u>same range of intensity</u> 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	162	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	0.33	-
Harvesting	-	-	0.63	0.03	0.04	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	-
* Total Agriculture	0.14	0.05	1.07	0.08	3.47	0.24	4.12	0.59	4.54	0.49	3.77	0.07
Husking winnowing parboiling grain husking	-	-	-	0.09	0.14	0.14	0.28	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
* Total Allied	1.56	0.14	3.36	0.80	3.15	0.30	0.77	0.27	0.47	0.69	0.37	0.41
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 (stationery, 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
* Total Non-Agricultural	0.21	0.18	0.31	1.72	0.99	1.44	1.62	1.20	2.58	0.76	2.16	1.59
Cooking (grinding, cutting, chopping, clearing)	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
* Total Household Activities	0.74	1.10	0.60	2.81	0.27	4.31	0.18	5.72	0.10	6.39	0.08	3.16
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
* Total Child Activities	4.19	4.92	1.90	1.81	0.08	0.25	0.11	0.48	-	0.19	0.04	0.62

NOTE : * Totals include activities not here listed.

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

Age	5-9		9-14		14-19		19-34		34-44		44-70	
	M	F	M	F	M	F	M	F	M	F	M	F
No. of Sample	97	87	154	138	63	58	180	215	91	98	160	91
Ploughing Digging	-	-	0.05	-	0.57	-	0.75	-	0.87	-	0.79	-
Irrigation fields	-	-	0.10	-	0.39	-	0.49	-	1.61	-	0.70	-
Harvesting	-	-	0.05	0.08	0.14	0.35	0.10	0.04	-	0.25	0.06	0.21
Groundnut picking	-	0.34	0.02	0.29	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
*Total Agriculture	0.51	1.63	1.38	3.06	2.00	2.98	2.75	2.44	6.31	3.62	4.04	3.05
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	0.58	0.55
Making cow-dung cakes	-	0.16	-	0.33	-	0.20	-	0.18	-	0.17	-	0.10
*Total Allied	1.15	1.28	0.94	1.60	1.28	1.09	0.68	1.13	1.38	1.38	1.21	1.43
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	-
*Total Non-Agricultural	-	-	0.16	0.04	1.76	0.04	2.70	0.10	1.00	0.04	0.37	0.09
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	-	0.62	-	0.52	0.01	0.41	0.03	0.23
Fetching fuel	-	0.01	-	0.07	-	0.04	-	0.08	-	0.09	-	0.09
*Total Household Activities	0.01	0.89	0.10	1.75	-	3.66	0.05	4.05	0.14	4.33	0.25	2.47
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
*Total Child Activities	4.42	3.77	4.15	1.97	2.33	0.34	0.08	1.17	0.18	0.63	0.15	0.92

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 :

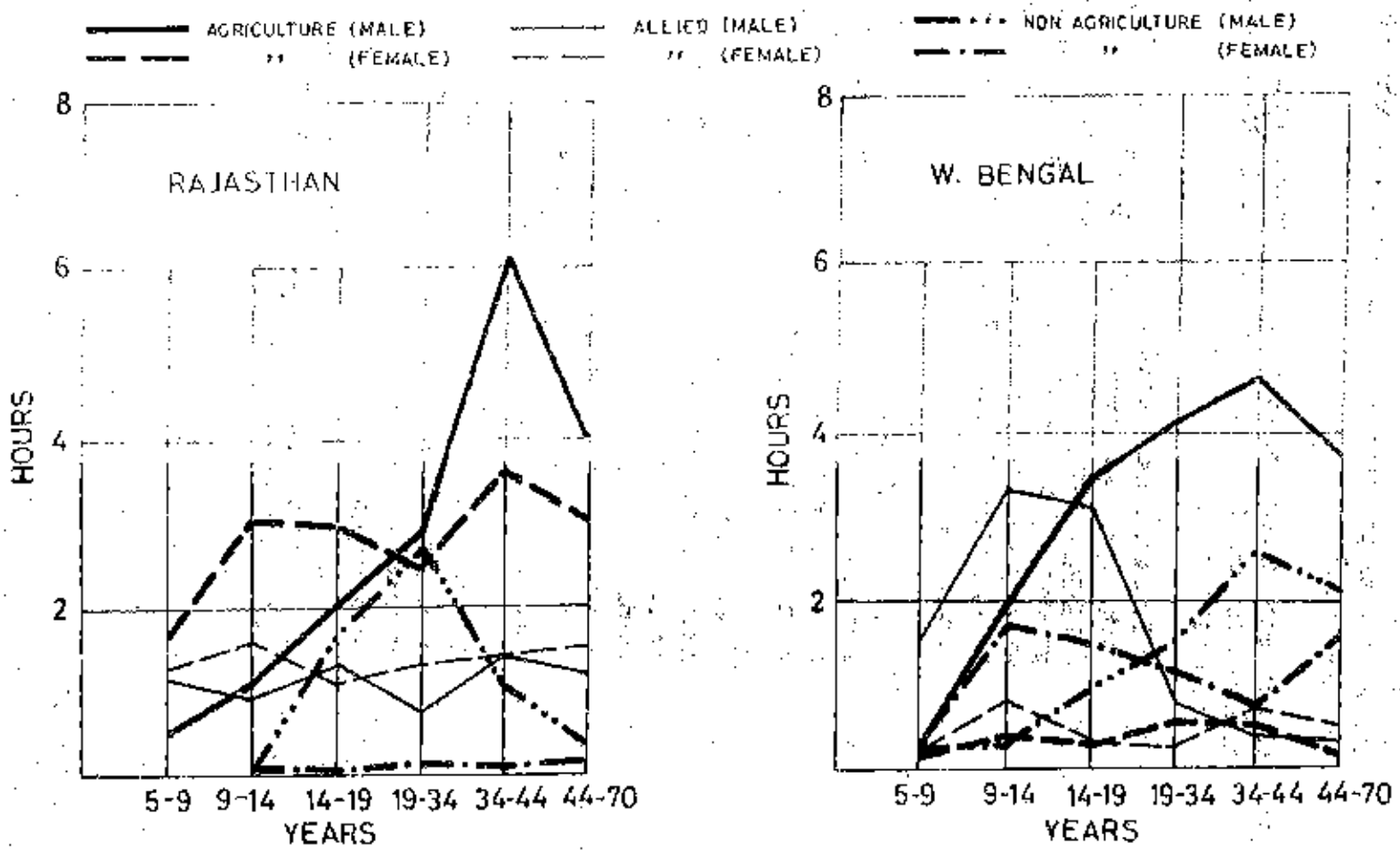
a) In Rajasthan four out of the 37 women who reported as non-workers in the schedule (Code 42-43), were in fact spending upto 4 hours a day in activities such as groundnut picking and sowing the field. 9 others who reported as non-workers were grazing cattle and cutting grass for more than 1 hour. Thus 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 (DURATION) OF PARTICIPATION IN ECONOMIC SECTORS



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 words 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~~ duration) of work in domestic work 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~~ duration of 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~~ duration 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 2-½ 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 females 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~~ duration 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 seem 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

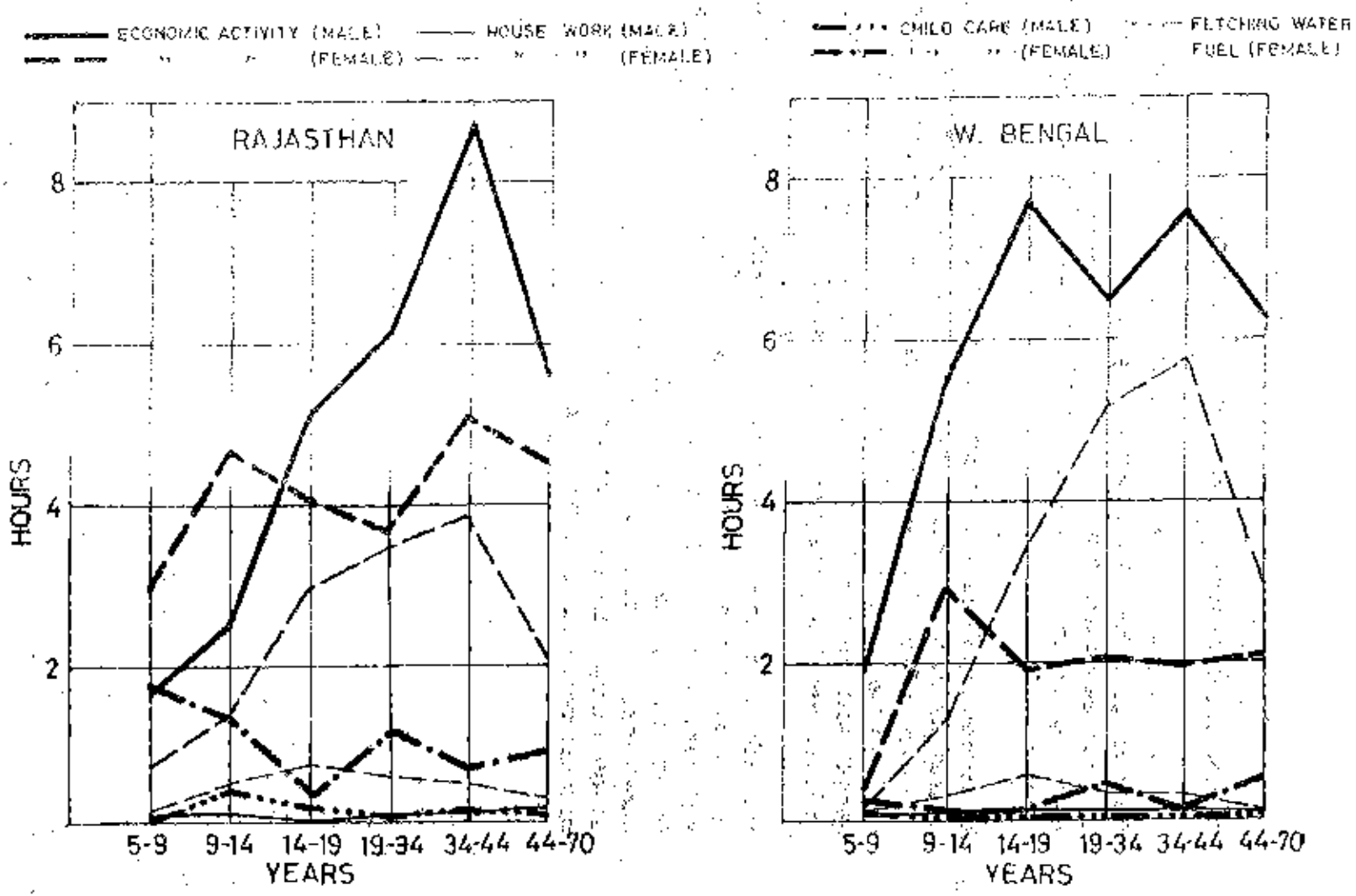
similar to the pattern in Rajasthan amongst females in agriculture.

Another observation is the low ~~intensity~~ duration 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 B is the shape of the female housework curves. Though the curve is at a higher level of hours ~~intensity~~ worked 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~~ for unusually long time in Rajasthan.

AGE/SEX SPECIFIC INTENSITY (DURATION) 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~~ amount 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 thetwo districts, coincidental, as it may seem, it was found that peak and lean agricultural seasons 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 vegetables
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~~ duration 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~~ duration 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.

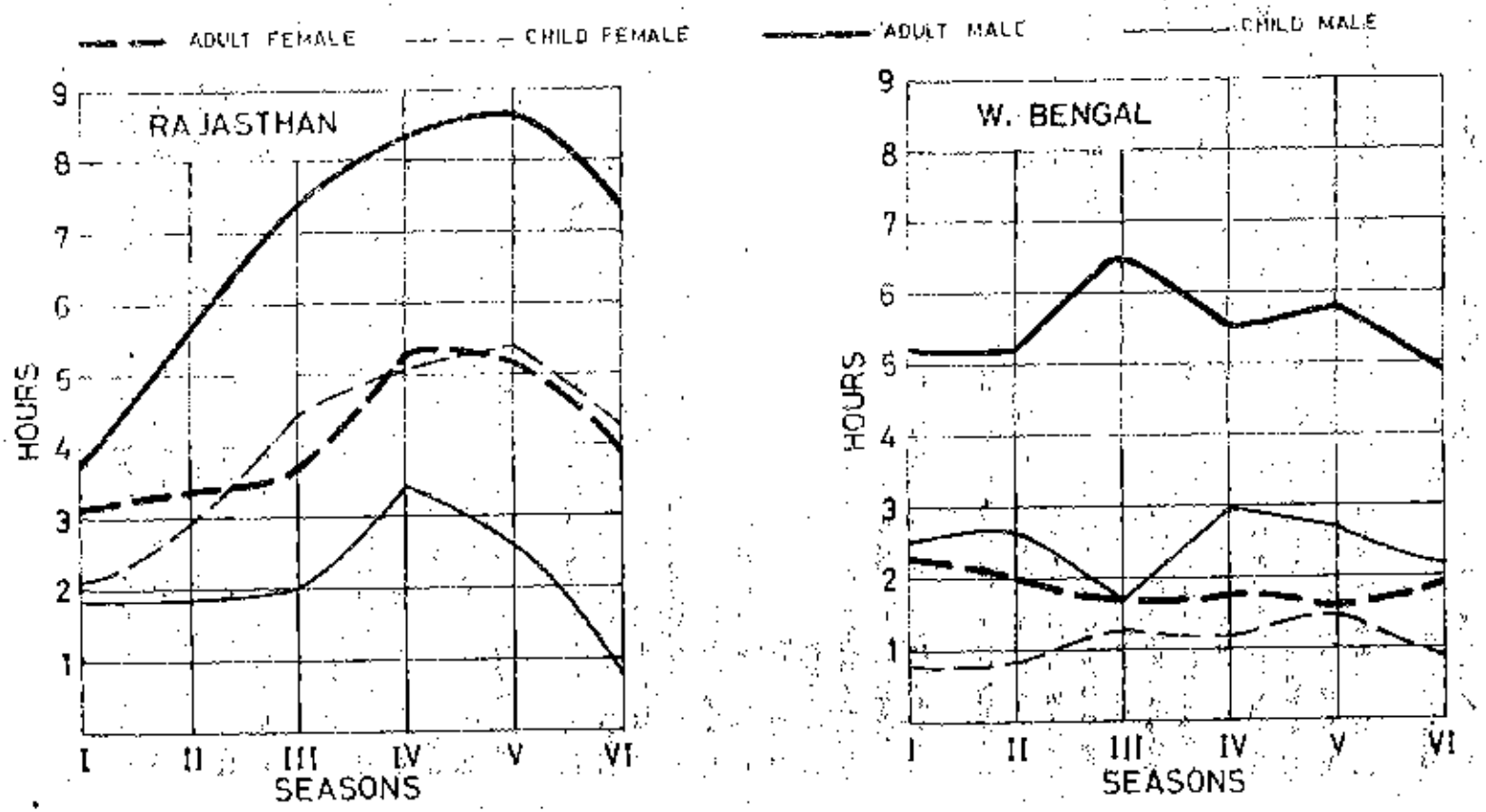
4.5 Graph C3 and C4 show the seasonality in household work. Females peak marginally in household work in West Bengal coinciding with harvesting of Aman and sowing of Boro. In Rajasthan again the very marginal rise in hours spent on household work coincides with the rise in hours spent on harvesting. 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~~ time consuming 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

(DURATION)

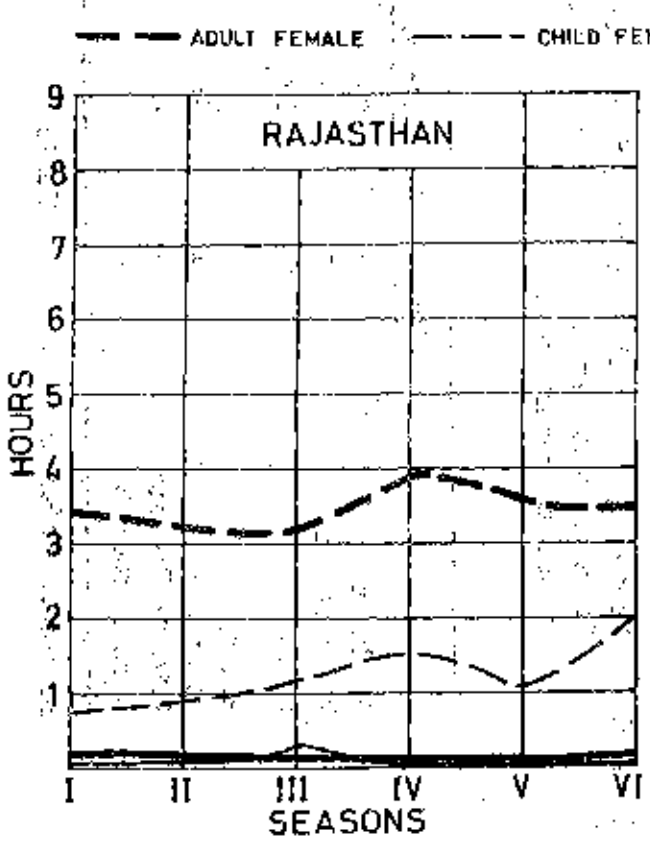
GAINFUL EMPLOYMENT



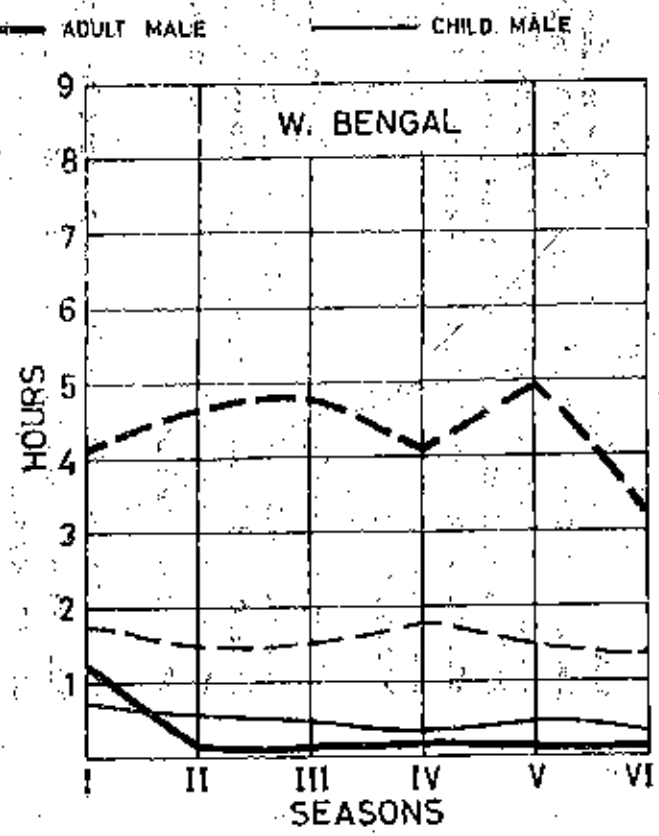
C-1 C-2

SEASONAL INTENSITY OF PARTICIPATION BY AGE/SEX AND ACTIVITY

HOUSEHOLD ACTIVITY



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 ≥ 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~~ but in West Bengal, however, Female ≥4hr work 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~~ duration 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 methology? 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~~ duration of work however the patterns are different. The landed females in the R sample show twice the ~~intensity~~ duration 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.

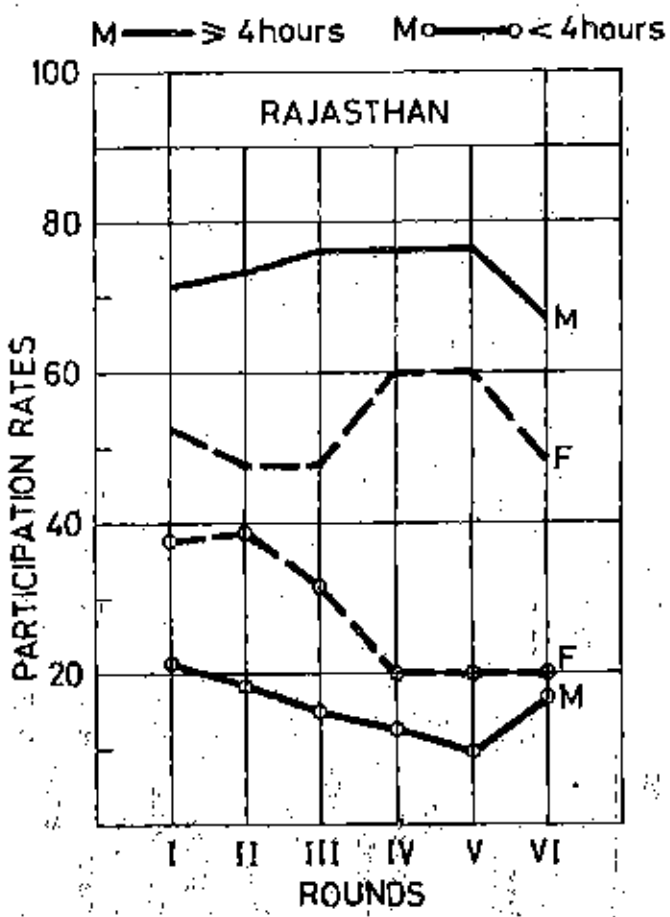
Table 4.2 Average Time disposition in hours per day of children and adults according to land-holding.

	Children (5-15)				Adults (15+)			
	Males		Females		Males		Females	
Rajasthan	LL	R	LL	R	LL	R	LL	R
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
West Bengal								
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

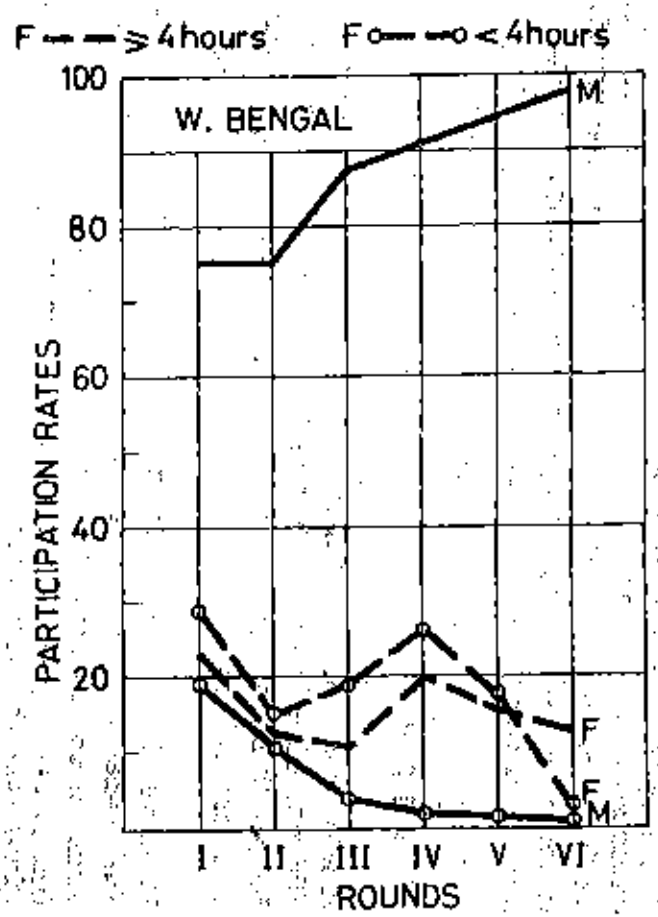
The Muluk profile of time disposition underlines the same point (Appendix III).

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

ACROSS SEASONS/ROUNDS

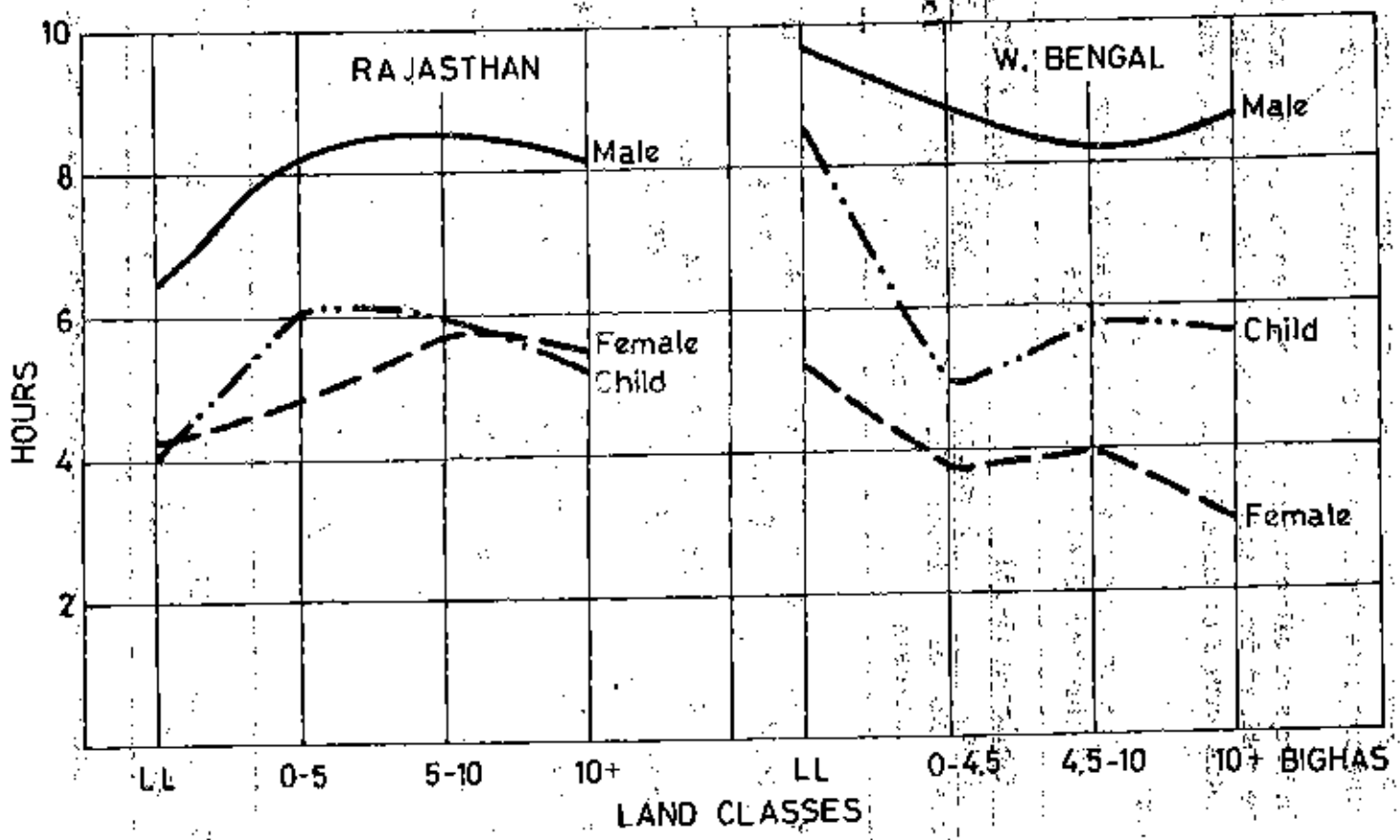


D-1



D-2

GRAPH-E : AGE SEX SPECIFIC INTENSITY (DURATION) 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	17 (51.5)	46	27 (58.6)	144	106 (73.6)	117	78 (66.6)
1	87	87 (42.5)	73	47 (64.3)	114	83 (72.8)	126	102 (80.9)
2	69	27 (39.1)	48	36 (75.0)	84	62 (73.8)	74	58 (78.3)
3	14	2 (14.2)	16	12 (75.0)	58	37 (63.7)	63	36 (57.1)
4	-		-		-		-	
5-9	-		-		-		-	
Total	203	83 (40.8)	183	122 (66.6)	400	288 (72.0)	380	274 (72.1)

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 (53.3)	121	45 (37.1)	265	174 (65.6)	272	123 (45.2)
1	136	66 (48.5)	99	15 (15.1)	186	109 (58.6)	210	91 (43.3)
2	46	18 (39.1)	49	16 (32.6)	53	50 (94.3)	88	31 (35.2)
3	6	5 (83.3)	6	0 (0)	25	18 (72.0)	39	12 (30.7)
4	-		-		-		-	
5-9	-		-		-		-	
Total	308	153 (49.7)	275	76 (27.6)	549	431 (78.5)	609	257 (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	
No. of children (0-4)	0-1	2-9	0-1	2-9	0-1	2-9	0-1	2-9
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	
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	0.62	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. Thismay 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 (31.8)	34	26 (76.4)	71	45 (63.4)	51	41 (80.4)
2 Non-Tribal	159	69 (43.3)	149	96 (60.4)	329	243 (73.8)	329	233 (71.8)
Total	203	83 (40.9)	183	122 (66.6)	400	288 (72.0)	380	274 (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 (53.0)	98	17 (17.3)	179	130 (72.6)	162	56 (34.5)
2 Muslim	208	100 (48.0)	177	59 (33.3)	370	301 (81.4)	447	201 (44.9)
Total	308	153 (49.5)	275	76 (27.6)	549	431 (78.5)	609	257 (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	4.55	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	113	0.31	0.19	3.48	4.33	0.85	0.23
Allied	3.46	203	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
HG&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 yieled 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 attendence 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 NSSO 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, <u>less rigorous time disposition modules</u> 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 wellas 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 Sieria - Economics deparment, 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 Sieria. 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 i 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 Monica - Victims of Old Fashioned Statistics : Institutions and Agrarian Reform Division, FAO, Roma. 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 Clearmont 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 occuring 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 ills 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 producting 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 Agricultrue, Dehradun, December 1980.

The paper was based on a survey of 65 tribal households spread over 8 villages in Betual 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 o.20np collecting fire-wood normally done for 10 hours a day to o.50 np for 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 tibal 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. Integreating 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		- Animal Husbandry Pig, Cattle, goats & Poultry 1	Maintenance of building Repairs 2	Production of goods for self-use. Mats/Ropes 3	4	Fetching water 5	Fetching fuel 6	Domestic chores, cooking, washing, child care 7	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. Oppong 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-anthropoligical 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 uniformally 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, housholds and localities, villages or small adminstrative 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 questionnairies 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.

Contents

Appendix I

Methodology

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: Adult M	Adult F	Children M	Children F	Total	Average monthly consumer expenditure (Rs.)	Per Capita monthly consumer expenditure (Rs.)	House hold m.l.a (code)	Total	Land: Home-stead	Cultivated	No.of adult workers M	F	If self employed in non-agriculture Household industry code	No.of persons engaged 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

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

Tehsil: _____
Village: _____

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

Land with househo

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			Willingn work(to asked on respond non-work
				Agri-culture	Non-agri culture	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 test 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 :20-26

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

Non-workers :40-47

i) Attending educational institutions	:40
-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

Institute of Social Studies

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	Education	Skill	Occupation	Dates of observation
1	2	3	4	5	6	7	8	9

Time Disppsition	Activity	Tools Used	Activity	Tools Used
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				

Appendix I

METHODOLOGY

1. 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 0.1 was canvassed[1] 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

Household - 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:

Not Hirers Out						0	Not Hirers In				
P 100	50 P	100	0 P	50	-50 P	0	-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 predominently not 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 'Not Hirers Out' (NHO) category were assigned a higher 'P' value as compared to the negative 'Not Hirers In' (NHI) households. The weights were assigned by $\frac{np}{np}$, 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 $\frac{nk}{nk}$, 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		Rajasthan census	
Rekha Roy	ISS	S.Almelu	ISS
Seema Adhikari	ISS	Malini Chand	ISS
A.N.Jha	NSSO	A.K.Chitra	NSSO
		S.L.Sharma	NSSO

Time Disposition:

Rekha Roy	Dec. - Dec.	S.Almelu	Dec. - Dec.
Seema Adhikari	" "	Aditi Ghosh	Feb.
Hossanara Begum	Jan. - May	Vijayalakshmi	Aug. - Oct.
Aarti Das	June - Dec.	Sushcela	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 8-9days in West Bengal 75 households.

In Rajasthan the investgators were:

- Malini Chand
- Malini Sekharan
- S. Almelu
- 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 Almelu 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 activies 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 woman 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 (1972-73)

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 those workers who fall 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.

	Census 0.0	Census 0.1
1. Demographic	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. Occupation	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 - other labour - self employed in agriculture - owner cultivator - tenant cultivator - self employed in non-agriculture - others	Agriculture: - poor peasant, hiring himself out: casual - attached bonded - poor middle peasant, neither hiring in or hiring out labour - Middle & big peasant, not hiring in labour - 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
Land holding 1) owned land	Extent of irrigation of cultivated land
2) Homestead land	Not irrigated
3) Cultivated land	25% irrigated
	50% irrigated
	Fully irrigated
Consumption expenditure	
1) Average monthly Consumption expenditure	Not canvassed

Definitions that were used in Note

'Agricultural household'	: A household in which all gainfully employed members are engaged in agriculture is defined as an agricultural household.
'Gainful employment'	: The usual status participation of any member of the household in NSS categories of 'farm' activities viz.worked in other farm as exchange labour, and worked in other farm for salary or wages, is regarded as gainful employment.
'Gainfully employed labour force'	: All persons of the age of 5 years and above engaged in gainful employment constitute the gainfully employed labour force.
'Labour Force'	: All persons of the age of 5 years and above in the population constitute the labour force.
'Work participation rate'	: The ratio of gainfully employed labour force to the labour force population is the work participation rate. This ratio may be regarded the rate of employment of the labour force population of age 5 years and above, derived from the definition of 'rate of employment' of the NSS 25th Round.
	: However, the NSS 25th Round definition includes all persons in the 'population'
'Female work participation rate'	: The ratio of gainfully employed female labour force to the female labour force population is defined as the female work participation, rate.
'Labour-land ratio of house hold'	The ratio of gainfully employed persons in the household is described as the labour land ratio.

<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

Quality of operated land	:60-63
Not irrigated	:60
25% irrigated	:61
50% irrigated	:62
Fully irrigated	:63

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 Time ended (hrs. min)	Total
1	2	3	4	5	6	7
Travelling and work	101					
Plucking Vegs.	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(feeding, milking, grazing cattle	121					
Tailoring	131					
Making shoes	141					
Carpentry	151					

Institute of Social Studies

Rural Household Study

Card Design I

Master Card

		Colums Allotted	Card Column
1	Card Design	1	1
2	Region Code	1 (1 or 2)	2
3	Household No.	2	3-4
4	Blank	2	5-6
5	No. of family members (total)	2	7-8
6	No. of children (5-14)	1	9
7	No. of children (0-4)	1	10
8	Land owned	3	11,12,13
9	Land operated	3	14,15,16
10	Type of household	1	17
11	(NH1 -1.NHO-2, Self-3 Non-agri.4, Agri+Non-Agri.5)		
11	Religion code (Hindu 1, Muslim 2)	1	18
12	Tribal/Non-Tribal (T1,Non T2)	1	19
13	Occupation of head of household	2	20-21
14	No. of workers age 15 and above Males	1	22
	Females	1	23
15	No. of workers 5-14 Males	1	24
	Females	1	25
16	Irrigated Land	2	26-27
17	Cattle (Yes 1, No. 2)	1	28
18	House (Yes 1, No. 2)	1	29
19	Tractor (Yes 1, No. 2)	1	30

Institute of Social Studies

Rural Household Study

May 1979

Card Design 2

Individual Slip

		Columns Allotted	Card Column	Decimal Places
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	

		Columns Allotted	Card Column	Decimal Places
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 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			

		Columns Allotted	Card Column	Decimal Plates
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	
	Worship			
	Chatting	2		
	Toilet			
	Sleeping			
	Recreation			
	Idleness			
	Eating			
	Resting			

APPENDIX II

Background Information

Appendix II

Background Information

The Districts

District Birbhum

Geography

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 eqqal 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 4.07% 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 inhaibited 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 a 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.

Selarpur 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, Rajasthan

Etrampura

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 practice 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 occassionally 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

State	Population Male	Population Female	(A) Agricultural Households	(B) Non-agricultural Households	(C) Agricultural-cum-Non-Agricultural Households	Sample Size A	Sample Size B	Sample Size C
Rajasthan								
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)
West Bengal								
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)
Solarpur	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)	The villages	The sample households
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)
	345	52

Table A-3 Distribution of households across asset holding-sample households/village

West Bengal

Land (in acres)	The Villages	Sample households
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)	
	524	75

Table A-4 The number of households in each village

Rajasthan		West Bengal	
Name of Village	No. of households	Name of Village	No. of households
Etrampura	57	Thabgaon	110
Mehtoli	133	Selarpur	183
Chantoli	155	Kuita	231
	345		524

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

Age	Etrampura		Mehtoli		Chentoli		Total	
	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)
	166 (100.0)	135 (100.0)	416 (100.0)	287 (100.0)	446 (100.0)	340 (100.0)	1028 (100.0)	762 (100.0)

(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)

Age	Thabgaon		Selarpur		Kuita		Total	
	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)	69 (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

Rajasthan	Females per 1000 males	West Bengal	Females per 1000 males
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

	1971 Census				CHH, ISS 1976			
	Population	Male	Female	Female per 1000 Males	Population	Male	Female	Female per 1000 males
Etrampura	266	146	120	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

	1971 Census				CHH, ISS 1976			
	Population	Male	Female	Female per 1000 males	Population	Male	Female	Female per 1000 males
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

Age Group	Census 1971 (Rajasthan)			CHH, ISS 1976 (3 Selected Villages)		
	Male	Female	Female per 1000 males	Male	Female	Female per 1000 males
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
Total	59,611	54,497	917	379	259	683

(b) West Bengal

Age Group	Census 1971 (West Bengal)			CHH, ISS 1976 (3 Selected Villages)		
	Male	Female	Female per 1000 males	Males	Female	Female Per 1000 males
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
Total	97,485	94,628	970	489	535	1,094

Table A-10

Households classified according to Family Size

(a) Rajasthan

Family Size	Etrampura	Mehtoli	Chentoli	Total
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)
Total	57 (100.0)	133 (100.0)	155 (100.0)	345(100.0)
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

Family Size	Thabgaon	Selarpur	Kuita	Total
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)
Total	110 (100.0)	183 (100.0)	231 (100.0)	524 (100.0)
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

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

(b) West Bengal

Religion	Thabgaon	Selarpur	Kuita	Total
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)
Total	110 (100.0)	183 (100.0)	231 (100.0)	524 (100.0)

Note: Figures in bracket indicate percentages.

Table A-13

Distribution of Households According to Landholding

(a) Rajasthan

Land (In Bighas)	Etrampura	Mehtoli	Chentoli	Total
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)
Total	57 (100.0)	133 (100.0)	155 (100.0)	345 (100.0)

Note: Figures in brackets indicate percentages.

Table A-14

Households Classified According to Landholding

(b) West Bengal

Land (In Acres)	Thabgaon	Selarpur	Kuita	Total
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)
6 - 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 (0.2)
Total	110 (100.0)	183 (100.0)	231 (100.0)	524 (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

Occupation	Name of Village	Census 1961 Male	Census 1961 Female	Census 1971 Male	Census 1971 Female	CHH, ISS 1976 Male	CHH, ISS 1976 Female
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

Occupation	Name of Village	Census 1961 Male	Census 1961 Female	Census 1971 Male	Census 1971 Female	ISS Census Male	ISS Census Female
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

Agriculture	Etrampura	Mehtoli	Chentoli	Total
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 supervisies work on farm	-	4	-	4
Total	51 (89.5)	114 (85.7)	109 (70.3)	274 (79.4)
Non-Agriculture				
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
Total	3 (5.3)	13 (9.8)	15 (9.7)	31 (9.0)

Table A-18

	Etrampura	Mehtoli	Chentoli	Total
Agricultural-cum-non-Agriculture				
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
Total	3 (5.3)	6 (4.5)	31 (20.0)	40 (11.6)
Grand Total	57	133	155	345

Note: Figures in brackets indicate percentages.

Table A-19

Households Classified According to Occupation 1976, CHH, ISS

(b) West Bengal

Agriculture	Thabgaon	Selarpur	Kuita	Total
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)
Sub-total	78 (70.9)	117 (63.9)	121 (52.4)	316 (60.3)

Table A-20

	Thabgaon	Selarpur	Kuita	Total
Non-Agriculture				
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)
Sub-total	11 (10.0)	26 (14.2)	56 (24.3)	93 (17.7)
Agriculture-cum-non-agriculture				
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

	Thabgaon	Selarpur	Kuita	Total
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 + house holl 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
Sub-total	17 (15.5)	34 (18.6)	35 (15.2)	86 (16.4)
Non-worker households	4 (3.6)	6 (3.2)	19 (8.2)	29 (5.5)
Grand Total	110	183	231	524

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)

Operated Land (In Bighas)	Work Participation Rates		
	Males 1	Females 2	General 3
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
Overall	62.7	52.4	55.8

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)

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	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
Overall	63.5	3.2	33.4

Work participation by 'hiring' status of households

The production relations canvassed in the household census 0.1 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)

Household category	No. of Household	Work participation Rates Males	Females	Children
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)

Household category	No.of Household	Work Participation Rates Males	Females	Children
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 cultivator 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)

Operated Land (In Bighas)	No. of Agricultural Households	Household reporting at least one member in agricultural labour	
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)
Total	284	92	(32.4%)

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)

Operated Land (In Acres)	No. of Agricultural Households	Households reporting at least one member in agricultural labour	
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	
Total	302	158	(52.31%)

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

Age Group	Rajasthan			West Bengal		
	Persons	Males	Females	Persons	Males	Females
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)
Total	276 (100.0)	147 (100.0)	129 (100.0)	331 (100.0)	170 (100.0)	161 (100.0)

Note: Figures in bracket indicate percentages.

Table B -2

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

	Rajasthan				West Bengal			
Age Group	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

Family Size	Rajasthan			West Bengal		
	Persons	Males	Females	Persons	Males	Females
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)
Total	276 (100.0)	147 (100.0)	129 (100.0)	331 (100.0)	170 (100.0)	161 (100.0)

Note: Figures in bracket indicate percentages.

Table B -4

Sample Population Classified by Ethnicity and Religion

Ethnicity

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

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

Note: Figures in bracket indicate percentages.

Table B - 5

Sample Population Classified According to Land Ownership

Rajasthan				West Bengal			
Land in Bighas	Persons	Males	Females	Land in Acres	Persons	Males	Females
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)				
Total	276 (100.0)	147 (100.0)	129 (100.0)	Total	331 (100.0)	170 (100.0)	161 (100.0)

Note: Figures in bracket indicate percentages.

Table B -6

Sample Population Classified According to Type of Households

	Rajasthan			West Bengal		
	Persons	Males	Females	Persons	Males	Females
AO 1.02	96 (34.8)	54 (36.7)	42 (32.6)	110 (33.2)	56 (32.9)	54 (33.6)
AO 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)
Total	276 (100.0)	147 (100.0)	129 (100.0)	331 (100.0)	170 (100.0)	161 (100.0)

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

Items	Market price	Village price
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 winter)
Ghee	Rs. 25/- "	Rs.23/- per kg (in winter)
	Rs. 26/- "	Rs.24/- or Rs. 25/- per kg (in summer)

Table C -2

Assets of selected households

Name of Head of Households	Particulars		
	Utensils (In Rs.)	Furniture (In Rs.)	Bicycle (No.)
MAHTOLI (Rajasthan)			
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	-

TABLE C -3

WAGE RATES IN VILLAGES 1977

Particulars	Mahtoli	Chaintoli	Entrampura
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/-
3.4.82			
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

APPENDIX III

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 femals (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 14t 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 House-hold	Occupation of head of household	Size of house-hold. M	F	C	Owner-ship of land.	Owner-ship of live-stock.	Own ship plou
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			II			III			IV		
MULUK VILLAGE, BIRBHUM DISTRICT Data from 1971 Census			Data from 5 selected households, July-Sept., 76			3 Selected villages * Time allocation Study** Birbhum Dist. Data from NSS 32nd Round Schedules Canvassed by ISS Investigators in sample households Nov, 1977			Data from Time Allocation Study Phase I June-July, 1977		
Total Population	No. of workers	Percentage of workers	Total in sample	No. of workers	Percentage of workers	Total in sample	No. of workers	Percentage of workers	Total in sample	No. of workers	Percentage of workers.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10	11.	12.
1452 Males	337	23.2	39	14	35.9	317	107	33.8	293	163	55.9
762 Females	329	43.2	10	9	90.0	116	95	81.9	98	90	91.8
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 :

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 enagage 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 Mulak 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 allocatinnal 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 Meajhan 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.

CODES

PERSONAL

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

	SHANTI	PHATUNA
Relationship to head of household	: Wife	: Daughter
Education	: Illiterate	: Illiterate
Occupationa	: 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

	PAKU	SUNDARI	TALAKURI
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

	USHA	RENUKA	ANNA
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

	SATYAVATI	BANUSREE	TRIPTI
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

		Tarulata	Durgabala
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

APPENDIX IV

Appendix IV

Bibliography

1 Papers presented at the Symposium on Concepts and Measurements of Rural Unemployment: Theoretical Issues and Emperical Findings, sponsored by Indian Council of Social Science Research, Indian Economic Association and the Centre for Development Studies, Trivandrum, July, 1976.

- Parthasarathy G	Problems Related to Concepts and Measurement of Rural Unemployment in the Indian Context to-day.
- Krishna Bhardwaj	On "Measures of Unemployment" A Comment.
- Parthasarathy P	Labour Time Disposition Data and Measurement of Unemployment, Illustration and some Issues from NSS and Other Enquiries
- Kurien C.T.	A Comparison of Employment and Earnings of the Weaker Sections in Tamil Nadu and Punjab.
- Pranab Bardhan	On the Reasonableness of PDUR as a Measure of Rural Unemployment. A Summary Statement.
- Rao S.K.	On Some Aspects of the Concept and Measurement of Unemployment.
- Visaria P	A Note on the Conceptual Framework for the Analysis of Rural Employment and Unemployment.
- Abraham T.P. & Bhattacharya Sadhu	Some Comments on the Paper Entitled 'Rural Unemployment: A Survey of Concepts and Estimates for India by Professor Rajkrishna.
- Dantwala M.C.	Some Issues in the Discussion of Concepts and Measurement of Unemployment.
- Jain Devaki	A Symposium on Unemployment in Trivandrum-A Feminist View.

- Raj Krishna	Rural Unemployment A Survey of Concepts and Estimates for India
- Rath N	Counting Unemployed Days - A Sceptical Note
- Mothari U.N.	Self Employment, Disguised Unemployment and Surplus Labour
- Raj Krishna & Pranab Bardhan	Concrete Suggestion for NSS and Thirty Second Round Survey on Employment and Unemployment.
- Raj K.N.	Trends in Rural Unemployment in India. An Analysis with Reference to Conceptual and Measurement Problems.
-	Synposium on the Concept and Measurement of Rural Unemployment- A Summary Statement.

2 Papers presented at the Asian Regional Workshop on the Role of Women in Contribution to Family Income, Bangkok, July 1976.

- Dr. Ambhorn Messok	Women Participation in Family Income.
- Perez B.A.	Women Labour Force - Participation and Income in Three South Asian Countries.
- Miss Tang, Yong Moy and Mrs. Uraivan Tan Tan Kim Yong	The Position of Women and Their Contribution Rural Productive Efforts. A Comparison of Two Case Studies in Thailand and Malaysia
- Dong Kyu Choi and Dai Young Kim	Women's Contribution to Income and Structure of Women's Employment in Korea.
- Choi Dong Kyu	Government Programmes and Policies Regarding Female Workers in the Republic of Korea
- Cheng Sick Hwa	The Economic Characteristics of Women in Singapore.

- Lawrence C Chau	Womanpower Mobilisation and Hong Kong's Industrialisation
- Ms. Herminia M. Briones	Role of Women in Contributing to Family Income.
- Dr. Estella L. Zamora	A Proposal for a Plan of Action
- Dr. Estella L. Zamora	Women and the Working Environment
- Dr. Leda L. Layo Phd.	Correlates of Female Income
- Chan Ah Noot	Malaysian Trade Union Congress Women's Section
- Yeong Yin Cheng	Income and Labour Market Participation of Women in Malaysia
- A.M.A.H. Siddiqui	Women's Participation in Employment in Bangladesh
- Rajmata Benita Roy	Women in Bangladesh
- Mrs. P. Ramachandran	Employment of Women in India
- Mrs. P. Ramachandran	Employment of Women in India
- Emiko Hinguchi	Women Workers in Japan
- Mrs. Vichandra Bunnag	The Role of Women in Contributing to Family Income
- Miss Satsaya Choanggulia	The Role of Rural Women in Contributing to Family Income
- Mrs. Ruth Pfanner	Note on Activities Undertaken by ESCAP in Connection with International Women's Year
- Dr. Gertrud Schanne Raab	Note on the Activities in the Region with Regard to Women's Contribution to Family Income.
- Tengku Maziedah Khaulah Ahmed	FAO's Efforts Towards Helping Women in the Rural Areas Play an Active Part in Contributing to and Increasing their Family Income.

- Mrs. Dra Angustian Seksono	The Role of Women in Contributing to Family Income in Indonesia
- Mr. C.T. Mangahas and Teresa Jayme-ho	The Economic Status of Women an Analytical Framework.

3 Papers presented at OECD Conference on Employment of Women, Paris, April 1980.

- The Growing Role of Women in the Labour Force, Economic and Social Implications.
- Statement by Secretary General of the OECD High Level Conference on the Employment of Women.
- Segregation and the functioning of Labour Markets (Note by the Secretary General).
- Women in the Labour Market: Analytical Report (Note by the Secretadiat).
- Communique (Note by the Secretary General)
- The Business and Industry Advisory Committee Comment for the OECD High Level Conference on the Employment of Women (Note by the Secretary General).
- Views of the Trade Union Advisory Committee to OECD (TUAC) (Note by the Secretary General).

4 Papers presented at the Seminar on Women in the Indian Labour Force, Trivandrum, July 1980.

- Seal K.C.	Women in the Labour Force in India-A Macro Level Statistical Profile.
- Mukhopadhyaya S	Women Workers of India - A Case of Segmentation.
- Parthasarathy G, Rac R	Women in the Labour Force in India.

5 Institute of Social Studies Trust Questionnaires devised for ISST Socio-Economic Surveys.

6 World Employment Programme Research : Three Working Papers:

- Anker, Richard	Demographic Changes and the Role of Women: A Research Programme in Developing Countries.
- Oppong, Christine	A symposium of Seven Roles and Status of Women.

7 Women and Agriculture

- Deere, Carmen Diana	The Agricultural Division of Labour by Sex: Myths, Facts and Contradiction in Northern Peruvian Siera (1979)
- Marriot Mokim	Is Village Life Changing?
	Social Structure and Change in U.P. Village
- Heyer, Judith	Attemption to reach the rural poor? The Small Farmer Development Agency in Kanur Village, Coimbatore (1981).
- Thamarajakshi R	Women in Indian Agriculture
- Mencher Joan P and Debroah D'Amico	Women and Rice Cultivation in India
- Mencher Joan P	The Lessons and Non-Lessons of Kerala Agricultural Labourers and Poverty (EPW, Spl. No. 1980).
- Gulati Leela	Profile of a Female Agricultural Labour, (EPW, March 1978)
- Lahiri R.K.	Inter-State and Seasonal Variations in Women Agricultural Labourers Work Participation (ISI Seminar, Calcutta 1975).

- Saradamoni K	Women's Status in Changing Agrarian Relations: A Kerala Experience (EPW, January 1982)
- Chambers R, and Lenton R	Note on Irrigation and Women (1981)
- Dandekar V.M.	Integration of Women in Economic Development, Paper presented at ESCAP Conference, December 1981

8 Female Employment in India - Characteristics and Occupational Distribution.

- Bardhan, Pranab	Some Employment and Unemployment Characteristics of Rural Women: An Analysis of NSS Data for West Bengal, 1972-73 (EPW, March (1978)
- Gulati, Leela	Occupational Distribution of Working Women: An Inter-State Comparison (EPW, October 1975)
- Sunder, Pushpa	Characteristics of Female Employment: Implications of Research and Policy", EPW, May 1981.
- Mitra, Ashok	Note for Members of the Working Group on Employment of Women at the Planning Commission
- Ahuja, Kanta	Women and Employment (Paper presented at Seminar on Adult Education, Rajasthan University, October 1973).
-	Socio-Economic Survey of Women Workers Employed in Hand Rolled Bidi Trade (SEWA).
- Kalpagam U, and Usha P	Female Work Force in Tamil Nadu

9 Measuring Women's Economic Activity: Three Studies by Ester Boserup, ILO and UN.

- Boserup, Ester	Employment of Women in Developing Countries.

- United Nations Secretariat	Sex-based Stereotypes, Sex Biases and National Data Systems (1980)
- ILO	Guidelines for Preparing Country Report on Income-Generating Skills for Women in Asia

10 Women and Work - Some Pertinent Issue:

- Mukhopadhyaya, Swapna	Work and Women: Some Pertinent Issues
- Krishnaraj, Maitreyi and Patel Vibhuti	Women's Liberation and the Political Economy of Housework (Paper presented at National Conference on Women's Studies, Bombay, 1981).
- Kim-Sooken	Cross-Substitution Between Husband and Wife as one of the Factors Determining Married Women's Labour Supply.
- Joshi, Heather	Prospects and Care for Employment of Women in Indian Cities (EPW, August, 1976).
-	The Informal Urban Economy and its Boundaries (Paper presented at Fourth World Conference of the International Industrial Relations Association, Geneva, Sept. 1976).
- Raj K.N.	Unemployment and Structural Changes in Indian Rural Society (Presidential Address, All India Labour Economy Conference, Patiala 1976).
- Mayoux Linda	Women and Work in Rural India.

11 Changing Agrarian Relations in India

- Gough, Kathleen	Changing Agrarian Relations in Thanjavur, 1962-72.
- Bhalla, Sheila	Changing Agrarian Relations in Haryana, 1962-72.

12 Policies for Employment Generation for Women.

- Sharma, Kumud	Policies for Employment Generation Impact on Women: India
-	Vocational Training Programme for Women (GOI Project, 1976)

13 Papers presented at Seminar on "Participation of Women in Development, Cambridge, March 1974.

Papers presented at Seminar on "Participation of Women in Development, Cambridge, March 1974.

- Morris, Stephen	Women in Rural Industry
- Howthron, G.P.	The Status of Women and Other Social Determinants of Fertility.
- Palmer, Ingrid	Women and Technology in Agriculture;
- ILO	Women Workers in the Third World and the ILO Contribution.

14 The Working Child : A Guide to the Literature for UNICEF (ISST, Sept. 1981)

15 Women and Nutrition - Sex-bias in Family Welfare and Energy Use.

- Sen, Amartya	Family and Food : Sex-bias in Poverty in South Asia)
- Batliwala, Srilatha	Rural Energy Scarcity and Nutrition-A New Perspective (EPW,1981).

16 Women's Status and Women's Labour in the Third World: 8 Case Studies of Indonesia & Bangladesh.

- Goldschmidt, Clermont, Luisella	Unpaid Work in the Household: A Review of Economic Evaluation Methods, ILO, Geneva
- Papanek, Hana et al	Changes in the Status of Women and their Significance in the Process of Social Change : Indonesian Case Studies.

- Hart, Gillian — Patterns of Household Allocation in a Javanese Village (Paper Prepared for Workshop in Household Studies, Singapore, 1976).
- Steler, Ann — Some Economic Deteriments of Female Autonomy in Rural Java (Paper presented at ICRISAT Workshop, Hyderabad, 1976).
- Steler, Ann — Land Labour and Female Autonomy in a Javanese Village
- Chen, Marty and Ghuznavi, Ruby — Women in Food-for-Work: The Bangladesh Experience, Dacca, 1977
- Chen, Marty — A Structural Analysis of Women's Work in Rural Bangladesh (MII, 1981)
- UNICEF — Feasibility Survey on Productive/ Income Generating Activities for Women in Bangladesh, Dacca, 1977
- Mathai, Julie A — Women's Work in the Family Economy in the USA.
- Birdsall Nancy and McGreevey, William P — The Second Sex in the Third World: Is Female Poverty a Development Issue, Washington, 1978.

19 Integration of Women in Economic Development: Experience of Indonesia, Turkey, China, Srilanka, Sudan and India.

- Sadhi, S — Mechanisms for Promoting Integration of Women in Development in Indonesia, ESCAP.
- Kudat, A — Role of Women in Industrilisation: The Turkish Case, UNIDO, 1978.
- Ramachandran, Padma — Women and Development : The Chinese Experience, 1979.
- Mazumdar, Vina — Women, Development and Public Policy
- Ramachandran Padma — The Position of Women in Srilanka 1974.

- Hafeez, Mohammad el Hassan — Women and Development in Rural Regions, Dept. of Social Welfare, Ministry of Youth and Social Welfare, Khartoun, Sudan.

- Dandekar V.M. — Integration of Women in Economic Development (Paper presented for United Nations Asian and Pacific Development Centre Conference, Kaula Lumpur, December, 1981.

20 Women and Socio-Economic Charge

- Critique of Anthropology, Women's Issue, 1977.

- ILO — A Research Note on Technology and Rural Women, Geneva, 1978.

- Castillo, Gelia T — The Changing Role of Women in Rural Societies (1976).

- Buchwald Ulrike Von and Palmer Ingrid — Minitoring Changes in the Conditions of Women-A Critical Review of Possible Approaches, (UNRISD, Geneva, 1978).

- Nag, Moni — Indepth Village Studies on Reproductive Behaviour, 1977.

21 Household Surveys: Problems and Perspectives, ESCAP Seminar Papers, 15-26 Sept., Bangkok, 1980.

22 Indian Institute of Management, Bangalore, Occasional Papers.

- Ramaswamy N.S. — The Planning Development and Management of Animal Energy Resources in India, October 1978.

- — Reducing Animal Power Wastages and Mitigating Cruelty to Work Animals, Nov. 1977.

23 Symposium of Head of Agencies Dealing with Women Workers' Problems, ILO, Brussels, 1977.

22 Women's Work and Leisure in Time Budget Studies:

- Szalai, Alexander — The Situation of Women in the Light of Contemporary Time-Budget Research.

  (Conference Background Paper: World Conference of the Integrational Women's Year, 1975).

- Gronau, Reuben — Leisure, Home Production and Work- The Theory of the Allocation of Time Revisited. (Working Paper No. 137 NBER, Standford, May 1976).

25 Six Working Papers : World Congress of Women - Equity, National Independence, Peace, Prague, 8-13, Oct. 1981).

26 Report on Women's Occupations in India, March-May, 1975. SIDA, 1975.

27 Income and Labour Force Participation Rates of Women in Philippines, University of the Philippines, 1976.

28 Women's Work: Methodological Issues and Implications.

- Jain Devaki — Report on Study Seminar 59, Jan. 10 - Feb. 11, 1977, IDS University of Sussex.

- Jain, Devaki and Chand Malini — Patterns of Female Work - Implications for Statistical Design, Economic Classification and Social Priorities (Paper prepared for National Conference on Women's Studies, Bombay, April 20-24, 1981).

- Jain Devaki and Singh Nalini & Chand Malini — Women's Work: Methodological Issues. (Paper prepared for Conference on Women in Development-South East and South Asia, Dacca, March 28-April 1, 1977).

29 Visaria, Pravin — Poverty and Living Standards in Asia. (Population and Development Review, June 1980).

30 D'Souza Stan, Chen Lincoln C — Sex Differentials in Mortality in Rural Bangladesh. (Population and Development Review, June 1980).

31 Chen, Lincoln C et al — Sex Bias in the Family Allocation of Food and Health Care in Rural Bangladesh. (Population and Development Review, March 1981).

32 Interim Report on Statistics on Women's Participation in Agriculture Production (United Nation's Fund for Population Activities Project GLO/77/951, 1st July 1978, June 30, 1980.

33 Matsukawa, Shigeo — Problems in Women's Employment in Japan, Tokyo, 1979.

34 Joshi P.C. — Agrarian Social Structure and Social Charge

35 ISEC Staff Seminar Papers on Block Level Planning and Employment, Bangalore, 1979-80.

36 Block Level Plan for Jawhar District, Thane, Maharashtra for Maharashtra State Employment Guarantee Council, Government of Maharashtra, June, 1981.

37 Household Surveys in Asia - Organisation Methods, ESCAP, Bangkok, 1981.

38 Rural Labour Enquiry, 1974-75 : Summary Report

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

40 National Industrial Classification, 1970, CSO.

41 Cain Mead et al — Class Patriarchy and the Structure of Women's Work. (Paper prepared for ADC-ICRISAT Conference, Hyderabad, 1979.

42 Jain Devaki — Women's Employment - Possibilities of Relevant Research. Paper prepared for KULU and Dev. Seminar, Copenhagen, July'80.

43 Ahmed Iftikhar — Technological Change and the Condition of Rural Women: A Preliminary Assessment, ILO, Geneva, October 1978.

44 Miss Maria — Towards a Methodology of Women's Studies, The Hague, 1979.

45 Mies Maria — The Social Origins of the Sexual Division of Labour.

46 IDS Bulletin, July 1981 — Women and the Informal Sector

47 Vocational Tradning Programme for Women in Rural Areas, ILO/SIDA Project, U.P. - IAMR, New Delhi, 1981.

48 First Meeting of the National Committee on Women: Agenda and Notes, New Delhi, April 1978.

49 Labour Market Behaviour in Rural Villages of South India: Effects of Season, Sex and Socio-Economic Status, ICRISAT, August, 1980.

50 Varadappan, Sarojini — The Participation of Women in Political, Economic and Social Development: India. (Paper presented at UN Seminar, Kathmandu, February, 1977).

51 Reddy, N.D. — Female Work Participation in India: Facts, Problems and Policies. Indian Journal of Industrial Relations, October 1979.

52 Heyzer, Noaleen — Women, Subsistence and the Informal Sector: Towards a Framework of Analysis. IDS Discussion Paper, August 1981.

53 Rahman, Islam Rahman — New Technology in Bangladesh Agriculture: Adoption and Its Impact on Rural Labour Market. ARTEP, Bangkok.

54 World Bank — A Multi Purpose Household Questionnaire: Basic Economic and Demographic Modules.

55 Kohen, Andhrew I — Women and the Economy: A Bibliography and a Review of the Literature on Sex Differentiation in the Labour Market, Ohio State University, July 1977.

56 National Classifications Occupations (Revised Ed. 1968)

57 Khan, Azizur Rehman et al Employment, Income and the Mobilisation of Local Resources: A study of two Bangladesh Villages, ARTEP, Bangkok, 1981.

58 Working Papers on World Employment Programme Research, ILO, Geneva.

59 Women at Work, ILO, Geneva, 1978.

60 West Asian Women's Seminar. (Textile Worker's Asian Regional Organisation, March 1980).

61 Women's Work : A Collection of Articles by Working Women, Vancouver, 1976.

62 Women as Partners in Progress. (Key Note Address, Self Employed Women's Association Conference; February 1979).

63 Buch A.N. and Bhatt Ela The Economic Status of Women Firewood Pickers from Mount Girnar (Gujarat, India).

64 Wong, Aline K Economic Development and Women's Peace: Employment, Health Education: Suggested Priorities for Action, ICSSR.

65 Women Power: The World's Public Labour Force in 1975 and the Outlook for 2000, ILO, Geneva, 1975.

66 Women in the Labour Force in Latin America, Rio de Janeiro, Nov. 1978.

67 Bhatt, Ela Profiles of Self-Employed Women, Ahmedabad, 1976.

68 Women in Construction, ICSSR, 1974.

69 National Consultation on Domestic Workers, Indian Social Institute, New Delhi, 1981.

70 A Socio-Economic Survey of Domestic Servants in Tirupattur Municipality: A Research Report, Bombay 1980.

71 Report on National Seminar on Employment Expansion in Indian Agriculture, ARTEP, ILO, Bangkok, February, 1979.

72 Study on Employment of Women in Selected Industries, Labour Bureau, Ministry of Labour, Government of India 1977.

73 Bhatt, Ela — Socio-Economic Survey of Chippa Women.

74 National Plan for Women - Employment (Institute of Applied Manpower Research, New Delhi.

75 National Colloquim on Employment Strategy and Investment Pattern in the 6th Five Year Plan, New Delhi, 1981.

76 Proceedings of Special Conference on Rural Unorganised Labour, Ministry of Labour, Govt. of India, 1978.

77. Income Generating Skills for Women: An Interim Report, National Advisory Council on the Integration of Women In Development, Kaula Lumpur, 1978.

78 Papers presented at Seminar on Special Needs of Women in France, Employment Education, Pune, 1-5 Jan. 1981.

79. Papers presented at Seminar on Employment Generation, Research, Alternate Strategies and Interventions, National Labour Institute, New Delhi, 1980.

80 Mohyneux Maxine D — Women's Emancipation Under Socialism: A Model for the Third World. (IDS Discussion Paper, August 1981).

81 Baster, Nancy — The Measurement of Women's Participation in Development: The Use of Census Data (IDS Discussion Paper, Sussex University, 1981).

82 Papanek, H, and Jahan Rounaq — Women Work-Methodological Issues, Dacca, 1979.

83 Wanda, Minge-Klevana — Does Labour Time Decrease with Industrialisation? A Survey of Time Allocation Studies" (Current Anthropology, June, 1980).

84 Jain, Devaki and Banerjee, Jayanti — Technology Planning for Promoting Women's Employment" (Paper presented at Workshop on Science and Technology for Women, IIT, New Delhi).

NSS REPORTS AND DOCUMENTS

(Available with ISST Library)

1 NSS 27th Round (October 72 - September 73)
Instructions to Field Staff, Vol. I and II.

2 NSS Report 278/1 Survey of Self-Employed Households in Non-Agricultural Enterprises, 1977.

3 NSS Report 278/3 - do -

4 NSS 32nd Round (July 1977 - June 1978)

5 NSSO Socio-Economic Surveys (NSS 32nd Round)
Instructions to Field Staff Vol. I.

6 NSS 29th Round (July 1974 - June 1971)

7 NSS 25th Round (July 1970 - June 1971)

Time Disposition and Wage Rate for Economically Weaker Section of the Rural Population of India.

8 NSS 27th Round (October 1972 - September 1973)

9 NSS 35th Round (July 1980 - June 1981)
Instruction to Field Staff : Vol. II

10 NSS 25th Round (July - June 1971)
Tables with notes on the Dimensions of the Economic problems of weaker Sections of Rural Population.

11-14 Sarvekshena - i) July 1977
ii) July 1979
iii) October 1979
iv) April 1980

15 NSS 32nd Round (1977-1978)

Women's Activity in Rural India: A Study based on NSS 32nd Round Survey Results (Part I - Study Report).

16 Some Key Results from the Survey of Employment and Unemployment (July 1977 - June 1978) and Note on Key Results by Prof. V.M. Dandekar.

17 NSS Report 255-A

Employment-Unemployment Profile for India (27th Round) March 1976.

18 NSSO document GC 282: Schedules for the Survey on Social Consumption and pilot survey on construction activity during the 35th Round.

Technical Seminar on
WOMEN'S WORK AND EMPLOYMENT
9-11 April 1982

THE NATURE OF HOUSEHOLD WORK

Swapna Mukhopadhyay*

* Institute of Economic Growth, University Enclave, Delhi 110 007

INTRODUCTION

Goods and services that produce 'utility' fall within the natural domain of economic enquiry. Classical economists like Adam Smith made a distinction between the use-value and exchange-value of goods and services and economists restricted their domain to the latter class of items since they argued that the former category of commodities do not have markets and hence are not easily amenable to analysis by the usual tools of the economic science. (1)

What surprisingly has escaped generations of economists is the problem of evaluating a category of services which is about as free and prevalent as God's free air, but which nonetheless has the potential of generating exchange-value. I have in mind the universally prevalent system of unpaid labour - mostly household labour performed mainly by women all over the world to a greater or less extent, which produces essential services for private consumption, strictly outside the ambit of the social production system. It is qualitatively different from 'public goods' due to its exclusive private nature and from commodities with only use-value due to its potential marketability (2). In fact every single items of housework (barring the physiological act of child-bearing by women), like child-rearing, cooking, cleaning, mending and running the household in general can be, and has been, done by hired personnel under some socio-cultural conditions or the other.

It may seem to be a bit surprising, therefore, that to date there has been no serious and concerted attempt to evaluate the contribution of this very essential class of services to the general well-being of the population. Generations of economics students have been fed puzzles like what happens to national income when a man marries the cook, but this and similar questions have remained as brain-teasers in national income accounting rather than pose more substantive issues (3).

There is of course no denying the fact that imputing values of household work where there are no markets, or substantially segmented markets, poses very serious analytical and methodological problems.

This may be one of the main reasons why it has not been seriously attempted so far. But then one could argue that a whole lot of other problems which have accounted for a spate of research activity in theoretical and empirical economics in recent years have similar methodological problems. Consider, for instance, the burgeoning literature on public goods, on externalities and on a somewhat more mundane plane, on the whole area of evaluation of social benefits and costs, for instance (4). The analytical problems intrinsic to these issues have propelled closer scrutiny of these matters rather than induce oblivion or disowning of these by the economics research community. Perhaps, one feels, that the reasons for this neglect where women's work is concerned could be largely sociological, as a large number of Marxist-Feminist writers believe them to be.

THE MARXIST-FEMINIST STAND

Engels was the first to suggest that the total male domination of women, along with the relegation of all household duties to women, can be traced to the origin of private property in the history of human civilisation. The emergence of private property rights in the males of the household brought into focus the question of inheritance of property by the progeny, and this could be done only by the abrogation of the mother right prevalent in early societies. For Engels this marked the beginning of male subjugation of women and delegation of women wholly to the domestic sphere. Thus, performing household chores by women emerges as a necessary concomitant of the growth of capitalism (5).

There have been a number of studies by sociologists and social anthropogists in recent years which suggest that the 'status of women' in different cultural situations tends to go down with the growth of commercialism and colonialism (6). In particular it has been suggested that in class-based societies, the separation of the family and the society is carried to an extreme length. Women's work is relegated wholly into the private domain and thereby it ceases to be visible. It is easy to forget something that is not observed, and assume it does not exist. Many have thus felt the need for removing the dichotomy between the public and the private domains (7). At the same time there have been a number of studies which present evidence to the effect that male domination of women had existed in some pre-capitalistic, primitive societies as well, so that as a phenomenon of social life, it predates

the advent of capitalism (8). While the debate continues, perhaps few will find fault with the position that the nature of household work will be conditioned by the social mode of production within which it is embedded.

THE NON-MARXIST FEMINIST STAND

A substantial segment of the feminist movement in Western societies which emerged as a major social force in the early seventies had however grown outside the ambit of the Marxist stream of thought. A class of economists of non-Marxist persuasion have attempted to understand and analyse the phenomenon of increasing subjugation of women in general, and relegation of all household duties to women in particular, in the context of advanced industrialised societies which thrive on the tenets of consumerism. One of the most cogent and readable accounts in this class of arguments can be found in Prof. Galbraith. He argues that the indefinite expansion of consumer goods and services by billion-dollar corporations in these societies – which is what these corporattions are primarily aiming at – implies that consumption as an activity has to become a more and more elaborate, and hence a more and more time-consuming and in some sense, onerous task (9). For this to be possible, there has to exist a class of people who would do the increasingly burdensome and complex tasks of administration of household consumption. Typically the housewife assumes this role of what Galbraith calls the 'crypto servant'. The pervasive force that goes into the shaping of social attitudes glorifies the role of the women as the efficient home-maker – the mindless moron fashioned by the persuasive powers of the media, who in all her glory continuously cooks, cleans, polishes, bears and rears children, buys the latest brands of detergents and cake-mixes and tries to be decorative no matter what, for that is precisely what the social attitudes shaped by billion-dollar corporations working through the media desire them to be. In the context of our society, a similar social attitude glorifies the mother image to the point of worship (10). Perhaps the social sanction and glorification of motherhood and housebound work for women comes precisely because it is socially convenient to relegate women to that role. Being a mother, or a home-maker is, to borrow a phrase from Galbraith, 'a convenient social virtue', for otherwise the system will not function in a manner in which the powers that run the system would want it to function. In the case of Western societies it is the powerful 'planning system' (11).

In the context of our society, it is the crippling effect of tradition and convention.

One can perhaps now try to answer the question as to why the economics of housework has been a neglected area of enquiry so far, especially in view of the facts that (i) domestic work is not intrinsically non-marketable and (ii) that is not intrinsically woman-specific. In other words, in some socio-cultural set-up, all kinds of domestic work, barring child-bearing, can legitimately form a part of the social production system and second, in some cultural set up again, all kinds of domestic work can be, and have been, performed by men. The sex-roles assigned to women are a function of social attitudes and preferences rather than a biological phenomenon (12). Thus the dominant answer to the question posed above seems to be an amalgam of two factors : the inherent methodological problems of evaluating housework in the absence of proper markets, plus the overall marginality of women whose main role is in the home as the second sex. If the first reason makes the problem difficult and intractable, the second makes the effort needed to solve it unnecessary and uncalled for.

EVALUATION OF HOUSEWORK

Some writers have argued that the main difficulty regarding evaluation of housework as it stands is that it is largely outside the social production system; that unless the barriers between the private and the social domains, between family on the one hand and society on the other go, the problem will remain. While Marxist writers emphasise this as a structural phenomenon of the social system, implications of this 'privateness' of housework for its economic evaluation are quite clear. It implies a kind of segmentation between family labour and market labour which introduces a wedge between the real labour costs involved in the two situations. We will elaborate on this point later on. Leaving that aspect aside for the time being, we would like to sound a note of caution here. Even if we forget about the specific modalities of breaking the barriers between the private and the social domains, one should realise that being a part of the social production system by itself will not 'liberate' the housewife. Some of the most pervasive forms of exploitation are perpetrated under capitalism in the form of wage labour. So 'visibility' by itself cannot be a sufficient condition for alleviating the malady.

Can it be a necessary condition? There is no question that if housework were a part of the social production system, the economist's task would have been much easier than otherwise. Even if it were not, so long as there is a certain amount of mobility between housework and other kinds of market-oriented activities, one could define one's problems in clearly specified terms. In the West, for instance, where markets are much more pervasive than in India, almost the entire brunt of research on women's work has been on the question of discrimination in the place of work (13). This is because in Western countries, unlike in ours, for a very significant proportion of the female population outside the labour market, non-participation in the labour force is a matter of choice and not one of decree, however much this choice be conditioned by the prevailing social attitudes. The point is that in the presence of alternative uses of labour time, one can at least think in terms of its opportunity cost, something which one cannot do if the woman's time is not used anywhere outside the home. One is not suggesting revolutionary changes in existing social organisation. All one would like to argue is that given the prevailing state of familial arrangements in our society, if any attempts at evaluating housework has to be made, the first thing one has to do is to make housework much more 'visible' than it currently is. In other words, unless one has specific information on the nature and extent of effort spent on various activities, no attempts at estimating the potential value and/or the opportunity cost of the effort spent on housework can proceed. It is somewhat disconcerting that no attempt has ever been made to do so. No official or non-official agency collects information on the time-use pattern of nearly 50% of the population which is subsumed under the category of 'house-wives'. For the purpose of data-collecting agencies, they simply do not exist (14).

As a first step towards evaluation of housework what one needs is not merely an estimate of the nature and extent of effort spent, but also one needs to know in the context of a particular family how it is placed with respect to the market -- in its capacity of a producing as well as a consuming unit. Although somewhat inadequate, some attempts have already been made to provide macro estimates of the value of housework in the context of other countries. One of the earliest attempts in the area -- long before the women's question became the 'in' thing to write about -- has been by Colin Clark. Later, A.H. Shamsuddin estimated the value of women's work at about 24% of the GNP of the USA in 1964 prices. Galbraith reports an impressionistic estimate of an American housewife's services at about $ 13,500 a year in 1972 (15). The Chicago School economists working on the new household economics have been

evaluating the supply price of a housewife's services from basically the entry wage rate of the labour supply functions of similarly qualified women working in the market (16). To our knowledge, no attempt has been made to evaluate the services of a housewife in the context of any socio-economic group in our country.

WHY EVALUATE HOUSEWORK ?

At this point one feels one should set on record the necessity, particularly, in the context of a country like ours with nearly 88% of the female population being recorded as non-workers (17), of trying to make visible the effort spent on domestic work. For one thing, in a large part of the rural and the urban informal sectors, women's contributions to market-oriented production is intermittent, irregular and uncertain. The usual worker/non-worker classification used in official data collection systems fails to capture the true picture, not merely because of the intricate patterns of time use by women between market and non-market activities and continuous dovetailing of the two, but also due to biased reporting of the respondent whose response invariably depends on his or her own perception of the women's role in the household (18). So one part of the problem is to differentiate between housework and work for market production. But to do it one needs to have information on the time use pattern of the persons concerned. So information on the effort involved in domestic work is an outcome of this endeavour.

More importantly, do we need to do this exercise for the sake of evaluating housework itself? For one thing, it just does not seem to be right that nothing is known about the toils of nearly half the population of the country. This is so not merely because it gives us better information on how a large part of the nation's available labour time is spent, but also because some kind of an estimate of this essential service is necessary for constructing any quality of life index worth its name. People have by and large come to accept that for the purpose of international comparisons of living standards, simple GNP per capita is not of much use. Apart from the problem of choosing the proper prices to make comparative evaluation possible, one should be able to identify the goods and services that go into the commodity baskets that are being compared. Leaving an essential service out of the consumption basket because no value has been fixed on it, is a bit like throwing the baby away with the bath water.

A further aspect of the problem relates to the nutritional needs of people depending on the nature and extent of the work done. In working out the minimum nutritional requirements of sixteen different categories of the population, the Task Force on Projections of Minimum Needs, Planning Comission, Government of India, (19) categorised all non-workers as doing sedentary work, and by the quirk of official statistical wisdom, housework is 'non-work', so that 88% of our female population is automatically deemed to be leading a sedentary life. Apart from providing the basic data for any kind of nutritional requirements, housework data, properly conceived, can give us valuable insights into the nature and direction social planning should take. How long do the women in a particular village have to walk to get firewood? Drinking water? How long do they take to cook a simple meal? What is the wastage of energy involved? These are vitally important pieces of information. It is beginning to dawn on people that planning should reach the women directly. State development indices have been seen to be high correlated with female literacy rates. This is no coincidence. So long as masses of our women stay invisible no real development is possible. So visibility of the housewife one feels is a pre-condition of successful development.

II

In this section we will try to suggest some alternative methods of measuring the value of housework under different conditions in a micro-economic framework. This is only suggestive of the directions in which future work can be done. No attempt is made to present an aggregate measure of the value of housework for the country as a whole. Such an exercise can begin only after the implications for evaluation are clear at the micro stage.

Value of housework could mean either of two things. It could either stand for the net benefits derived from household labour in a particular context. In other words one tries to estimate the consumer's surplus derived from the services of a housewife. Or it could mean the shadow price of household labour. Unless ohterwise stated we will stick to the second meaning of the value of housework.

TWO KINDS OF HOUSEWORK

i) Housework With Links with the Market

In the context of our country one could broadly divide the cases into two groups : those where housework has some links with the market, and those where it has none. One could sub-divide the first group into three broad classes :

1. Case where the women concerned (20) has an alternative market outside the home for her labour time.

2. Case where the women concerned has no alternative use for her labour time but can employ somebody at home to do the housework.

3. Case where the woman concerned has no marketable skill, or cannot or will not employ anybody to do the work at home, so that somebody else, perhaps the male(s) in the household substitute(s) for her.

In these three categories listed above, one can attempt to measure the value of housework in the following manner. For case (1), where the women has a marketable skill but is still staying at home to do the housework, the value of this work has to be at least as high as the opportunity cost of her not working. This would be estimated from the entry wage rate, w_1 in the labour supply function of similarly qualified women in the market.

In case (2), the woman has no alternative use of her time. Either she has no marketable skills, or she is not willing or able to take up market-oriented activities due to cultural factors, or a combination of these reasons prevails. In this case, of course, the opportunity cost of the woman's time is zero. The only way to try to measure the value of services she renders is through an estimate of the value of the product. Since household services have no market, one way to estimate it would be by the amount of money one is willing to pay to a hired person to do the job. Thus price of domestic service per unit of time, w_2, could be a second measure.

In case (3), this option is also not there. This could be due to the absence of a market for domestic help. In such a situation if the women

ceases to do the housework, the male of the household might cut down on his market-work to be able to substitute for her at home. Here his opportunity cost of not working in the market, w_3, could be used as an indicator of the value of housework.

It is clear that this is only an indication of how things can be done. In practice, every single case may need a lot of modification. For one thing, one is assuming here that there is no difference in the quality of the services rendered by the housewife and her substitutes. This is unlikely to be the case. The social cost of substituting the services of the one by that of the other is a problem we are abstracting from here. Secondly, one might argue that none of the three markets indicated above, namely the market for the services of the housewife in case (1), the market for domestic servants in case(2) and the market for the male workers' services in case (3), need be competitive. Do we take the market wages as indicators of true value in such cases?

One can argue that if the non-competitiveness of these markets is of a classical variety, then there is not much problem, at least conceptually. One simply corrects the market wage rate by the elasticity of the demand or supply function of labour as the case may be. If, for instance, the product market is monopolistic the true value of labour will be given by

$$\frac{w_i}{(1-1/e_i)}$$

where e_i is the elasticity of demand curve, $i = 1,2,3$. It is only when non-competition arises due to segmentation, as it is likely to be for cases (1) and (2) that the problem of evaluation becomes acute. But then there is precious little one can do to correct for this bias excepting to note that it exists.

Finally one should note that in case of large-scale changes in the organisational patterns of housework, the wage rates mentioned above no longer remain constant. In such situations one has to make adjustments for such changes in estimating the value of housework.

ii) <u>Housework With No Links With the Market</u>

In a country like India with a large non-monetized sector there is likely to be a number of households with neither one of the three alternative

kinds of links with the market specified above. The women in these households may have no alternative use of their time outside the house. Households may be too poor, or culturally not conditioned to have hired personnel to do the work. As a matter of fact a market for domestic service may not exist in the vicinity. And the market behaviour of males in the household may not get affected by the availability or otherwise of household services. In such situations what does one use as a surrogate for the value of housework.

One method that has been used by cost-benefit analysts for fixing a value to a factor of production with no markets is to estimate annualised cost of producing and maintaining it through its productive life. While the idea of evaluating human beings as service-yielding commodities might be repulsive to many, one could argue that economic calculations are an essential ingredient in fixing the dowry or the bride price in different communities in this country. In fact, a whole lot of work on precisely these lines has been going on to decide on the economic value of children (21). But whereas in the case of children it is the parents who bear the cost as well as reap the benefits of having them, for a grown women who is given out in marriage to another family to continue the process of social reproduction of labour in all its aspects, the costs and the benefits are shared by two parties. So if not anything else, the parameters involved in the benefit-cost calculations will be different. In any case, this seems to be a totally mundane approach in this particular context.

This brings one to the other alternative for undersranding the nature of housework - i.e., the utility calculus of the family which can be looked upon as the basis of allocation of time between alternative uses by the family members. In general the family welfare function will be a function of the utility levels of all the individual members of the family. One would also, in general, expect consumption externalities to characterise these utility functions. But we will abstract from such considerations to concentrate on the essential features of time allocation of women not merely between market work and leisure as is usually done but more so between effort spent on domestic activities and leisure. For women with no marketable skills obviously the time spent on market-oriented activities will be zero. In order to evaluate housework in a situation where the household is largely insulated from the market in the sense specified above, one has to fall back on some kind of a concept of the real labour cost of household activities defined in terms of the marginal utility of consumption and the marginal disutility of labour.

For the purpose of exposition, let us take the simplest possible case of a household of n members, equally sharing the income earned by the male member(s) and spent on a commodity bundle (Q_1) purchased in the market at constant prices on the one hand and household services (Q_2) produced by the labour time of the single adult and working female member of the household on the other. Assume that $Q_2 = Q_2(L)$, $Q_2' > 0$, $Q''_2 < 0$; L : Household labour. Personal utility levels are functions of the per capita consumption levels of these two commodities, i.e.

$$U_i = U_i(q_1, q_2), \quad Q_j = \frac{Q_j}{n}, \quad j = 1,2$$

If one assumes that the income earned by the family in the market is given, the disutility of labour spent on market-oriented activities is also constant and family welfare, can be written as function of the utility levels of the individual members and the disutility of labour incurred by the female in rendering the household services. Calling this affine transformation of the family welfare function W, and assuming that individual utilities are additive and identical, one can write :

$$W = n^u(-, q) - V(L)$$

Where V(L) is the disutility of laoonr involved in household activities.

Making the usual regularity assumptions on the functions, i.e.

$$u' > 0, \quad u'' < 0, \quad V' > 0, \quad V'' > 0$$

the first order condition of welfare maximisation is given by :

$$Q'(L) = \frac{V'(L)}{U'(q)} = RLC(L)$$

Thus the real labour cost (RLC) turns out to be the marginal disutility of labour incurred in household work per unit of the marginal utility of consumption of a unit of these services.

Given the usual curvatures of the functions involved, it is easy to see that V'(L) is rising and U'(q(L)) is a declining function of L (Fig. 1) which makes RLC a clearly rising function of L.

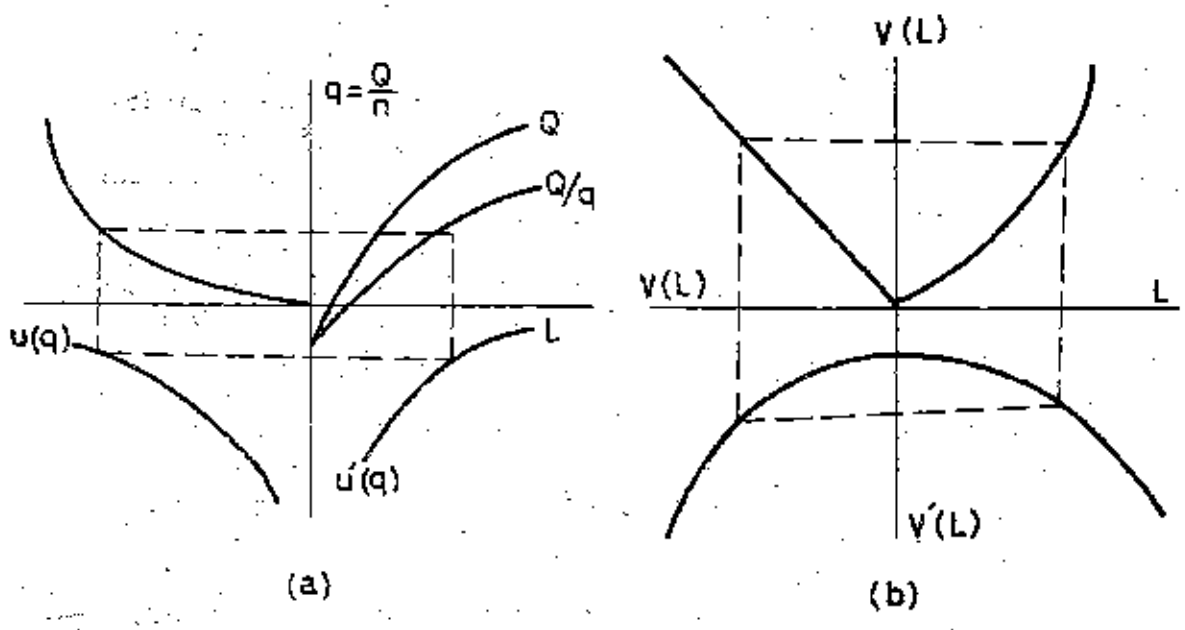


FIGURE 1

This has to equal the marginal productivity of labour spent on household activities in equilibrium, as is shown in the following diagram.

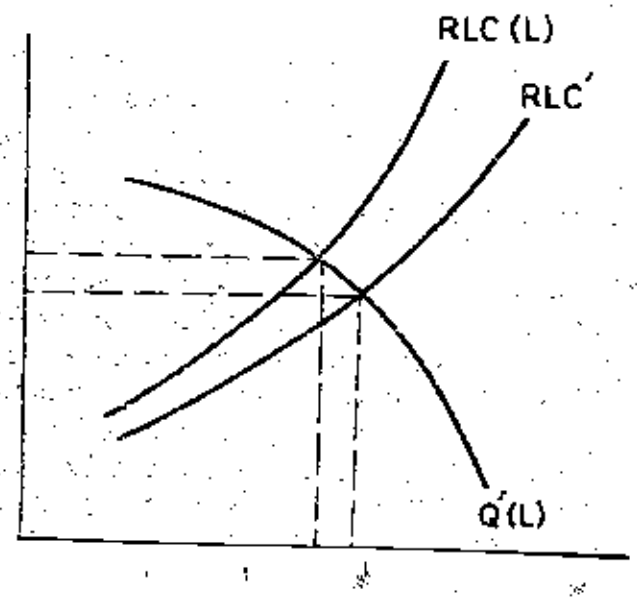


FIGURE 2

It is quite clear that, ceteris paripus a marginal disutility of labour curve which is uniformly lower in one situation as compared to another will shift the RLC schedule downwards (Fig. 2), generate a higher equilibrium value for labour time spent on household activities, and given the same marginal productivity schedule, a larger quantum of household services. A uniformly higher marginal utility schedule, given other things, will generate similar effects on labour time disposition. Thus in households where there is a high preference for household services predictably leads to a higher demand for the time spent in such services just as a low valuation by the women of her own leisure leads to a higher workload for her. In families where the intra-family distribution of all commodities including household services is skewed against the women, again the equilibrium L* will be higher than otherwise, for if the woman's utility level is still made to depend on her own consumption alone, the effect, in terms of our diagrams, will be like pushing the per capita consumption schedule in Fig. (1 a) downwards, thereby generating an upward shift in the U'(L) schedule, or a downward shift in the RLC schedule in Fig. 2.

It is also clear that in each of these comparative static situations, the exact magnitude of change in both the labour time as well as the real labour cost will depend on the relative elasticities of the various functions involved in the relevant ranges. If the marginal disutility of labour is a steeply rising curve, and/or the marginal utility of consumption of household services is fairly inelastic, it is likely that any incremental shift in the curves will induce only a small change in the labour time allocation and a relatively large change in the real labour cost.

In all of these situations, however, the problem of evaluating the real labour cost of time spent on household services still remains. In an altruistic situation where every member of the family is concerned with the welfare of all the others, Sen (22) has shown that under some conditions real labour cost of effort spent on non-market work can be shown to be equal to the supply price of labour. Otherwise, in general, RLC $>$ SPL. If in this case one assumes that the two are equal, then the question boils down to evaluating a unit of labour spent by the woman in household activities. Since here the output concerned is household services, one is back at the problem of evaluating that at market prices, or getting the cost of a unit of domestic service, which in principle could be different from the supply price of labour in the market. But given a low marginal utility of consumption, the supply price of labour within the household is likely

to be lower than the ruling market wage rate for un-skilled labour. Thus in the case of poor households insulated from the market, the market wage rate for unskilled female labour could give an upper bound for the price of household labour.

It can thus be argued that although real labour cost of household effort cannot be measured, it can be assumed to be equal to the supply price of labour under specific kinds of consumption externalities. Since within the household the supply price of labour is likely to be lower than it is outside in the market, real labour cost of household labour is likely to be bounded above by the going price of female labour in the market. To the extent there exists a wedge between the real labour cost and the supply price of labour, any links between the former with the going market wage rate might become blurred.

Thus, short of estimating the parameters of the family's welfare function, the best one seems to be able to do in this situation is to fix bounds within which the value of household labour is likely to be. While this is not much of an advance, one believes that sorting out the analytical problems involved in the area will help clarify issues and generate ideas for more fruitful analysis in future.

FOOTNOTES

1. Adam Smith, 'An Inquiry into the Nature and Causes of the Wealth of Nations'. Modern Library Edition, 1937. See also Karl Marx, 'Capital', Vol. I, Part I.

2. 'The Word Value', Smith writes 'has two different meanings and sometimes expresses the utility of some particular object and sometimes the power of purchasing other goods which the possession of that object conveys. The one may be called "value in use", the other "value in exchange". The things that have the greatest value in use have frequently little or no value in exchange; and on the contrary, those that have the greatest value in exchange, have frequently little or no value in use. Nothing is more useful than water : but it will purchase scarce anything; scarce anything can be had in exchange for it. A diamond, on the contrary, has scarce any value in use; but a very great quantity of other goods may frequently be had in exchange for it'. Cf. Smith, op.cit., p.28. "The utility of a thing makes it a use-value", writes Marx in Capital, Vol. I, Part I, Ch. 1, p.2. Then again, 'Labour too possesses the same two-fold nature', op. cit., which, of course, provides the foundation of Marxian economics.

3. See for instance, 'Macro-economics' by J. Lindauer, John Willey & Sons. 1970, p.26.

4. For a lucid discussion of the issues involved in the analysis of public goods and externalities, see E. Malinvaud, 'Lectures on Micro-economic Theory', North Holland, 1972. For cost-benefit analysis, a large number of texts are available. See E.J. Mishan, 'Elements of Cost Benefit Analysis', George Allen and Unwin, 1977, or Guidelines for Project Evaluation, United Nations, 1972.

5. Fredrick Engels, 'The Origin of the Family, Private Property and the State', first published in 1884. Cf., for instance, the following passage; 'According to the mother right, that is, as long as descent was reckoned solely through the female line, and according to the original custom of inheritance in the gens, it was the gentle relatives that at first inherited from the

deceased member of the gens. The property had to remain within the gens. As wealth increased, it created a stimulus to over-throw the traditional order of inheritance in favour of the children. But this was impossible as long as descent according to mother right prevailed. This had, therefore, to be overthrown, and it was overthrown. The overthrow of the mother right was the world-historic defeat of the female sex'. Cf. pp.487-8, Selected works of Karl Marx and Frederick Engels, Progress Publishers, 1970. Also see Karen Sacks, 'Engels Revisited : Women, the Organisation of Production and Private Property', in Rayna R.Reiter (ed), 'Towards an Anthropology of women', 1975.

6. For a survey of this and related issues, See Naomi Quinn, 'Anthropological studies on Women's Status' in the annual Review of Anthropology, Vol.6, 1977, edited by Bernard J.Siegel et. al. Also Reiter, op.cit.

7. Elizabeth Reid, 'Women at a Standstill: The Need for Radical Change', International Labour Review, 1975.

8. Quinn, op.cit.

9. J.K.Galbraith, 'Economics and the Public Purpose'. Vikas 1974. Especially chapters 4 and 23. For an interesting analytical variant of this line of arguments, refer to the fast expanding literature on a branch of consumer demand theory known as the 'new household economics'. Here market goods are distinguished from 'commodities'. Goods are transformed into commodities when the household's (non-market) time endowment is combined with them - almost in an activity analysis sense - and it is only commodities that enter the family's utility function. For an early exposition of this line of thought in economics, see Gary S. Becker, ' A Theory of Alocation of time', Economic Journal, 1965, and K.Lancarter, 'Consumer Demand', Columbia University Press, 1972. See also A.B.Atkinson and N.H.Stern, 'On Labour Supply and Commodity Demands', Chapter 10 in 'The Theory and Measurement of Consumer Behaviour : Essays in honour of Sir Richard Stone, edited by Angus Deaton. Cambridge University Press, 1981.

10. Cf. 'The Hindu Woman', by Margaret Cormock, Asia Publishing House, 1961, especially chapter 8 on Motherhood. Also A.S. Altekar. 'The Position of Women in Hindu Civilisation : From Pre-Historic Times to the Present Day', Motilal, Banarsidas, 1973.

11. Galbraith, op.cit., Sections 3 and 4.

12. Ester Boserup, 'Women's Role in Economic Development, 1970. Also Maria Mies, ' The Social Origins of Sexual Division of Labour', Institute of Social Studies, The Hague, Occasional Papers, No.85, Jan.1981. Lourdes Beneria, 'Reproduction, Production and the Sexual Division of Labour, Cambridge Journal of Economics, Vol.3, Sept. 1979.

13. See, for instance, the papers by M.D.Keyserling and N.Seear on the Economic status of Women in the United States and the United Kingdom respectively, in the American Economic Review, May 1976.

14. Swapna Mukhopadhyaya, ' Women and Work : Some pertinent Issues'. Note presented to the First National Conference of Women in Bombay, April, 1981.

15. Colin Clark, 'The Economics of Housework', Bulletin of the Oxford University Institute of Statistics, May 1958. A.H. Shamsuddin, ' The value of Housewives Activities in the U.S.'. in Economics and Business Bulletin, Philadelphia, Summer 1968. J.K.Galbraith, o.p. cit. p.33.

16. For a sample of the types of questions being analysed by the Chicago School Economists, see the various papers in T.W.Schultz (ed), 'Economics of the Family : Marriage, Children and Human Capital', University of Chicago Press, 1973.

17. 1971 Census figures. In the 1981 Census, alternative definitions of a 'worker' have been used to capture the magnitude of marginal and secondary workers as well. The results are not yet available. For an eloquent discussion of the problem see the introductory chapter in 'Status of Women : Shifts in Occupational Participation, 1961-1971' by Ashok Mitra, Lalit P.Pathak and Shekar Mukherji.

18. See Ashok Mitra et.al. in 'The Status of Women : Shifts in Occupantional Participation, 1961-71' an ICSSR/JNU project on Population Change Series No.9. Also note their discussion on how effort spent on market-oriented but basically home-based activities get neglected as productive work.

19. Report of the Task Force on Projections of Minimum Needs and Effective Consumption Demand, Perspective Planning Division,

Planning Commission, Government of India, January 1979. The Committee estimated the nutritional requirements and consumption demands of various categories of people below and above the poverty line in rural and urban India, using a lineer expenditure system. The final consumption demand thus obtained was to be fed into the inter-industry model to arrive at the gross output levels needed to sustain it.

20. Or any person or persons doing the housework. For the purpose of illustration we assume it is the women. of the house. What follows is independent of the sex of the person concerned.

21. See for instance, ' the Proceedings of the symposium on household economics', Manila, 1977, M.Valssoff. 'Labour Demand and Economics utility of chilren: A Case Study in Rural India', Population studies, 33, No.2, Nov.1979. Mead Cain,'Risk and Fertility in India, and Bangladesh. Population and Development Review, Vol7, No.3, Sept. 1981.

22. Amartya Sen K, 'Peasants and Dualism with or without surplus labour'. Journal of Political Economy. Vol.LXXIV,1966. Also Amartya Sen, Employment, Technology and Development, Oxford University Press, 1975.

Technical Seminar on
WOMEN'S WORK AND EMPLOYMENT
9-11 April 1982

RURAL POVERTY AND FEMALE HEADS OF HOUSEHOLDS : — NEED FOR QUANTITATIVE ANALYSIS

G Parthasarathy *

* Andhra University, Waltair

In the recent literature on development there is an increasing recognition of the inter-relationship between the role of women in society and rural development. There are several aspects of these inter-relationships. Participation of women in economic activity is much more than what is evident from the statistics on labour force and economic activity. Wider recognition and involvement of women in the decision-making processes associated with such women-intensive activities as dairying and household industries would contribute to better development planning. The success of programmes pertaining to health, nutrition, childcare and family planning is also seen to depend upon the involvement of women in the decision making processes. The need for recognizing the role of women in rural development programmes is even greater in situations in which a significant proportion of women happen to be heads of households. There is very little knowledge even on the significance of households in which females are heads; there is even less knowledge on the association between poverty and households in which females are heads. With reference to the first aspect, the gap can easily be filled by tabulating the census data by the sex of the head of the household. Such a retabulation could generate a country-wide picture for the various regions and sub-regions on the significance of female heads of households. It will then be possible to examine how the socio-economic characteristics of such households differ from others. The second aspect, i.e. association between the significance of female heads of households and rural poverty, could be examined by retabulating the available data in studies on rural poverty by sex of the head of the household. The object of this note is limited. It is to illustrate the relevance of the sex of the head of the household to studies on rural poverty.

Description of the Area of Study and the Data Base

The data for this illustrative exercise for examining the significance of the female heads of households and of the association between rural poverty and the proportion of female heads of households are drawn from

---

The author gratefully acknowledges the statistical assistance of Sri Patrudu and Sri Subrahmanyam of Agro-Economic Research Centre, Andhra University, Waltair. They have, however, no responsibility for the views expressed.

the household survey of Kotauratla Panchayat Samithi, Vizag district. The survey was conducted under the supervision of Agro Economic Research Centre, Andhra University, Waltair in 1980. The survey covered all households in the block and was intended to meet the data requirement, for preparation of block plans under the Integrated Rural Development Programmes. The Samithi was a former Zamindari area.

Major percentage of area is dry, and the wet land is covered mainly by small tanks whose average ayacut is no more than 40 acres. Proportions of landless labour are high for a dry area. The incidence of poverty, as seen from the income data is quite high; 88 percent with a poverty norm of Rs.700/- per capita and 50 percent with a poverty norm of Rs.350/- per capita.

The primary tabulation of the data for all the households is available by three main variables, viz. Income, Caste and Occupation. The data in primary tabulation sheets included the name of the head of the household. Sex was not recorded in the primary tabulation sheets. But it was possible to identify the sex of the head of the households. Since the analysis in this note is done on the basis of the data available in the primary tabulation sheets (the schedules were returned to the block authorities) it had to be restricted only to a few variables, viz., income, caste, occupation and preferences mainly for the purpose of illustrating how analysis by the sex of the head of the household is meaningful in rural poverty studies.

Female heads and Rural Poverty

The significance of households with female heads in different income groups is shown below:

Households with female heads in different per capita income groups in Kotaurtala Block

Category	Less than Rs.175/-	Rs.175 - Rs.700	Above Rs.700/-	All
Households with Female heads	510 (14.60)	2657 (76.04)	327 (9.36)	3494 (100.00)
Rest	2335 (9.33)	19671 (78.60)	3009 (12.07)	25015 (100.00)
Total	2845 (9.98)	22328 (78.32)	3336 (11.70)	28509 (100.00)

The bottom per capita income group, i.e. less than Rs.175/- represents the 'poorest of the poor', while the above Rs.700/- per capita income group represents those above the specified poverty norm of Rs.700/- per capita. The percentage of the 'poorest of the poor' (Antyodaya) households in the group of households with female heads is significantly higher than the corresponding percentage among the rest of the households. And, the percentage of households above the poverty norm are significantly lower among households in the above poverty norm group. These facts signify that the group of households with female heads have some distinct characteristics which have relevance to the understanding of the nature and dimensions of rural poverty.

The quantitative significance of households with females as heads in each income group is shown below:

Significance of households with female heads in each per capita income group (in %)

Category	Less than Rs.175	Rs.175—700	Above Rs.700
Households with Female heads	17.93	11.90	9.74
Rest	83.07	88.10	90.26
Total	100.00	100.00	100.00

A distinct pattern is observable as we examine the trends in the percentage with changes in per capita incomes. Households with female heads from a higher proportion in the poorest of the poor group as compared to other income groups.

Caste-wise distribution and Female heads of Households

The significance of female heads of households in the total has both economic and sociological connotations. Among the landed families the proportion of joint families in which widowed mothers stay with married children is larger than among landless families. Insofar as the proportions of landless are distinctly larger among Scheduled Castes and Scheduled Tribes the economic and sociological factors converge and a higher proportion of female heads could be expected among these caste-groups. Similarly, a custom is found to permit easy divorces among lower caste group as compared to upper castes. One could expect higher proportion of female heads of households among lower caste groups.

Distribution of heads of households within each caste group

Female heads	SC	ST	BC	FC	Total
Female heads	614 (14.62)	59 (10.52)	2211 (11.65)	610 (12.77)	3494 (13.90)
Rest	3584 (85.88)	502 (9.48)	16763 (88.35)	4166 (87.23)	25015 (76.10)
Total	4198 (100.00)	561 (100.00)	18974 (100.00)	4776 (100.00)	28509 (100.00)

Female heads of households as a proportion of the total are the highest among the scheduled castes. But the proportions do not show any order of relationship with caste, hierarchy. The proportions among forward castes are in fact higher than among backward castes. Other characteristics of the household such as occupation, widowhood, possession of land etc., should be expected to have a greater association with the significance of the female heads than caste. These could not be examined from the data available in the primary tabulation sheets. The distribution of female heads within each caste by income groups is examined for studying variations in the distribution by caste.

Distribution of Female Heads of households by Caste and Income Groups

Caste/Income Group	Rs.0-175	Rs.175-700	Above Rs.700	Total
SC	106 (17.26)	490 (79.80)	18 (2.94)	614 (100.00)
ST	3 (5.08)	51 (86.44)	5 (8.48)	59 (100.00)
BC	283 (12.80)	1696 (76.70)	232 (10.50)	2211 (100.00)
FC	118 (19.34)	420 (68.85)	72 (11.81)	610 (100.00)
Total Households with female heads	510 (14.60)	2657 (76.04)	327 (9.36)	3494 (100.00)
All households including male heads	(9.98)	(78.32)	(11.70)	(100.00)

The distribution of female heads of households by income groups within each caste group shows that both among the scheduled castes and forward communities the percentages of the poorest of the poor are far higher than for others. The apparent similarities between scheduled castes and forward communities in respect of higher proportions among the poorest of the poor can be explained only by a deeper probe into other socio economic characteristics of the female heads.

Female heads of households and the total heads: Percentage distribution by Income Groups within each caste

		Below Rs. 175	Rs.175-700	Above Rs.700	Total
SC	Female Heads	17.26	79.80	2.94	100.00
	Total	9.14	85.17	5.69	100.00
ST	Female Heads	5.08	86.44	8.48	100.00
	Total	4.81	85.92	9.27	100.00
BC	Female Heads	12.80	76.70	12.50	100.00
	Total	9.79	78.95	11.26	100.00
FC	Female Heads	19.34	68.85	11.81	100.00
	Total	12.04	69.00	18.96	100.00

In every caste group the percentage of the poorest of the poor form a higher proportion among the female heads of households as compared to the corresponding percentages to the total. Similarly, the percentage of households above the poverty norm is lower among the female heads except among the backward communities.

Occupational Pattern : Female heads and Others

Female heads of households belonging to the poorest of the poor group (below Rs.175/-) are picked up for analysis of the occupational structure. The occupational structure of this group is compared with the corresponding occupational structure of all households in the poorest of the poor group and also total households belonging to all income groups.

Occupational Pattern

(Female heads in the poorest of the poor group, all heads in the poorest of the poor group and total heads)

	Agrl. labour	Non-Ag. labour	Marginal farmers	Small Farmers	Large Farmers	Others	Total
Poorest of the poor:							
Female heads	47.65	9.80	15.49	3.53	-	23.53	100.00
All Heads	31.28	4.75	24.78	11.78	1.40	26.01	100.00
Total households in all income groups	29.77	5.56	16.07	16.08	12.71	19.81	100.00

Among households with females as heads, dependence on wage-paid labour is substantial as compared to all households in the same income group. The differences are far more in comparison with total households in all income groups. Correspondingly, the proportion of cultivators is far less among female heads as compared to the male heads in the same income group and all income groups.

Thus, the female heads are seen to belong to a much more marginalised section in the rural areas even among the poorest of the poor.

Preferences of the Female heads of Households

As part of the socio-economic survey which was intended to providing the data base for integrated rural development the preferences of each of the head of the household among alternative programmes of development are elicited. While preferences expressed have several limitations as basis for planning, they provide an important set of data for assessing the planning needs.

Preferences of Female Heads of Households poorest of the poor and All

Poorest of the poor female heads	Land Devt.	Wells	Oil Eng.	Work cattle with cart	Dairy	Sheep/ Goats/ Pigs	Trade	Misc.	No Need
Poorest of the poor									
Female heads	0.98	1.76	0.19	2.16	56.08	8.63	10.98	3.14	16.08
All heads	9.90	3.02	0.84	1.90	54.55	16.76	8.22	4.85	6.26
All households in all income groups	5.96	4.32	1.53	16.61	43.41	11.22	4.73	6.96	5.26

Even among households belonging to all income groups, the majority of households opt for cattle based programmes, mainly dairying, sheep, goat and pigs. This pattern of preferences becomes meaningful when judged against the large proportions of landless and marginal farmers. The prospects of a ground water development are relatively poor and the costs of well irrigation are quite high ranging very often around Rs.30,000/- for a well with an ayacut of less than 2 hectares. Among the poorest of the poor the preferences for land-based occupations are even less. Within this group, a much smaller proportion opt for land-based developmental programmes among the female heads of the households. The proportions opting for cattle based occupations are understandably larger among the poorest of the poor as compared to other groups since among these groups the landless form a much higher proportion. The preferences recorded among households with female heads in the poorest of the poor group are comparable to those in the same group with male heads. However, a larger proportion, as compared to male heads is seen against petty trade. Among vegetable vendors and petty traders females form a larger proportion. The more significant difference in the preferences recorded is under 'no need'. One sixth of the female heads of households record 'no need', as against less than one sixteenth among all heads in the poorest of poor group and around one twentieth among all. The proportion among female heads needs to be interpreted with caution. It implies the greater lack of involvement of female decision makers in development programmes, and also a larger proportion among those who cannot take advantage of development programmes. A detailed analysis of the socio-economic characters is needed for classifying the nature of the problem.

Summary and Conclusions

The object of this note is to illustrate the need for quantitative analysis of the socio-economic characteristics of female heads of households. This illustrative exercise shows that around or in eight heads of households, there is a female. Among female heads the proportions of poorest of poor are higher than the corresponding proportions for others. This is true of all caste-groups. The poorest of the poor among female heads form relatively higher proportions both among forward communities and scheduled castes. The occupational pattern of the poorest of the poor households in comparison with other groups shows there are more marginalised groups among such households. They are also marginalised in a different sense also. Many are so inadequately involved with decision making bodies in development programmes that a significantly higher proportion among this group expresses 'no need' despite a higher proportion of the poorest. The data constraints in primary tabulation sheets did not permit an analysis in depth of the socio-economic characteristics of female heads. However, the data analysed are adequate to show that female heads form a significant and distinct category calling for separate analysis of the available data in national census.

Technical Seminar on
WOMEN'S WORK AND EMPLOYMENT
9-11 April 1982

SOURCES OF VARIATION IN FEMALE LABOUR FORCE PARTICIPATION : A DECOMPOSITION ANALYSIS IN INDIA

Bahnisikha Ghosh and Sudhin K Mukhopadhyay*

*Department of Economics, University of Kalyani, Kalyani 741 235
West Bengal.

The participation of women in labour force has been universally recognised to be an important element in the adoption of the small family norm, essential for the achievement of the twin goals of economic development and population planning. Such a recognition, however, presupposes not only the existance of a strong conflict between the economic employment of women and child rearing but also an even stronger association between female employment and their status. As such, enhancing the participation of women in the economic activity of the nation and thereby improving their status is seen not only as a possible means of reducing birth rates, but as a clear goal in itself, regardless of its demographic consequences.

Until recently, in India as in many other developing countries, the role of women in the economic activity of the nation was totally ignored. In fact, the preoccupation with specific patterns of economic development often resulted in the relative neglect of women's needs and the process of development itself often had some serious negative repercussions on the status of women thus worsening, rather than improving, their condition. The recommendations of the United Nations World Conference (Mexico, 1975) to declare 1975-85 as the International Women's Decade and to initiate plans for raising the status of women and for ensuring their full involvement and integration in the process of development at all levels, helped at last to focus attention on the problems specific to women such as the steadily declining trend of their participation in the work-force in India.

Detailed analysis of available recent data on employment in India points to the fact that there has been a drastic reduction in the number of women workers as well as in their work paticipation rates. According to the Census of India, which is one of the most important sources of employment data, the work-force participation rate for the female dropped from 28% in 1961 to 14.2% in 1971 which climbed back upto 21% in 1981. These rates suggest that the participation of women in gainful economic activity outside the household has been declining steadily over time. Although the participation rate of the male has also been on the decline, this is mainly due to the fact that the male population has been growing faster than the rate of their absorption in the labour-force. The reasons for the decline in female work participation rates are somewhat different. It is believed that the main element responsible for worsening of the employment situation for the female is the sex substitution in the work-force as a whole (Advisory Committee on Women's Studies, ICSSR(1977); Mitra (1979))

and this has intensified concern about the status of women in Indian society.

One obvious hypothesis which may be set up to explain the alleged trend of displacement of the female by the male is that economic change in India might have caused the technological and occupational structure of the economy to have undergone a transformation biased in favour of the male such that there has been a smaller expansion of the sectors where female workers predominate. Such a negative influence may be hypothesized to be due to the existence of some sort of sex-specific rigidity with respect to employment generation inherent in the process. A second hypothesis is that the Indian economic scene featured by growing unemployment and sluggish growth of income per head fails to provide sufficient opportunity or incentive to attract many of the potential workers, most of them female, into the work-force. In such a situation, women may often be considered as refraining from joining the work-force voluntarily. Such withdrawal of women naturally causes the composition of the labour-force to be tilted in favour of the male. It, therefore, follows that economic expansion through appropriate technologies could generate sufficient employment of the right type to absorb these potential (female) members of the labour-force and thus improve the share of the female in the work-force of the nation significantly. The difference between these two hypotheses is that in the first there is a case of degeneration of occupations specific to women with economic change, while in the second, it is the substitution between the two sexes which is associated with the changes in female work participation rates. Yet another factor which might explain the changes in the participation rates of the female is the sex ratio of the population. A fall in the work participation rate of women might be associated with a rise in their proportion in total population.

In order to test these hypotheses and to measure the relative strength of these individual factors in influencing female participation a districtwise decomposition analysis is attempted on a few states of India in the next section. In view of data available, the states of Haryana, Maharashtra, Punjab, Tamil Nadu and West Bengal during 1961-1981 have been selected for this purpose.

II

In this section an analysis is attempted of the factors underlying the change in female work participation rates and of the relative strength of their influences.

It has been shown earlier that according to various hypotheses, female participation (W_f/P_f) may be determined by any of the three following factors : (1) female share in total work force (W_f/W) ; (2) the level of employment in the economy (W/P) and (3) the proportion of female in the population (P_f/P). However, it is hypothesized here that all these three factors exert their influence simultaneously on female work participation rates. Therefore, using an identity it may be shown that

$$\frac{W_f}{P_f} = \frac{W_f}{W} \cdot \frac{W}{P} \cdot \frac{P}{P_f}$$

Rewriting this identity as :

$$Y_1 = [X_{1.1}] \cdot [X_{2.1}] \cdot [X_{3.1}]$$

and $$Y_2 = [X_{1.2}] \cdot [X_{2.2}] \cdot [X_{3.2}]$$

and differencing over the census years, we have :

$$Y = (\triangle X_1 \; X_{2.1} \; X_{3.1} + \triangle X_2 \; X_{1.1} \; X_{3.1} + \triangle X_3 \; X_{1.1} \; X_{2.1}) + (\triangle X_1 \; \triangle X_2 \; X_{3.1} + \triangle X_1 \; \triangle X_3 \; X_{2.1} + \triangle X_2 \; \triangle X_3 \; X_{1.1} + \triangle X_1 \; \triangle X_2 \triangle X_3)$$

Where ,

Y_1	=	participation ratio for the female at time '1'
Y_2	=	participation ratio for the female at time '2'
$X_{1.1}$	=	Female/Male Ratio in work force at time '1'
$X_{1.2}$	=	Female/Male Ratio in work force at time '2'
$X_{2.1}$	=	Total workers/Total Population at time '1'
$X_{2.2}$	=	Total workers/Total Population at time '2'
$X_{3.1}$	=	Inverse of Female Population/Total Population at time '1'
$X_{3.2}$	=	Inverse of Female Population/Total Population at time '2'

According to the above expression the change in female participation ratio can be decomposed into the three components on the right hand side : (i) the effects of change in the ratio of female to total workers, other things remaining the same : an index of sex-substitution in work-force, called Displacement Effect; (ii) effect of change in the employment level within the economy - an index of economic activity, called Employment Effect, and (iii) the effect of change in the sex-ratio in the population, called Demographic Effect. The rest denotes inter-actions among the three factors.

The above models has been applied to analyse the contribution of the three factors to the change in women's participation in the labour-force for the states of Haryana, Maharashtra, Punjab, Tamil Nadu and West Bengal and 65 districts belonging to these states during 1961-81*. The state and district-level data have been taken from the Census of India, 1961, 1971 and 1981. The results have been given in the Appendix.

The decomposition has been carried out for three time intervals : 1961-71, 1971-81 and 1961-81. It would appear that by and large for most of the districts female work-force participation rates (WPR) declined during 1961-71. The rates, however, have shown an increase in most cases during the decade 1971-81, but the extent of the increase has not been enough to make up for the decline in the first decade and as a result the rates during the overall period 1961-81 still register a fall. Of course, part of the measured decline in WPR during 1961-71 can be attributed to the differences in the census definition of work-force, and for that matter, the comparison between 1961 and 1981 would be more meaningful.

It would appear from the results that the relative magnitudes of the three effects - displacement, employment and demographic, have been remarkably similar for the three time periods for the states and districts studied. This implies that the forces operating within the society and the economy are remarkably stable irrespective of the direction in which the WPR moves. The same factor which causes a decline in this ratio would also be intrumental in leading to its increase. This study shows that of the three factors mentioned, the displacement of the female by the male in total work-force is by

---

* Five districts have been ommitted because of inconsistencies in data.

far the most dominant over time and space in India. The second most important factor is the economic factor, that is, the level of employment while the demographic factor plays only a marginal role in determining the WPR. However, variations do exist as for instance, in Maharashtra where employment effects are as strong as and often stronger than displacement effect. Moreover, there is a sizeable contribution by the interaction among these factors which is not discussed here.

To illustrate the pattern of the three main factors determining the changes that have taken place in WPR only the results for the 1961-81 period are briefly discussed here. During this period the displacement effect has been most pronounced in the states of Haryana and Punjab where about 90% of the decline in WPR is due to this factor alone, while the corresponding figure for Maharashtra, Tamil Nadu and West Bengal are, respectively; 58%, 61% and 68%. In more than half of the districts covered the substitution of female by male in the work-force has accounted for more than 60% of the net decline in WPR. The districts in Maharshtra seem to present a somewhat different picture. In 18 out of 26 districts in the state the contribution of the employment effect is stronger than the displacement effect. However, the difference between the two effects is still not much and male-female substitution does remain a dominant factor.

The employment effect loses its importance to a great degree in the districts of Haryana where it ranges from 21% - 48%. In Punjab it is practically insignificant in all districts except one. In West Bengal and Tamil Nadu there is significant variation in the impact of the employment effect and it clearly remains the second most important factor in determining WPR.

The results also suggest that changing sex-ratio in population has not had much influence upon WPR. During 1961-81 there has been some increase in the number of female per 1000 male which accounts for a negligible proportion of the decline in WPR. The regional variation, however, suggests that at the state-level the contribution varies from zero in Haryana and Maharashtra to 3.8 in West Bengal. In the state of Tamil Nadu where sex-ratio in 1961-81 resistered a fall in the number of female per 1000 male, the net effect being a marginal favourable contribution to WPR.

It thus appears that for most of the districts covered in the study,

the net decline in WPR during 1961-81 has been accompanied by a fall in all the three factors : sex-specific role for the female in the work-force, the level of employment generation and the proportion of women in population. The analysis seems to support the point often made that it is the increasing displacement of the female by the male which is mostly responsible for the decline in female labour-force participation. However, its importance varies from place to place and economic and demographic factors also are not entirely negligible everywhere in the country.

III -

The analysis in the preceding section, insofaras it does not discuss the effect of the interaction among the social, economic and demographic factors, might not be entirely accurate. The interactions are important and they must also be taken into account. In this section an attempt is made at a brief examination of the interaction between the female share in total employment and the level of employment in the economy. The hypothesis is that in an economy characterised by increasing unemployment and sluggish rate of growth there would be readjustment in male-female participation in economic activity, where the male would take over more and more of the erstwhile female occupations outside the home and send the female back to the household activity. An obverse of this hypothesis is that economic expansion, especially at higher levels, would attract more and more of the potential female members of the labour force and would thus tilt the composition of employment so that their share increases. The opposite is likely to happen during economic stagnation.

This hypothesis is tested here using a linear relationship postulated between the two variables, Y and X, representing female share in employment and the ratio of workers to total population respectively. The following equation is fitted to cross-section district data for Haryana, Maharashtra, Punjab and West Bengal :

$$\triangle Y = a + b \triangle X$$

where $\triangle$ represents difference between 1961 and 1971 censuses

in the values of X and Y. The results of this estimation presented in Table 1 below show that there is a strong and positive relationship between female share in employment and the level of employment in the economy. In other words, the higher the growth of the economy and the corresponding growth in employment, the stronger becomes the position of the female in the total work-force. The female seems to be relatively more vulnerable to the adverse effects of the lack of economic development.

IV

To sum up, the analysis based upon census data suggests that in India during the last two decades the female have lost ground to the male in work-force participation. The most important factor contributing to this has been their displacement in the total work-force by the male. The second most important factor has of course been a slow rate of growth for the economy which has tended to dissuade potential female workers out of the work-force. The male-female ratio in the overall population has also gone against the female worker, though marginally. Development policy and choice of technologies to accompany this development should have to consider the social dimension of the problem reflected in the shrinking role assigned to the female in economic activity as much as the problem of pure employment generation.

Table I

Relationship between female share in Employment and level of Employment : Haryana, Maharashtra, Punjab and West Bengal

(1961-71)

Dependent Variable : Female share in Total

States	Constant	Level of Employment (Independent variable)
Haryana	4.40	2.24 (13.22)
Maharashtra	3.69	1.29 (2.34)
Punjab	1.04	2.24 (7.20)
West Bengal	0.80	1.12 (11.23)

Figures in parentheses denote t-values.

Source of variations in Female Labour Force Participation: A Decomposition Analysis in India

- Bahnisikha - Ghosh and Sudhir K Mukhopadhyay

APPENDIX

Explanation of Change in Female Participation Ratio

State/District	Ierior	Percentage change in Female labour Force participation rate	Percentage of change in female labour force participation rate explained by			
			proprotion of Female in total workers	Proportion of working force in total population	Proportion of female to total population	Interaction
(1)	(2)	(3)	(4)	(5)	(6)	(7)
HARYANA	1961-1971	-17.97	96.32	34.09	-0.53	-29.87
	1971-1981	2.41	90.31	5.57	-0.46	4.59
	1961-1981	15.56	89.34	33.60	0.00	-22.94
Mahendragarh	1961-1971	-22.97	94.32	42.06	-2.37	-34.02
	1971-1981	- 1.71	78.28	26.01	6.86	-11.16
	1961-1981	-24.68	92.87	45.54	1.06	-39.42
Ambala	1961-1971	- 4.83	97.01	18.78	4.06	-19.34
	1971-1981	1.11	90.40	7.45	-1.39	3.54
	1961-1981	- 3.72	86.19	20.27	7.07	-14.23
Karnal	1961-1971	-10.32	96.19	24.37	0.00	-20.56
	1971-1981	2.14	88.87	5.79	-0.38	5.71
	1961-1981	- 8.18	91.07	22.64	0.69	-14.40

contd...

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rohtak	1961-1971	-25.26	96.29	43.07	-5.37	-33.99
	1971-1981	4.68	86.05	5.46	-0.44	8.94
	1961-1981	-20.58	85.84	43.15	-5.26	-23.73
Gurgaon	1961-1971	-23.20	95.05	36.97	-1.55	-30.46
	1971-1981	2.43	120.54	-7.50	-1.79	-11.24
	1961-1981	-20.77	85.16	47.67	0.58	-33.41
Hissar	1961-1971	-23.73	93.82	36.86	0.52	-31.19
	1971-1981	2.83	89.21	5.79	0.00	5.00
	1961-1981	-20.90	88.34	37.03	0.59	-25.96
MAHARASHTRA	1961-1971	-18.4[illegible]	69.60	66.28	0.00	-15.96
	1971-1981	4.70	18.72	79.79	-1.91	3.30
	1961-1981	-13.7[illegible]	57.60	53.45	0.00	-11.05
Thana	1961-1971	-17.97	74.82	41.48	-1.93	-14.38
	1971-1981	1.49	60.90	26.28	10.90	2.19
	1961-1981	-16.48	78.04	43.32	-5.56	-15.80
Kolaba	1961-1971	-17.48	59.48	55.12	-1.21	-14.38
	1971-1981	3.18	62.87	34.53	0.00	2.60
	1971-1981	-14.29	54.74	57.12	-1.48	-10.38

contd...

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Ratnagiri	1961-1971	-13.99	41.92	65.52	2.34	-9.78
	1971-1981	- 1.18	35.83	65.00	0.00	-0.83
	1961-1981	-15.17	42.84	67.27	0.00	-10.12
Nasik	1961-1971	-18.35	61.48	52.75	0.00	-14.24
	1971-1981	8.03	55.34	35.99	1.35	7.31
	1961-1981	-10.32	53.99	56.27	-4.02	-6.24
Dhulia	1961-1971	-19.29	65.33	47.44	-1.92	-10.85
	1971-1981	4.42	68.85	31.65	-4.39	3.88
	1961-1981	-14.87	61.63	50.15	0.00	-11.77
Jalgaon	1961-1981	-15.92	62.17	51.97	-1.18	-12.97
	1971-1981	5.48	54.00	40.54	0.00	5.45
	1961-1981	-10.44	58.57	50.56	-1.78	-7.34
Ahmednagar	1961-1971	-23.49	66.09	53.83	-0.89	-19.03
	1971-1981	12.45	61.03	28.94	-0.73	10.75
	1961-1981	-11.06	43.72	63.53	0.00	-7.24
Pune	1961-1971	-17.49	74.84	43.30	-0.89	-17.25
	1971-1981	4.34	79.90	18.10	-1.64	3.64
	1961-1981	-13.15	65.67	47.63	-1.18	-12.11

contd...

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Satara	1961-1971	-28.83	69.06	55.59	-0.81	-23.85
	1971-1981	6.41	69.91	26.60	-2.63	6.11
	1961-1981	-22.42	57.96	58.07	1.04	-17.06
Sangli	1961-1971	-21.65	81.16	41.91	-0.73	-22.23
	1971-1981	5.42	76.48	18.98	-1.84	6.38
	1961-1981	-16.23	72.59	41.95	0.98	-15.53
Sholapur	1961-1971	-16.79	73.87	43.22	0.00	-17.09
	1971-1981	7.51	69.75	23.25	-0.93	7.93
	1961-1981	- 9.28	60.85	47.59	0.00	- 8.45
Kolhapur	1961-1971	-20.88	74.62	44.77	-0.86	-18.52
	1971-1981	5.62	73.87	22.25	-1.42	5.30
	1961-1981	-15.26	65.74	47.17	0.00	-12.90
Aurangabad	1961-1971	-24.61	64.40	55.71	-1.82	-18.29
	1971-1981	5.27	93.15	7.47	-1.92	- 1.29
	1961-1981	-19.34	46.31	67.63	-1.17	-12.77
Parbhani	1961-1971	-21.32	64.43	53.74	-0.95	-17.41
	1971-1981	11.06	58.62	32.39	-0.91	9.89
	1961-1981	-10.26	48.29	60.38	- 2.02	-6.65

contd...

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Bhir	1961-1971	-29.69	70.78	57.12	-1.61	-26.28
	1971-1981	8.94	63.81	29.54	-1.92	8.57
	1961-1981	-20.75	56.96	57.40	0.00	-14.36
Nanded	1961-1971	-25.62	69.97	52.99	-0.82	-21.14
	1971-1981	8.95	63.22	27.67	0.00	9.11
	1961-1981	-16.67	57.05	56.78	-1.29	-12.56
Osmanabad	1961-1971	- 3.06	13.98	90.11	-2.93	-1.16
	1971-1981	- 8.47	66.82	26.18	-1.78	8.77
	1961-1981	5.41	113.45	-8.84	-1.63	-2.98
Buldhana	1961-1971	-13.74	51.01	59.41	-1.60	-8.81
	1971-1981	7.55	48.20	48.74	-2.01	5.06
	1961-1981	- 6.19	41.82	61.76	0.00	-3.58
Akola	1961-1971	-12.85	50.62	57.93	1.49	- 9.98
	1971-1981	4.37	58.86	40.70	-2.99	3.43
Amravati	1961-1971	-12.03	56.32	53.87	0.00	-10.11
	1971-1981	3.14	58.69	38.20	0.00	3.10
	1961-1981	- 8.89	50.65	56.31	0.00	- 6.96

contd..

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Yetmal	1961-1971	-17.80	53.15	57.55	-1.30	-9.37
	1971-1981	7.01	55.79	39.15	0.00	5.06
	1961-1981	-10.79	43.98	65.89	-4.44	-5.43
Wardha	1961-1971	-16.12	57.29	56.00	-1.27	-11.98
	1971-1981	6.32	53.88	40.73	0.00	5.39
	1961-1981	- 9.80	50.95	59.30	-4.23	-6.02
Nagpur	1961-1971	-16.35	62.99	51.94	0.00	-14.90
	1971-1981	1.39	103.76	-3.48	0.00	- 0.27
	1961-1981	-14.96	56.35	57.78	-1.17	-12.96
Bhandra	1961-1971	-17.96	48.07	62.58	-1.57	-9.04
	1971-1981	0.99	221.04	-96.95	-19.09	- 5.00
	1961-1981	-16.97	34.69	72-89	0.00	7.58
Chandrapur	1961-1971	-28.47	63.03	56.68	-1.89	-17.83
	1971-1981	5.59	69.33	26.68	0.00	3.99
	1961-1981	-22.88	54.63	60.81	-2.34	-13.10
PUNJAB	1961-1971	- 4.83	97.61	11.66	1.10	-10.37
	1971-1981	1.91	100.61	0.34	-0.57	-0.38
	1961-1981	- 3.92	90.36	16.74	3.32	-10.42

contd...

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Bhatinda	1961-1971	-7.55	105.83	12.13	1.09	-17.12
	1971-1981	1.20	101.16	0.19	-0.67	-0.67
	1961-1981	-6.35	95.69	13.11	2.42	-11.22
Gurudaspur	1961-1971	-2.63	95.12	14.46	2.59	-11.03
	1971-1981	1.81	106.96	-1.63	-0.80	-4.52
	1961-1981	-0.82	35.53	57.50	14.42	-7.45
Amritsar	1961-1971	-1.85	96.80	4.07	0.00	-0.84
	1971-1981	-1.61	101.27	0.63	-1.21	-0.69
	1961-1981	-0.24	62.05	22.23	18.72	-2.98
Ferozepur	1961-1971	-8.55	97.86	14.31	1.54	-13.85
	1971-1981	2.71	96.99	1.18	-0.55	1.38
	1961-1981	-5.84	88.60	16.27	4.42	-9.20
Jullunder	1961-1971	-2.56	96.22	8.55	1.44	-6.23
	1971-1981	1.67	94.23	2.62	-0.78	1.98
	1961-1981	-0.89	84.46	11.25	8.23	3.94
Ludhiana	1961-1971	-2.16	101.89	-4.13	-0.76	3.01
	1971-1981	2.51	103.84	-0.60	-0.78	-2.46
	1961-1981	0.35	94.85	15.37	-10.53	0.32

contd....

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Kapurthala	1961-1971	-1.82	97.85	4.83	0.74	-3.44
	1971-1981	1.30	98.48	5.19	-1.51	-1.24
	1961-1981	-0.52	77.88	13.45	13.11	-4.42
Hoshiarpur	1961-1971	-10.12	97.54	20.57	0.00	-18.81
	1971-1981	2.13	104.00	-0.35	-1.21	-2.44
	1961-1981	-7.99	89.26	26.89	3.33	-19.48
Patiala	1961-1971	-1.92	95.46	8.51	1.59	-5.54
	1971-1981	2.19	98.72	1.06	-0.89	1.11
	1961-1981	0.27	175.29	-39.42	-27.11	-8.75
Sangrur	1961-1981	-1.92	98.90	13.85	0.00	-12.74
	1971-1981	1.78	101.08	0.29	-0.63	-0.74
	1961-1981	-9.14	95.59	15.70	1.76	-13.05
TAMIL NADU	1961-1971	-16.19	75.23	41.43	-0.95	-15.65
	1971-1981	7.43	73.49	19.59	0.00	6.92
	1961-1981	-8.71	60.71	49.07	-1.73	-9.05
Madras	1961-1971	-1.28	66.88	37.91	0.00	-4.79
	1971-1981	2.05	117.34	-7.19	-4.80	-5.35
	1961-1981	0.77	224.91	-84.16	-15.79	-24.96

contd...

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Chengalpattu	1961-1971	-13.54	82.38	30.72	-0.97	-12.13
	1971-1981	4.91	89.60	8.60	-1.10	2.90
	1961-1981	-8.63	53.10	57.16	0.00	-10.26
North Arcot	1961-1971	-19.01	79.73	40.03	-1.65	-18.11
	1971-1981	7.29	76.10	18.39	-0.99	6.49
	1961-1981	-11.72	62.72	40.00	-1.42	-10.10
South Arcot	1961-1971	-18.40	80.40	39.77	-1.63	-18.54
	1971-1981	9.67	77.96	13.36	0.00	8.68
	1961-1981	-8.73	56.09	55.26	-3.46	-7.89
Selam	1961-1971	-22.87	78.89	43.94	-1.72	-18.11
	1971-1981	9.84	66.33	23.36	0.85	9.46
	1961-1981	-13.73	66.89	46.20	-4.56	-8.53
Coimbatore	1961-1971	-13.70	73.58	37.22	-1.21	-10.10
	1971-1981	8.86	60.85	30.06	1.21	7.87
	1961-1981	4.84	75.65	33.05	-6.89	-2.62
Madurai	1961-1971	-13.61	70.76	43.16	-1.15	-12.78
	1971-1981	10.47	64.45	24.78	0.84	9.93
	1961-1981	-3.14	43.58	68.26	-9.94	-1.90

contd....

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Tiruchirap alli	1961-1971	-17.18	77.63	40.69	-1.80	-16.53
	1971-1981	6.88	77.03	16.53	0.00	6.44
	1961-1981	-10.30	63.77	48.60	-2.99	-9.37
Ramnathapuram	1961-1971	-20.50	71.37	47.79	-1.92	-17.24
	1971-1981	9.57	62.50	27.00	0.95	9.54
	1961-1981	-10.96	61.18	51.68	-5.38	-7.48
Tirunelvali	1961-1971	-14.40	67.36	46.63	-1.21	-12.77
	1971-1981	8.60	67.13	26.80	1.18	7.26
	1961-1981	-5.80	44.63	60.03	0.00	-4.66
Kanniyakumari	1961-1981	-11.46	88.10	28.56	-0.76	-15.91
	1971-1981	1.32	142.80	-28.45	-4.59	-9.76
	1961-1981	-10.14	76.91	40.87	0.86	-18.63
WEST BENGAL	1961-1971	-8.47	50.96	46.17	3.38	0.51
	1971-1981	-1.54	96.02	5.72	2.68	0.95
	1961-1981	-3.46	68.25	38.91	3.86	-11.02
Darjeeling	1961- 1961-1971	-8.47	50.96	46.17	3.38	0.51
	1971-1981	- 1.56	47.97	47.43	6.65	-2.05
	1961-1981	-10.03	51.62	53.93	5.54	-11.09

contd...

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Jalpaiguri	1961-1971	9.15	71.35	26.40	2.75	0.52
	1971-1981	1-13	94.59	17.75	-12.61	0.03
	1961-1981	-8.02	64.75	41.88	7.74	-14.39
Malda	1961-1971	-8.05	91.48	8.89	-0.44	0.07
	1971-1981	2.41	98.67	0.79	0.00	0.54
	1961-1981	-5.64	78.25	33.73	0.97	-12.81
Murshidabad	1961-1971	-3.66	92.09	8.59	-0.76	0.08
	1071-1981	1.87	93.41	4.43	-0.72	2.96
	1961-1981	1.79	80.07	27.62	-1.71	-5.91
Nadia	1961-1971	1.63	88.59	11.44	-0.02	-0.01
	1971-1981	1.28	84.12	10.28	0.00	5.60
	1961-1981	-0.35	76.45	25.66	0.00	-2.12
24 Parganas	1961-1971	-1.10	75.67	22.60	1.96	-0.23
	1971-1981	1.33	100.78	0.85	-1.29	-0.34
	1961-1981	0.23	290.95	-136.62	-27.98	-26.34
Howrah	1961-1971	-1.27	80.31	17.56	2.14	-0.01
	1971-1981	0.76	111.94	-2.54	-4.85	-4.54
	1961-1981	-0.51	2.78	79.70	21.17	-3.67

contd...

(2)	(3)	(4)	(5)	(6)	(7)
1961-1971	-2.69	76.31	23.32	0.44	-0.05
1971-1981	1.40	79.93	19.66	-3.23	3.64
1961-1981	-1.29	61.82	37.59	5.44	-4.85
1961-1971	-0.39	70.07	27.67	2.73	-0.47
1971-1981	1.55	100.95	0.82	-1.54	-0.23
1961-1981	2.35	34.29	64.86	8.82	-7.77
1961-1971	-5.07	85.42	14.87	-0.28	-0.01
1971-1981	1.19	75.53	20.35	0.00	4.11
1961.1981	-3.88	84.86	24.31	-1.21	-7.96
1961-1971	-10.89	80.38	20.47	-1.08	0.23
1971-1981	2.82	91.99	7.43	-1.37	1.94
1961-1981	-9.07	66.00	45.72	1.13	.12.85
1961-1971	-6.32	83.31	16.98	-0.35	0.06
1971-1981	1.60	65.38	30.35	-1.53	5.80
1961-1981	-4.72	84.92	23.27	0.00	-8.19
1961-1971	-28.91	81.94	18.23	-0.26	0.09
1971-1981	4.47	100.20	-0.13	0.00	-0.06
1961-1981	-24.44	68.55	56.49	0.77	-24.28

INSTITUTE OF SOCIAL STUDIES TRUST

TECHNICAL SEMINAR ON
WOMEN'S WORK AND EMPLOYMENT

9-11 April 1982

Domestic Work: Problems and Perspective

by

Vibhuti Patel & Maitreyi Krishnaraj*

*SNDT Women's University, 1 Nathibai Thackersey Road,
Patkar Hal Bldg., 3rd Floor, Bombay-400 020

DOMESTIC WORK: PROBLEM AND PERSPECTIVE

The debate about domestic work, more commonly referred to as 'house work' has been going on in the West for some years and is a live issue of Women's liberation in India, House work as a problem came to be recognised first in studies that showed the double burden of women because they alone performed house work and in the seventies development literature located it within the general area of women's "un-enumerated and unremunerated activities" particulary rural women in the Third World countries. The 1981 census declares 251.90 million women as non- workers.

The problem has been seen as a constraint on women's development a) Women's home responsibilites limit their access to education, employment and responsiblites in public life through curtailing TIME and MOBILITY b) The extra burden of house work plays greater strain and has an adverse effect on women's health c) In the case of professional women, it leads to role- conflicts and the attempt to balance career conmitments and family- commitments places a women in a no- win situation if she places family first, she loses career-rewards; if she places carer first she suffers heavy psychic costs.

The soutions thought of in women's development studies fall in to one or more of the following approaches.

i) The State (and or employer) must step in and help women to particpate in outside employment by taking note of the special burden of women and making concessions for it at the work-place by flexble hours, leave provisions, raising the age of entry, setting up daycare centers for infants etc.

ii) There should be technical improvements to ease housework and work done it home by women, could be made available commercially: procssed food, laundry services, cleaning services etc.

iii) Both Men and Women must share in house work and child care.

Both solutioni) and ii) presuppose a developed economy that can make resources avalable for reducing workhours and providing the services. The has what has enabled women to participate in outside emplement in grater numbers in the West. Solution three requires complete restructuring of sexual-roles and work-structures in the entire society.

All these approaches start with the problem as mainly that of a time-constraint. Women's development studies use time-allocation to show the unequal burden on women and the purpose is to move these activities into the recognition that it is work though not counted and demand policies that will induce this For instance-supply fuel and water through more investment in these. Here the purpose of enumerating these activities is not to remunerate them but reduce the strain by technological improvements. It ignores other dimensions of the problem. Also it by passes the class inequality. Not all the women perform arduous work.

Whatever the ideological frame work, analysis so far points merely to the existence of large chunks of work women perform but the precise nature of work, its qualitative difference from other work, the implications thereby for women and society have yet to be properly studied.

To do this, the problem has to be first identified. What exactly is house work? What are its components? What is the connection between it and the general economy? Why indeed isit a 'problem ' for women?

First of all, with regard to what is housework, the model that most people have in mind is the advanced capitalist society. This is because both the emergence of the 'full-time housewife' as a category and its cognisance if Feminist studies arose in these societies. Jean Gardiner, Susan Himmel Weit, Maureen Mckintosh, Selma Jame, Maria Rosa Dalla Costa are some who have worked in this area.

In an advanced capitalist society, women are housewives and the characterists that make the situation a problem are (a) economic dependence on men b) unpaid nature of work c) isolation. There is the double load if women are also in paid employment.

The answers offered have been a) payment of wages for housework b) moving housework into public producation or commercial sector Wages for hosework raises more problems than it answers. Who will pay? The State or husband? How will it be measured Is the quantity and quality of housework the same for all classes of women? Is the executive's wife, playing hostess doing work equal to the washing- cooking-cleaning drudgery of the working class women? Payment may be useful in reducing the economic dependence of women and may give esteem in an economy where the yardstick of value is cash payment. This approach leaves the problem of isolation untouched and does not analyse the nature of subordination of women.

Assuming the problem to be mainly of 'private' nature, then its resolution would move it into the public sector - either state run welfare services or commercially run agencies. Both exist to a large degree in the advanced capitalist economies, though the welfare services are available only if she is 'single'. State welfare services are usually a flexible category, subject to the "policies" of the ruling party. Unless women have control over policies, what is the guarantee that the State will act in the interests of women? Are we then putting the cart before the horse?

Should all housework be commercialised, the result would be extending commoditisation to all areas of life. If the explanation for exploitation and oppression stem from the nature of capitalism, then this approach will only deepen and intensify these oppressions.

The basic problems connected with domestic work (ignoring the other equally fundamental issues of analysing it in the not yet fully capitalist societies) in the advanced capitalist society are the problems of control (or autonomy) reward and equality between the sexes.

The autonomy of women's work within the house depends on the terms and conditions under which it is performed. In corporate capitalism, the family is in a sub-contractual relationship to the corporate economic structure. Women's work is then not that of an independent agent but producing the material as well as emotional concomitants necessary to maintain the relations of the external order

A possible solution is in women handling their domestic work by their own collectives. (3). This retains the sexual division of labour and does not fully meet the needs of women to have access to other resources of the society. If we perceive sexual division of labour as the crux of the problem, this does not resolve the problem. In addition, in less developed countries which are rural and agricultural economics, with less urbanisation, and fewer persons (men and women) in the wage-sector and sizeable sections of the people in the non-wage sector, these analyses do not hold good. Here women do share tasks of other women, with extended family members or caste exchange services, right from Africa to Asia. (3). Empirical studies on rural women also confirm how many tasks are shared not on sexlines but along agelines. (4). The problem in these economies is neither so much "isolation" nor "undervaluation" unlike in the domestic work within the nuclear family unit of an advanced capitalist economy. The major task before us is a clear identification of the category 'housework'.

In many underdeveloped economies, the household is still a production unit and retains many characteristics of this type of production along with commodity production. Does the notion of "unpaid" work then helps us distinguish what is "housework"? In a society, not as yet completely dominated by exchange-value, agriculture, fishing, dairying, crafts are often household based. There is a lot of confusion in using the terms "domestic work" "housework etc. A begining can be made by identifying sexual division of labour in relation to different types of work in such economies.(5). To date we have no adequate explanation of why women alone do "domestic work".(6), and why it should load to subordination. It is taken for granted when non-commodity production/many previously female task are taken over by men but the sexual division of labour for the hardcore non-agricultural work within the house, what we notionally regard as purely domestic tasks i.e. cooking, cleaning, washing clothes, care of the old and sick, care of the children, remains rigid. It follows that the social institution of the household must be seen not as defined in terms of a unit of domestic labour, but as derived from it. The sexual division of labour within the home and outside the home has to be seen with reference to the structure of the household. The household (the smallest coresidential unit) is constituted on the basis of the relations under which women perform "domestic labour". There are two sets of relations both mediated through the household.

transforms into commodity production

a) marriage-kinship, residence rules which control performance of domestic labour and which exclude women from social production,

b) relations that govern performance and control of agricultural and other social labour.

These two sets of relations are mutually determining though there are changes in marriage ties as between different societies.

Housework as a labour process was and is a necessary condition for human existence but with the advent of capitalism what began to be counted as valuable was only what was marketed. Hence the attention of feminists in the West on trying to 'value' it.

III

Sociolist-Feminists have tried to see the interconnection between women's work and the economic order. The major debate has been on how one can show 'domestic work' as productive or how it can be shown as surplus-value creating for the capitalist and the male wage earner in the family by using Marxist analytical categories in order to show that women are "exploited".

Women produce people, who produce everything else, (7), but definitionally 'productive labour' does not include work that results in useful effect but that which has a specific relation to capital. A way out is suggested by introducing the concept of Patriarchy to denote the hierarchical relationship between the sexes. Patriarchy implies control of males over the three inter-related elements of women's work, namely sexuality, fertility and domestic work. Ordinarily even in Marxist theory 'reproduction' of the working class takes place in the family and is treated as a separate category and not analysed further. According to the approach that tries to integrate notions of Patriarchy and the economic system (8), the work of women within the family may be termed 'subsistence production' and this would include all three aspects sexuality, fertility and domestic labour. This work is done under relations of Patriarchy on the one hand and the capitalist system on the other hand in to-days world of a global capitalist system. What goes into the domestic work" will change, but the connection between it and the external order is retained. The global capitalist system 'uses' the subsistence for accumulation in many ways (a) the wage labour is paid one wage but it buys the labour of two (his labour and his wife's domestic labour), (b) paying the wage labourer less than subsistence requirements because the wife cultivates the family farm to provide food for the family, (c) using women's cheaper labour in household industry while keeping men in the wage/factory sector. According to this analysis, the "subsistence" mode of production is part and parcel of capitalist production and is mediated by Patriarchy.

While this much is accepted, what is more controversial is the claim that women's labour (including sexuality-procreation-domestic labour) produces "surplus-value". One objection is that is is no more than a terminological wizardry. (9). Alternately, there is the more conventional Marxist view that these laboured exercises on the materialist base for patriarchy are unnecessary. The abolition of the capitalist production will not automatically eliminatehousework, though it provides a precondition, because socialism is not created by mere transfer of ownership of products but must transform the process of work and daily life.(10). This will apply equally to establishing equality between men and women. Patriarchy may persist not because it has a material base but because consciousness and values change more slowly than relations of production. This is the explanation given for retention of sexual division of labour, female subordination and retention of domestic work by women in the post-revolutionary societies. In such societies in planning the allocation of resources no heed is paid to women's needs be it contraception, domestic work or other issues.

An advantage of seeing housework within patriarchal relations and the economy, as 'subsistence production' linked to 'extended'

production' permits us to see the historical changes in the nature and composition of the two. The 'precapitalist' mode such as household production then can be seen not as precapitalist but part of the international capitalist system. Capitalism uses household based production e.g. in many industries the unorganised sector form is used, or the put-out system is used.(11). This is what Maria Meis calls house-wifisation of production.

The major problem regarding housework/domestic labour is not measurement but first to isolate it as an analytical category. Empirical studies need to be done to show the differences in composition and quality as between different societies. What is clear is that establishing equality needs focus on both sexual division of labour and relations of production. Recent studies in development, though using time allocation method, bring out the nature and extent of work done by women outside the accepted production sector (12). This is a begining step for more work that needs to be done.

REFERENCES

1 Federici, Silvia "Wages against House Work" Falling Press Ltd. 1979.

2 Banaji, Rohini "Women and Social Reproduction - A Perspective for Worker's Control" Unpublished paper. National Conference on Perspective for Women's Liberation Movement, Bombay, Nov.'80.

3 M llings Lerth. Women and Economic Change in Africa (unpublished) Yale University.

Lornitz, Laruvisa, (Mexico).

"The Role of Women in an Informal Economy" (Unpublished).

4 Randive, Jyoti "Impact of Urbanisation on Wagholi Women" an ICSSR research project by Research Unit on Women's Studies, SNDT Women's University, 1980.

5 Mckintosh, Maureen. "Domestic Labour and the Household" Unpublished Seminar Paper, Feb. 1978.

6 Leacock, Eleanor "Women's Status in Egalitarian Society". Implications for Social Evolution". Current Anthropology. Vol. 19 No. 2, June 1978.

7 Dhara, Lalita "Women's Oppression: A Historical Material Perspective (unpublished) National Conference on Perspective for Women's Liberation Movement, Bombay, Nov. 1980.

8 Esenstein, Zella. Capitalist Patriarchy and the Case for Socialist Feminism.

9 Menon, Usha "Women and Household Labour" Unpublished-1981.

10 Braverman, Harry: Labour and Monopoly Capital Monthly Review Press New York.

11 Meis, Maria: "Housewives Produce for the Market, Lacemakers of Narsapur". Working paper, ILO, Geneva-1980.

12 Institute of Development Studies, Sussex, England & ICSSR WP Women and Rural Development-1978.

INSTITUTE OF SOCIAL STUDIES TRUST

Technical Seminar on
Women's Work and Employment
9-11 April 1982

Women's Work and Employment Belonging to Special Categories (Scheduled Caste & Scheduled Tribes)

K Dutt*

*Planning Commission, Yojana Bhavan, New Delhi

Indian women and their status in socio-economic sphere have been dealt by a number of scholars but very few studies are available which have analysed in depth the status of scheduled caste and tribal women in the Indian milieu as such and in circumscribed society in which they function. The word circumscribed here has been deliberately used since these women are part of that population who are victim of Hindu caste and economic system on one hand and abject poverty on the other hand and which prevents them any social mobility except in rare cases. The problems of scheduled caste/tribes have been studied both by official agencies and academic circles. However, peculiar problems the women amongst them face hardly received careful attention. The reasons are may guess are : (a) lack of interest till now and (b) paucity of sufficient statistical information on these women.

2. Apart from the total female population figures of these categories and occupational break-up for working population, and literacy rates there is not much information on other aspects like their per capita income, ownership of land and other assets, their contribution to the families' income etc. Whatever data is available in the Census Reports are far from helpful to gauge the status of these women in their own society as well as in the general population.

3. The following table gives the available statistics regarding population, and occupational break-up. An examination of Census data for 1971 (1981 Census Special Tables for SC/STs are not yet available) show the following broad categorisation of working population amongst SC/ST and proportion of women among them :

A.

	Sch. Castes			Sch. Tribes		
	M	F	Total	M	F	Total
Total population (in lakhs)	413	386	749	142	182	374

B. Occupational break-up and percentages

	Scheduled Castes				Scheduled Tribes			
	Male		Female		Male		Female	
	Total workers	%age	Total workers	%age	Total Workers	%age	Total Workers	%age
Cultivators	71.52	32	9.50	14	67.50	63	16.69	
Agri. Labourers	102.32	46	48.13	72	29.20	27	19.13	49
Livestock/ Forestry/ Fishing	5.07	2	1.24	2	2.49	2	0.94	
Mining & Querrying	1.58	0.7	0.29	0.4	0.65	0.6	0.24	
Manufacturing, processing etc.								
a) Household Ind.	7.65	3	2.02	3	0.99	0.9	0.52	
b) Other hand house-hold industries	9.02	4	1.32	2	1.28	1.2	0.33	
Construction	3.08	1	0.43	0.6	0.46	0.4	0.13	
Trade & Commerce	3.37	1.5	0.48	0.7	0.65	0.6	0.22	
Transport & Storage	4.68	2	0.32	0.5	0.76	0.6	0.08	
Other Services	15.20	7	3.49	5	3.18	3	0.79	
	223.49		67.22		107.16		39.07	

Most significant point to be noted is that among SC and ST workers, while cultivation as occupation is shown for 32% male among SC and 62% STs, for women corresponding figures are 43% and 14%, More interesting are figures for agriculture labour for SC/ST families: males are 46% and 27% respectively., for women among them figures are 72% and 49%. These two sets of figures for cultivators and agricultural labour is an indication of status of women among SC and STs although the percentage for tribal women is slightly better than Scs. In other occupations other than agriculture based, show that in household industry while percentage of SC males and females are same (i.e. 3%) among tribals the women have higher percentage than men i.e. 1.3% as compared to 0.9 % for latter.

4. Available Educational statistics on these women are as follows:

	Schedule Castes			Scheduled Tribes		
	Male	Female	Total	Male	Female	Total
1. Population ('71 Census) (in lakhs)	413	386	799	192	182	374
2. Literacy Rate ('71 Census) incl. 0-4 age group	22.4	6.4	14.7	17.6	4.9	11.3
3. Enrolment Ratio 78-79 Primary Stage (Classes I - V)	102.9	55.7	79.9	89.3	43.4	66.4
Middle stage Cl. I - VIII	37.9	14.5	26.5	25.6	10.0	17.9
4. Wastage rate at Primary Stage from Classes I to Classes V) '76-77			66.5			79.8

The female literacy rate of scheduled castes and scheduled tribes continued to be miserbly low as compared to the general female literacy rate which was 18.64 in 1971. In the North-eastern regions, however,

literacy rates of tribal women are as high as 60% among Mizos, 22.79% in Meghalaya and 17.68% in Nagaland. These tribal women are far more emancipated than Indian women in general. On the enrolment ratio, enrolment of girls of scheduled castes/tribes in Classes I to V is much lower than the boys of these communities. While at the Middle school the ratio plunges further down as compared to their male peers in these communities. At High-School level SC girls enrolment is 1.4 % and at graduate level it is only 0.40%. The percentage of tribal enrolment for girls at High School and Graduate level are 0.48% and 0.13% only. The wast age rates for girls of these communities has not been worked out . These figures are an eloquent indication of their educational status notwithstanding a handful of women politicians or a few women holding white -collar jobs.

5. Taking up the economic activities of scheduled castes and tribal women, large majority as noted earlier are occupied with cultivation but mostly as agricultural labourers. All the back-breaking work in agriculture like weeding, hoeing, transplanting, harvesting, winnowing etc. are done by women while men engaged in preparing the land and working of system to irrigate it. In fact the amount of labour which these women put in, in agriculture is as much if not more than the men. This, however, does not entitle them for equal wages whether in cash or in kind. On top of this, the system of providing domestic labour to landlords free by these women is seldom counted in the wages. Therefore, their share of input in agricultural field is never computed fairly.

6. Apart from agriculture labour next important occupation is animal husbandry. The participation of both men and women belonging to scheduled castes and tribes is almost equal percentage-wise. However, what such figures do not show are actual quantum of work put in by men and women. In tending cattle for example it is the women who go for forraging for grass, caring for animals, collection of cowdung, preparation of cowdung cakes for fuel, milking animals, carrying milk to the market, etc. It is not that men are not engaged in these activities but it is often that women are required to do this job while men go to the fields for ploughing etc. Similarly, in poultry keeping also women take more active part. However, it is unlikely that income accruing from such activity is available to the women alone at their disposal unless they happen to be widows and heading the families. In case of household industries such as basket making and mat-weaving, making leaf-plates (pattals) or weaving cloth, as the tribals of North-east do, women take it up as subsidiary or primary occupation but their produce often is sold at nominal price to the middlemen and the income they get goes for family maintenance. In the tribal areas it is mostly the women who go to the forests for collection of mior forest produce and carry them to the 'Hats' for selling.

7. In the organised industries except those based on agriculture like tea and coffee plantations or forest based like Beedi rolling, women of scheduled castes and scheduled tribes do not appear to be participating. In pharmaceutical, textile, telephone or other industries which employ a large number of women workers, it is not known if SC/ST women are at all employed. Even if these industries do employ these women their number is likely to be negligible since most of these women are in rural areas and also they lack minimum educational qualifications to get in. There is no data at all as to the number of schedule caste/tribal women who are working in factories in various industries in urban areas. However, the exception seems to be construction industry where these women when recruited do as much hard work as men but hardly receive equal wages .

8. Taking up the status of women in these communities in their families they seldom have higher status than men unless it is a matriarchal society as amongst Khasis and Caros in Meghalaya. For scheduled caste women drudgery begins before they have even lost their milk-teeth. It is they who are entrusted to look after their younger sibblings, start working as child wage - earners at 8 years of age and continue to do so till they die in addition to their burden of child birth, rearing them, cooking, cleaning and other sundry chores for the family. In the tribal society, however, tribal women have slightly better status than scheduled castes since they have at least the right to select their husbands as well as divorce them and in matriarchal societies it is the women who are the owner of property.

9. Their status in their own societies happen to be lower except in case of again the matriarchal tribes. But their status in the Indian society at large is the lowest possible. The scheduled caste women are victims of their own innocence and lack of inhibitions and are exploited by non-tribal men being inducted into prostitution in the urban areas. In any of the disputes in the rural areas where anti Harijan or anti tribal feeling raise their heads from time to time, it is women of these communities who pay the price by being raped or often burnt alive as and when the men want.

10. This, in brief, is a sketch of the position of these women. It is necessarily generalised since as mentioned earlier, detailed information on them is very scanty. In view of this, formulating development programmes for scheduled castes and tribal women become quite difficult. This is particularly so at the state/national level. There are, therefore, no specific programmes focussed on them. It is usually as a group or as a family that development schemes are being formulated. Even under Integrated Rural Development which is beneficiary oriented programme, information is not available as to how many women of scheduled caste and tribes got assistance. It is seldom that

development programmes are formulated with any imagination and innovation for scheduled caste and scheduled tribe women. The planners come up with small schemes like opening training-cum production centres, where some sewing and knitting lessons are given and some maternity and health centres are started.

11. No worthwhile economic schemes are framed keeping in mind the actual needs and talents of scheduled caste and tribal women. So far only two programmes are being implemented specifically for these women, one under special welfare, i.e., ICDS and other under Backward Classes Sector of girls hostels. Most of the schemes are carelessly conceived without taking into consideration the social handicaps these women have. For example while educational incentives like scholarships, stipends, books, uniforms, stationery etc. are given to both boys and girls of these communities, the parents often hold back the girls from going to school as they are required at home to attend to the smaller children and other household chores. Therefore, inspite of educational incentives, drop-out rates amongst girls are higher at every educational level. To check this at the very beginning of schooling, attaching a creche with primary schools could have been thought of where girls could keep an eye on the smaller sibblings as well as attend to their classes. In the economic sphere where giving training in some of the crafts or providing them with silk cocoons to rear, the problem of marketing or giving them further training is not always thought of.

12. One may conclude by stating that unless sufficient data is available on the problems faced by the scheduled castes/tribal women, the developmental efforts for them will be futile. More in-depth studies on various aspects of their socio economic life has to be taken up by researchers so as to assist planning at every level. It is also necessary to have a better understanding of the needs of these women to formulate the required schemes. Another important aspect is educating field-staff in not only understanding the problems faced by these women but also to correctly interpret the needs and compile information which will be useful in framing specific schemes.

Methodology for Valuating Women's Contribution to Economic Activities Under Conditions of Irregular and Uncertain Participation

by
Prof. S. Ramachandran*

*Ramnarain Ruia College, Matunga, Bombay-400 019

INTRODUCTION

Recently much attention is being focussed on 'Women and their work' in the area of women studies. The various aspects which are being covered are women and supply of labour, female work force i.e. work participation rate, sex discrimination in wage payment, women specificity of industries, exploitation of women workers etc. All the above referred to areas of women studies are relevant to developed and developing countries. However, there are certain field of women and work study which are of great significance to a developing society and which is yet to be examined. One such aspect of women and work is the 'Methodology for measuring women's contribution in ad-hoc and irregular work'. Women's contribution through ad-hoc and irregular work to GNP of a developing country is not so insignificant as to be ignored. Their contribution has significance on more than one ground - One is the need to evaluate their contribution to GNP, secondly their contribution to general welfare which is difficult to measure through measuring rod of money and thirdly to examine the scope for improving the efficiency of women in ad-hoc work and irregular work.

National income, its size and growth rate is one of the prime indicators of economic development of a country. National income figures measure the sectoral contribution - but do not present contribution to GNP by Sex. It is true that work participation rate is a sufficient indication of male and female contribution to National product. However, the odd jobs done by women for income does not result in enumerating them as engaged in main activity or secondary activity either on full or part-time basis. Women who are engaged in irregular and ad-hoc jobs do not figure in female labour force.

Description of ad-hoc and irregular work

A close study of time disposal of women especially belonging to low income group, will show that women devote their time to income earning activity, which have

no regularity in terms of income, availability or type. The remuneration is normally on piece rate basis. Yet another distinctive feature is, the absence of contract of any type. The rate of payment and other basic contractual content of the work is invariably an oral one. All such work performed by women are described as informal sector. The work done here is very similar to what they do for their own house-hold, for instance stitching buttons on ready made garments, rolling papads, washing clothes, utensils etc. "The boundry line between women's wage labour in the informal sector and unpaid household and community tasks is tenous".(1) The women workers who earn salaries are considered economically active, but women in informal sector are not considered as economically active and though they are paid for their work, it is not included in GNP. In Section II a brief description of various types of informal activity performed by women is given.

The emergence of the informal labour sector

The very process of economic development is the cause of emergence of such a sector. Women's condition of work and other aspects of certain informal activity had been discussed at a conference in 1899 in London (2) This points to the fact that during the period of industralisation labour is displaced from agriculture and this labour migrates to city in search of jobs and until it finds a job, or until industralial growth absorbs all this displace labour, labour engages itself in petty trade and other informal activities, for which there is growing demand with urbanisation. This informal labour sector is therefore considered as a bridge between modern and traditional sector. Women labour also gets absorbed in informal

---

(1) Laurdes Arzpe -"Women in the informal sectro: The case study of Mexicoloty" women & development P.36

(2) The International Congress of women 1899 - "Women in industrial life" Countess of Aberdeen, T.Fisher Unwin, London.

sector. Hence most of the studies on women and work, done in industrial countries deals with wage discrimiatuion and job discrimination on the basis of sex. However, the situation in third world developing countries is different. Due to the historical factors like colonial exploitation, the domination of the economy by capitalist economies, and the consequent distorted emphais in plan investment allocation, coupled with high rate of population growth, the informal sector is expanding. In fact, in developing countries large section of male labour force also is in this sector, making it quite difficult for women to get work in formal sector. Tradition, cultural bias against women, family and social factor, works against women and in favour of men who are still the main bread-winner of the family. Women are actually entering the field deserted by men. Very petty trade is now virtually all female activity.

Second factor which has expanded this area of informal work for women, is the migration of male labour to cities for jobs in organised sector big or small. Women who were engaged in family based work like agriculture or crafts, find themselves displaced from their traditional work. This work force in urban areas finds itself working in informal sector. Due to the development forces, resulting in demise of certain rural traditional occupation and activity and population growth gives rise i.e informal labour sector in rural area. Gunner Mydral observes "The excess population (which in a system operated by peasant lives in the family farm) shows itself in domestic service, trading and other casual jobs". (3)

The informal labour is the marginal labour force, ready to work at any lev l of remuneration. This marginal population waiting to enter the formal occupational sector, sruvives by low income intermittant wage or self employment. In other words workers are pushed into informal labour sector and into the services as a result of insufficient demand in the manufacturing sector, and they are destined never to leave them". (4).

---

(3) Gunnar Mydral - Asian Drama
New York Twentieth Century Fund 1968
P.2042

(4) Leurdes Anzpe -Opcit, P.27

However, it would be more appropriate to say that, women in tradition bound countries, in countries where large section live in slums, where family size is large, women are tied down to informal labour sector, Their socio economic and environmental conditions do not permit large section of women to enter the formal labour market.

Hence any study of this sector should attempt not only to measure their contribution to GNP but also to discuss and devise measures and take steps to improve their productivity and improve their earnigs by reducing the exploitative element. In the present frame work of this paper, it is important to note that non inclusion of women's contribution to GNP not only results in under estimation of GNP, and ignoring the role of women in development, but does not recognise the need to improve the tools and equipments used by women and improve their labour productivity. Most of the activities in which women are engaged are performed with traditional tools and equipments. In number of cases observed by the writer this statement is confirmed. In making papads or in preparing eatables women use the same traditional tools and equipments.

In the studies on wage differential it was found that the major cause of wage differential in industrialised economies was not sex discrimination. The major explanation is to be found in discrimination in investment on female education and training(5). In similar vein we can say that, low earnings in informal sector will make mothers neglect their female children's educationa & training which will ensure the supply of labour for informal labour sector.

II

In this section a brief description of few informal economic activities is given. A first hand information on different aspects of the informal female labour force was gathered during the following two studies -(1) Unorganised women workers in Bombay slums - a pilot study and (2) Economic activities in voluntary women's organisation. Prof. Mrs. C.K. Dalaya Head of Economics Department of

---

(5) Observed by Victor R. Fuchs -Recent "Trends and long run prospects for female earnings" American Economic Review 1974.

Ramnarain Ruia College -Bombay conducted there studies which were sponsored by Research Unit on Women's Studies-SNDT Women's Univesity -Bombay. We could identify a number of intermittant and ad-hoc productive activity in which women from slum and women from lower middle class were engaged in. In addition during our rural development camps we could identify two or three activities of informal nature in rural areas.

Urban informal sector -Slums

Vegetable and fish vendors -Some women living in a slum bring head load of vegetables and fish from a whole-sale market or some nearby bigger markets and sell the same by setting themselves up on the sides of the main road or galli of the slum. Some salient features of this trade are,1)women normally sell vegetables etc. which are not fresh,damaged and also partly rotten. 2)The investment required is a small amount,around Rs.10 to 20. Their men-folk provide this initial capital. 3)The customers are from the same locality i.e.those who are not in a position to pay good prices. It is a all female labour market, 4)The sales slacken down by the third week of the month. During the last part of the month they hardly make any net returns, 5)Most of them do not make any net returns at all. The reason for their continuation in this trade is - the unsold stock is used for home consumption,which means they save the expenses on buying vegetables or fish, 6) There is keen competition. Large number of women enter this field and sit very close to one another on the side of the road. It confoms to the requirements of a perfect market, 7) On an average they earn around Rs.75/- per month by putting in labour of 6 to 8 Hrs. a day, 8)The income from this activity is to supplement family income and for the education of children.

Bidi rolling and bidi-leaves trimming :- Leaves in which bidi's are rolled are supplied by the manufacturers of bidis. The women have to go once in 2 or 3 days to collect the leaves from the supplier,and after doing the work,have to deliver the same to the supplier. It is same with bidi rolling. In this work home is turned into workshop. The distinctive features of this informal work are,(i) Other family members also lend a helping hand, (ii) The earning

is about Rs.2/- a day (iii) Womeb belong to a particular community hailing from Hyderabad region in Andhra Pradesh,(iv) Duration of work was from 6 to 8 Hrs. (v) Women were illiterate and had gained a good degree of dexterity in work.

Rolling Papad - is yetanother expanding area of informal work participation by women in slum. Very well known processors,with international market,provide this work to women in slum. Here too, family members like young children render a helping hand. The earnings here too are between Rs.2 to Rs.3 a day on an average. The dough has to be brought from a particular place and rolled papad after drying them has to be returned to the organisation.

Other Carry Home Work Embroidery,sewing buttons on ready-made garmets and such simple needle work are also farmed out to women as carry home work. In a city large variety of such carry home work is to be found. Even manufacturers of sophiecated consumer goods like transistor manufacturers farm out some work to young girls to be done at home.

Some economic implications of such home work are (i) the workers arekept atomised. They do not come in to contact with one another and there is no scope for united action demanding higher remuneration,(ii)Piece wages are paid hence all expenses and trouble of supervising work and monitoring the work are spared,(iii)Lower remuneration results in lower cost of products and so consumer is the receipent of consumer surplus,(iv)The work giver saves on various over head cost viz.shop rent, worker facilities like drinking water,toilet,lighting expenses. These capital costs which are actually borne by the female workers is not accounted for while paying remuneration to workers,(v)Being piece wage the rate of exploitation is High.

Apart from these economic implications there are also other shortcomings like -in order to earn more, women overstrain themselves by working into late hours of the night under poor lighting conditions and by turning home into work-shop,the quality of home life is affected adversely.

Rag picking, collecting old clothes and old glass bottles. These women are an important agent in coverting city wastes into values. They work practically 12 hours of the day and our study revealed that the earnings of waste paper pieces collectors from streets, had higher earnings compared to domestic-workers or bidi rollers or other category of women workers. But these women mainly belonged to depressed castes. There is caste specification in the work performed in informal sector by women. Women engaged in exchange of old clothes for utensils belonged to weaver community and so prefer this allied activity of dealing in clothes to domestic service.

Domestic work on part-time basis is another activity in which women from slum areas are engaged. The wages include kind wages too. The advantage in this type of work is women workers get monetary help in the form of loan and used clothes as gratis. The earnigs here range from Rs.25 to Rs.100 depending on the number of homes in which they work and duration of work.

Work in 'Mahila Mandals': Voluntary women's organisation undertake some economic activities in order to provide work and income to needy women . Our study revealed that the women's organisations take this programme as a part of their welfare activity and secondly the women benificieries are from a particular locality, normally not from slums and the women benificieries belong to lower middle income group. Women have to work in the premises of Mahila Mandals. The work is provided by industrial organisations and the nature of work normally is packing, making some articles which are used in factories like hand gloves, napkins, dusters, pin cushions, files etc. The Mahila Mandals also undertake preparing eatables and masalas and the customers are normally working house-wives of the same locality in which the Mahila Mandal is situated. The rates of payment on piece rate basis are normally fixed by the supplier of work. Here again the women are not able to make more tham Rs.60 to 80 for nearly 8 Hrs. of work. The women workers do get some additional facilities like creche, after-noon tea, gifts during festivals etc. However, these are not provided by the firms giving purchase order work but is given by the Mahila Mandal out of their welfare fund. The women get work not on regular basis. Only when Mahila Mandals get orders, women get work.

Rural areas : Women from tribal households are engaged in preparing grass bottle covers. The trader provides them with raw material in suitable form. The women have to string

the straw into a form of circular cover for the bottles. They are paid Rs.2/- for hundred covers. By enlisting the labour of other members in the household the women is able to make about Rs.2/- a day by putting in long hours of work. The trader collects the finished product. He also supplies the raw material at the residence of the workers. There is no regularity in the availability of work, though there is not much delay in making payment for the work done. The women were not even aware about the end use of the product they were making, nor the rate at which the trader sold them to the bottling firms. Even strings for stringing the straw was supplied. The women had no opportunity of coming together while collecting or delivering the material.

Basket making :- The women wove baskets from bamboo strips, for packing fruits. This particular region is well known for the production of a fruit called "Chikoo". The trader here too provided raw material, but invariably he sells the bamboo sticks to the women who belonged to a particular tribal community. The finished product was also sold to traders. Women of the household jointly were able to make Rs.4/- to 6/- on an average 1 or 2 women and men in their spare time participated in this activity.

However, except in rural areas close to a city area, or in cash crop area, there is very limited scope for participating in informal labour market.

The brief sketch of various economic activity in which women are engaged, shows that this sector lacks built in system of incentives and scope for improvement of skill.

Apart from the women from slum and rural areas and low income group, women from middle income group also participate in some income earning activity of ad-hoc nature; like coaching school children during examination time, tailoring work, running short courses at home in 'cooking' flower arrangement, yoga, baking, baby sitting etc. With women taking up regular salaried employment the scope for such activity is increasing.

The foregoing brief description of the ad-hoc and intermittant work done by women, bring out certain aspect of this labour market. The women in general are not the main bread winners hence the utility of their income is not very high, yet the paradox is that they do not place high value on their leisure. Leisure is not yet a commodity for consumption. The women having no other alternative

suitable avenue of work are ready to take up work even at a low remuneration and hence their labour supply function is at a low level. The study referred to earlier also revealed that majority of the women engaged in these activities were not dissatisfied with their level of earnings. This also contributed towards keeping the labour supply function at a low level.

Some of the salient features to be reckoned are:-

(i)Earning are utilised for enhancing the consumption of necessaries and for education. The income is rarely spent on entertainment. Men folk waste their income on drinks, which is to an extent compensated by the women's earnings. The welfare component of women's participation in informal labour force is quite significant.

(ii) In some activities monopsony element is present which results in undervaluing the work done by women.

(iii) There is little discrimination of any kind observed. The employer of such labour of women are taking advantage of a particular socio economic situation.

(iv) women are not dissatisfied with their earnings. Here the adage 'ignorance is bliss' proves true. Being supplementary income,they are not discontented with their earnings.

(v) Again socio economic background,and the nature of the job,rules out any type of unionisation and demand for better remuneration.

(vi) Number of products in whose production women are engaged in are available cheap to the consumer,thus increasing the amount of consumer surplus.

<u>The need for measuring the contribution of women in irregular and intermittant work</u>

Contribution of women workers in informal sector is a significant proportion of national income. Exclusion of these women workers contribution to National Product results in underestimation of the National Income figure. Attempt to measure the contribution of women workers in informal sector,will result in estimating the female work participation rate. Moreover,an increase in the number of women engaged in these activities is a clear indication of failure of development plans,in creating adequate jobs for women.

The estimation of female work force in the informal work and at the same time listing the various types of work in which women are engaged will bring into clear relief the condition and changing condition of women in developing countries.

Such an acknowledgement of work done by female work force will induce formulation of suitable policies and measures to ameliorate the conditions of women workers. For instance, organising the women doing different type of informal work.

Non-valuation: If women's contribution in various informal work is not measured, then there will not be any efforts made by voluntary agencies or Government to make improvements in their productivity, or device tools and implements to improve efficiency and income.

Women's income are mainly used for satisfying family needs and for children's education. Satisfaction of food need or education adds to the family welfare. By not measuring her work & earning, women's contribution to human capital formation remains unaccounted. In a developing society, the items on which women worker spend their time is crucial to the process of growth and development. If their efficiency and income is improved, it will result better work force as well as the depressed strata, will get a bettwer share in National Income.

Under or Non-valuation

On the basis of the study mentioned earlier, it is observed that informal sector grows or is created by the manufacturers by segmentation of labour market. Skilled workers are, workers at assembling stage or at final point and are under one unit. These workers work with heavy capital and their earnings are high and are well organised. The second segment is one which needs little less skill and direct supervision by the producer of final products. There is a vertical disintegration of production and the intermediate products or components are produced in another unit, working with less sopisticated capital than in the former one, and organised as a small scale unit. There the workers get less wages than in former one. The third segment, is in the peripheri stage of production or the component whose production requires least amount of skill and capital investment, like wrapping and packing of finished products. These activities are farmed out to voluntary women's organisation or cooperatives formed by women labourers. This sector has significant size of women workers. The amount of work given is not regular and there is no wage scales or other benefits as in organised units. The remuneration earned by women in this market is less than the going minimum wage rate. The value added by production of soap is shown as contribution by the big parent unit, and as far as our knowledge goes, there is no attempt to measure the contribution by women workers by these parent organisation.

III

Methodology for measuring the contribution of women workers in informal labour sector.

The description of women working in informal sector indicates the extent and nature of undervaluation and non-valuation of the work performed by women in this labour sector. These women are not enumerated as female workers - part of full-time - in the census. Census of India 1971 classified workers by their main activity and secondary activity. If a person's main activity is attending to household duties, also engages oneself in some other economic activity such as helping in family cultivation or preparing cowdung cakes for sale etc., that economic activity will be covered as secondary work. Secondary work is listed for all who are entered as workers or non-workers under main activity. A number of unpaid family workers participating in the household enterprises, who might have returned themselves mainly as household student or returned under the question of worker or non-worker for their main activity are netted here for their economic activity. All the women who are entered as workers in their secondary activity are measured and their work duration and intensity is ascertained then it is possible to use this data for evaluating contribution by women workers. A sample study of different subsidiary work by women to arrive at the average figures could be the measuring rod of the contribution of women workers. However, the census takes note of subsidiary activities which are regular in nature. It does not include the ad-hoc and irregular work done by women in particular and all engaged in informal sector in general. Further, Final Report of National Income Committee-February 1954 , notes that "the social system creats difficulties in the enumeration of women workers, as many people feel shy in recording their wives as workers for reasons of prestige" (6). The situation has not changed much since the last three decades. For reasons, other than social, women are not recorded as workers. This factor of under recording or non-recording makes census data not of much help in estimating the contribution of female labour in irregular jobs. All the category of work done

---

(6) Final Report of National Commission on Census, February 1954.

by women in informal labour market does not go unrecorded. Work like bamboo basket making, grass bottle cover making, or in urban areas bidi rolling, sewing buttons etc. on ready made garments, may get recorded as secondary activity by women. However, while valuing this work, the absence of an appropriate yard stick is noted. Each of these activities need to be given values. The earnings or wages or rates of remuneration paid bay be under valuation of their contribution to production, because of the presence of monopsony element in the purchase of goods made by women or monopsony element in the purchase of labour of women in informal sector. The goods which have export market fetch good foreign exchange. Labour engaged in the production of such goods have to be valued by an appropriate shadow price.

Women working in their homes incur costs, some measurable in terms of money and some not measurable with money yard stick. Yet all these costs needs to be accounted for while valuing the work done by women. We have also noted that women's income are spent on family consumption and investment on education. Such allocation of earnings result in long term gain to society. It is a contribution to National welfare, which rarely figures in the GNP of a country All the various dimensions of women's earnings, make it difficult to apply a single technique of measuring it. Job evaluation, census enumeration, sample surveys, will have to be combined to arrive at an approximate figure of contribution by women.

Existing Secondary Sources of Data

As pointed out earlier census classified workers on the basis of main and secondary activity. Women who show

their main activity as household, are shown as having secondary activity if they are engaged in one. However, the figures do not indicate the duration per week or per day of this activity. Hence it is not possible to use these figures to arrive at any epproxinate value of contribution by women in informal sector. If one has to make a start with such a task, then an average value of work per person has to be imputed and calculation of women's contribution by arithmatic processes is possible. Yet such figures would be rough indicators of the work contribution by women in irregular and ad-hoc work to GNP. However, the scope for using the NSS reports has been looked into.

N.S.S. 32nd round - Employment and unemployment survey was examined to find the scope for using the data for measuring the women's contribution in irregular economic activity. This NSS round report considers a person as employed if he had worked even for one hour each day during a reference period and if working for one hour and less than 4 hours then he was considered as working for half a day and if a person worked for 4 hours or more then he was considered as working for full day. Though this information is available sexwise it it not of much help in our present problem to classify the women workers on the basis of their nature of employment. However, this 32nd round only suggests that a similar survey - cover the women working in informal labour market will be a feasible proposition.

NSS 25th round* presents data relating to monthly expenditure per household, annual receipt class in rupees of small cultivator household and wage earners household (weaker section). The monthly expenditure of the household when multiplied by 12 give annual expenditure which is to be compared with the annual receipt of the class. When compared we note that annual expenditure far exceeds the receipt of the class. This excess needs to be accounted for. As most of the women in informal labour sector belong to this class, we could assume that this expenditure in excess of receipt is met by household non marketed activity and by income from labour participation in informal work. It can be pointed out that most of these households are indebted, the excess expenditure is met by taking loan. However, it is relevant to note that the difference is quite substantial to be explained by loan factor. Taking into account the asset base of this section, it is possible to assume that all the excess expenditure cannot come from loan, it has to be, to a great extent met by productive activity by women and children of the household. This NSS round pertains to rural sector. There is no corresponding survey for urban sector. Hence even the NSS rounds completed uptil today, does not seem to be of much use in measuring the contribution of women in irregular economic activity.

In spite of the inadequacy of NSS 25th round, a simple calculation is presented below to give an idea of the possible existance and extent of the contribution of women engaged in economic activity of irregular and ad hoc nature.

Annual income per household and monthly consumer expenditure of small cultivator household by annual income class.

Annual Receipt class in Rupees	Net Income Rs.	Monthly Consumer Exp. per H.H.	Annual Exp. per HH	I - E*	Estimated No. of HH
Less than 300	193.63	58.36	700.68	-506.68	7876
300-599	462.82	102.34	1228.08	-765.21	27751
600-999	814.18	113.20	1358.40	-544.22	81001
1000-1999	1398.89	145.59	1757.00	-358.11	138322
2000-2999	2382.85	195.08	2350.96	+ 31.89	27000
3000 & above	3878.27	264.46	3183.52	+694.75	11250
All Class		139.32			293250

Source: Table 2.1A and 2.2A NSS 25th Round July1970-June 1971 (Rural Areas)

*Income-Expenditure

The Secondary Source data is not much useful in giving a more or less exact value of women's work in informal sector. If at all secondary source is used, it will indicate roughly the existence of and magnitude of contribution to GNP by female workers in informal sector. A sample survey, with the objective of measuring the value at issue is called for. It is possible to specify the aspects and area which the survey must cover. This survey will have to be basically in two sections - (i) rural and urban. In each section number of types of activity has to be taken up separately. A sub-section on, (i) carry home work, (ii) domestic work, (iii) purchase order work etc. Further classifying them on the basis of skill involved in each work. The study has to include collection of data on time dusposition of women engaged in informal work. Such survey will provide information on average number of hours spent by women in each region or area of survey. As most of the work done by low income group women is of unskilled type, the denomination for measuring has to be proportion of going which rate corresponding to the average hours of work. This wage rate is to be used for arriving at the total contribution in money terms. In arriving at a remunerationrate, job evaluation technique would be of help, especially in case of purchase order work given by the manufacturing firm. This would mean, a large group of experts have to work to complete this task of job evaluation and it is also a sophisticated technique used in big industrial organisation. Small scale and unorganised sector fix wage rate on the basis of supply demand forces. Hence, it will be better to use the prevailing wage rate for unskilled workers to estimate the contribution of women workers.

Conclusions:- Most of the economic activities are low technology and minimum capital using activities. Women participation in this sector could be much higher, specially amongst low income group. In the study of 3 slums as mentioned earlier, it was found that nearly 30% of the household had women working in ad-hoc and irregular income activity. The female participation in work force is around 11% as per the 1981 census figures. The labour supply function in this informal labour market is very elastic. Hence the wage or earnings is very low. The work performed by women in carry-home work, in certain activities of Mahila Mandals, in basket weaving or grass bottle cover making, the work is for men i.e. the provider of work are men. Such men women relationship will keep the status of women depressed inspite of participating in income earning activities and income generating activities. The economic activities are at the final stage of production process, for instance packing, pasting labels, rolling papads etc. Hence the economic significance of their work is low and such activities are not able to generate a process of employment multiplication. Finally, the very contribution of women in ad-hoc and irregular work is ignored. A detailed survey of time disposition of women, the work done for income, the nature and duration of work etc. is what seems to be necessary for evaluating the contribution of women to GNP in developing countries.

Technical Seminar on
WOMEN'S WORK AND EMPLOYMENT
9-11 April 1982

THE LOW FEMALE PARTICIPATION RATES AND RELATED ISSUES : OBSERVATIONS BASED ON NATIONAL SAMPLE SURVEY RESULTS

Paul Jacob*

---

* National Sample Survey Organisation; The views expressed are those of the author and not necessarily those of the Organisation to which he belongs.

The low labour force participation rates (and unemployment rate is also low) of Indian women compared to their male counterparts have been a matter of great concern and a subject of current debate. Over the past few decades, on the face of it, the work force participation of the Indian women appeared to be on the decline. According to the Indian censuses, it declined from 33.7 percent in 1911 to 23.3 percent in 1951. The 1961 census estimated the female work participation rate as 28 percent, whereas, according to 1971 census it was only about 13 percent. Of course, it is well known that the main reason for the participation rate being very low in the 1971 census, is the peculiar definition of 'worker' adopted in that census.

The National Sample Survey (NSS) has been carrying out nation-wide Employment-Unemployment surveys more or less on a regular basis covering both rural and urban areas since its 9th round survey programme. But the survey was discontinued in the rural areas from the NSS 18th round though in the urban areas, it continued upto 22nd round. The survey was re-started in 1972-73 (27th round) under a quinquennial data collection programme of the National Sample Survey Organisation (NSSO), the latest in this series being the repeat survey during 1977-78 (32nd round). Based on the data collected in these surveys, estimates of work participation rates as well as unemployment rates for women have been generated. These estimates, apart from the decennial census estimates, provide material for studying the trend of the women labour force participation over the period 1960-1977. In Table (1) are given the percentage of women 'working' and 'unemployed' as estimated from the different NSS Surveys.

Table 1 : Percentage of women 'working' and 'unemployed' to total women (Source: NSS Report Nos.14, 34, 52, 62, 63, 85, 100, 103, 114, 127, 152, 156, 157, 163, 166, 181, 190, 214 and Draft Report No.298)

NSS Round	Period of Survey	Reference Period	Percentage to Total to Working		Unemployed	
			Rural	Urban	Rural	Urban
1	2	3	4	5	6	7
4	April'52-Sept.'52	long period (say 1 year)	33.79	15.16	0.04	0.12
6	May'53-Aug.'53	one month	33.03	14.96	0.02	0.23
7	Oct.'53-March'54	-do-	31.46	14.54	0.08	0.32
9	May'55-Nov.'55	long period (say 1 year)	26.56	11.58	0.06	0.36
10	Dec.'55-May'56	one day	21.15	11.58	0.57	0.51
11&12	Aug.'56-Aug.'57	-do-	21.12	12.00	2.21	0.83
13	Sep.'57-Mar.'58*	-do-	-	11.73	-	1.23
14	July'58-June '59	one week	24.04	11.30	2.62	0.43
15	July'59-June '60	-do-	21.61	11.56	1.97	0.83
16	July'60-June '61	-do-	25.92	13.25	1.80	0.30
17	Sept'61-July '62	-do-	20.27	10.49	1.89	0.36
18	Feb.'63-Jan. '64	-do-	-	10.20	-	0.25
19	July'64-June '65**	-do-	24.66	10.11	2.10	0.24
20	July '65-June'66	-do-	-	10.09	-	0.26
21	July '66-June'67**	-do-	27.29	10.65	1.24	0.20
22	July '67-June '68	-do-	-	12.20	-	0.29
27	Oct.'72-Sep.'73	long period (say 1 year)	37.53	15.53	0.18	1.00
32	July'77-Sep.78***	One week	32.60	14.24	1.90	1.44
		one day	27.21	12.50	3.44	1.98
		last 365 days	28.82 (38.48)	14.03 (17.80)	1.68 (0.79)	3.30 (2.52)
		one week	26.90	14.22	1.16	1.75
		one day	22.56	12.46	2.28	2.12

Notes: * No survey in the rural areas.

** The estimates for rural areas are based on integrated household surveys.

*** Figures in the parenthesis are the estimates adjusted for marginal workers.

While comparing the figures thrown up by the different survey rounds, one should keep in mind whether (i) the data collected, based on which the estimates were built up, had the same reference period (ii) the concepts adopted were same and (iii) the survey period covered were one full year to take care of the seasonal fluctuations. For the 14th and subsequent rounds, the estimates presented are based on a reference period of 'one week' (though for the 27th and 32 nd rounds, estimates based on 'usual status' and 'one day' reference period are also available) and, therefore, in that respect they are comparable with one another. The estimates thrown up by the earlier rounds (upto 13) are not strictly comparable with the later ones as the reference periods for data collection in those rounds were 'one day', 'one month' or a 'long past' and therefore, may be treated only as indicative of a broad pattern. As regards the definition adopted for 'working', it remained same over the rounds (14 to 32) for the reference period 'one week'. But for the 'unemployed' there were some variations in the definition adopted since the 13th round. For the 13th round, an 'unemployed' was one who sought or was available for work on all the days of the week. For the 17th through 22nd rounds for the Urban Labour Force Surveys, 'unemployed' were those of age 14-59 years and currently sought full time work during the reference week, whereas for the remaining rounds 14 to 16 and 27 and 32 any person who sought work or was available for work any time during the reference week was treated as unemployed. Regarding the coverage for seasonal fluctuations, the survey period of the 17th round was not a full year and therefore, might not depict the exact annual average position. While admiting that classification with reference to a short reference period generally over estimates 'unemployment' and under-estimates 'employment' and the usual status (or long reference period) participation rate is more inclusive than the corresponding current status (i.e. short reference period) rate, in view of non-availability of the usual status rates for the earlier NSS survey rounds, a comparison of the 'work' participation rates' and the 'unemployment rates' based only on current status (i.e. the reference period 'one week') classification over the different rounds 14 to 21 for the rural areas and 14 to 22 for the urban areas will indicate a trend. This together with the results of the 27th and 32nd rounds for which three different participation rates have been presented will further show that the above comparison may not be considered invalid and does reveal the position over the last two decades.

It is seen that among rural females, there is an increase in the 'work force' participation rate from late fifties and early sixties to late sixties and a further increase in recorded for seventies. The estimates thrown up by the survey rounds 14th through 17th have shown an erratic pattern of participation of the 'rural female work force' with higher and lower rates generated from the data of the alternative rounds. But the trend from mid sixties onwards is very clear - an increase in the rate of work participation, from 25 percent in 1964-65 to 27 percent in the 1966-67 and to 33 percent in 1972-73 - contrary to what has been indicated by the results of decennial censuses of 1961 and 1971. The 32nd round, however, shows a fall in the rate (27 percent) which it is claimed is not a real fall, but the result of some mis-classification due to introduction in that round of a new activity classification category to identify separately persons engaged in house work and certain other specified activities from those engaged only in house work.

As regards the urban women, the proportion of the 'employed' remained by and large constant - about 12 percent during the period 1957-61. But for the period between 1962 to 1966, it appears that the rate has dropped to about 10 percent as thrown up by the urban labour force surveys. Again, the estimate for the year 1967-68 (urban labour force survey) was 12 percent and since then an increase has been indicated by the results of the 27th and the 32nd round surveys which have placed the proportion at 14 percent. The overall indication therefore, is that there is a tendency towards upward rise in the women work force participation during the late sixties and early seventies compared to the earlier periods.

Looking at the situation of 'unemployment' the percentage of unemployed was about 2 percent among rural women during the years 1958-59 to 1972-73 indicating practically a steady trend, with an exception for the year 1966-67. As regards the urban areas, a fall in the 'unemployment' rate was recorded in the sixties compared to the late fifties and then a substantial increase in the beginning of seventies. The estimates thrown up for most of the years in the sixties were, of course, based on the urban labour force surveys in which 'unemployed' were defined as only those who were actively looking for work and in the age-group 14-59. This change of

definition most likely accounts for the lower estimates generated for these rounds compared to the earlier rounds. If this can be assumed, during the sixties there was really no reduction in the unemployment rate of urban women compared to the late fifties. On the other hand, there was an increase in the unemployment rate since 1968 as revealed from the 27th and 32nd rounds survey results.

Comparing the NSS 27th and 32nd round survey results, it is observed that there has been a fall in the female participation rates - particularly in the rural areas. In both these rounds three rates[1] have been generated - the usual status rates, the current weekly status rates and the current day status rates. The fall in the usual status rates as revealed from the 32nd round survey results had been attributed to the adoption of major time criterion in the 32nd round for classification of persons according to usual status which excluded the marginal workers from the count of total workers[2]. Taking this factor into consideration and thus including the marginal workers, NSS has worked out an adjusted estimate of 'usually working' as 38.48 percent which is a little higher than the rate thrown up by the 27th round survey. The fall in the current status work participation rate during 1977-78 compared to 1972-73 has been attributed to a possible mis-classification of some marginal workers into the category of house workers due to introduction of a new sub-category for house workers as 'engaged in household duties and also in free collection of goods, tailoring, weaving etc. for household consumption[3]. To substantiate this, the NSSO document has furnished an exericise according to which the work participation rate of rural females in the age-group 15-59 (37.59 percent) stands adjusted to

---

1 The importance and the interpretation of these three rates are discussed in various NSSO documents and other literature.

2 Report on the Second quinquennial survey on Employment and Unemployment : Survey results - all India.

3 Employment-Unemployment situation in India during the seventies - a comparative study based on the results of the NSS 27th and 32nd round surveys (Sarvekshana, Vol.3, No.3).

46.71 percent which compares well with the corresponding 27th round estimate (46.68 percent). It is thus obvious, that the labour force participation of female is not in the decline, rather it is on the increase.

The female participation rate is not declining in the recent years is only one aspect of the issue. The other most important and debated aspect is the low participation rate of females compared to that of the males. The 32nd round results have revealed that according to usual status approach for persons of age 5 years and above, while the male participation rate is about 64 percent, the female participation rate is only 31 percent for rural areas. In the urban areas the rates are respectively 60 percent and 17 percent for males and females. On the other hand, the proportion of 'house workers' is very high among females compared to males. It is often argued that in large scale surveys many activities carried out by women and broadly classified as 'household duties' contain elements of gainful work which are ignored or overlooked. Further, the women as a part of their house work carry out certain activities from which the household derives benefits. These activities though technically not considered gainful, involve spending of time and energy of women and, therefore, should also be taken into account and attempt should be made to appropriately evaluate them. In this context, it is worthwhile examining how, in the NSS surveys, a worker according to current status approach is defined. For current weekly status approach, a person is considered 'working' if he or she carries out any gainful activity <u>for at least one hour on any one day of the reference week</u>. Thus any person working for one hour at least on any one day during a reference period of seven days is netted in the work force. Naturally those who participate in work for less than one hour on any one day are excluded. It is possible that a number of women may be engaged in activities like household poultry or kitchen gardening etc. which do not require one hour's work on any one day. There are also activities like preparation of gur, ghee, etc. for household consumption or pounding of cereals and making of cow dung cakes, etc. for household use which are often performed by a large number of housewives. Irrespective of time spent on such activities, quite often such activities are considered only as part and parcel of 'house work' and are not separately identified as gainful work performed by females. There is still a third category of activities very often carried out by housewives for family benefits, like sewing, mending and weaving,

tutoring of own children, bringing water, etc. which are considered non-gainful when performed for family consumption. The participation of women in all these activities are not accounted in the calculation of the overall participation rate for women. It is with the express objective to find out the extent of participation in such activities that in the NSS 32nd round survey, a special probing enquiry was included for women categorised as 'engaged in household duties' according to usual status. Such women were asked whether they participated more or less regularly in the various specified activities. Table (2) gives the proportion of women classified as engaged in household duties and also participated in certain specified activities for family benefits to total women.

Table 2 : Percentage of women engaged in household duties and participated in specified activities for family benefits.

	Specified Activities	Percentage to Total Women	
		Rural	Urban
	1	2	3
1	Free collection of fish, small games, etc.	6.24	0.80
2	Free collection of fire-wood, cow dung, etc.	14.34	3.11
3	Free collection of any of the above goods	14.92	3.22
4	Maintenance of kitchen garden	4.70	1.35
5	Work in household poultry	11.06	3.11
6	Work in kitchen garden or household poultry	12.69	3.98
7	Sewing, tailoring, weaving etc.	3.77	6.65
8	Tutoring of children	0.48	2.19
9	Bringing water from other villages	1.35	-
10	Any of the specified activities	21.78	12.33

It is seen that in addition to women classified as 'workers', nearly 22 percent of the rural females and 12 percent of the urban females have participated in one or other of the specified activities. One may think of adding these proportions to the estimates of work participation rates to obtain an upper limit of the female participation rates, of course, after judging which of those specified activities can be brought within the ambit of 'gainful work'.

But only by taking recourse to this simple exercise for the purpose of deriving an estimate of the proportion of women performing such activities one would not be able to bring into clear focus the total drudgery of the female folk experienced in carrying out the so called 'house work'. Also the above estimate does not provide specific information on the extent of effort spent on various activities covered within the broad category 'house work'.

It is now being emphasised that for a proper evaluation of the nature and extent of women's effort spent in house work, attempt should urgently be made by data collection agencies to collect data on 'time-use' in all such multifarious activities that every woman has to perform daily in their respective household.

Regarding collection of data on time-use, there are some special problems particularly for developing countries having large agricultural sector which is subject to seasonal fluctuation in productive activities. In India, particularly in rural areas, as women have to combine 'house work' with other household productive activities, the 'house work' itself is subjected to seasonal fluctuation. In consequence, the collection of time use statistics must take account of activities performed in different seasons in a year. Thus the collection of data must not be a one snap-shot survey but a repeat survey in the same household in different seasons or a continuous survey over a year to cover different households in different seasons.

Secondly, doubts are often being raised by researchers engaged in women studies that the kind of data they handle have an inherent or in-built male bias as they are collected generally by male investigators and that too from male respondents as proxy for their female members. In the case of time use statistics for which women will be the respondents, the necessary of engaging female investigators is almost imperative.

Under the prevailing socio-economic cultural environment obtaining in India, it is doubtful whether at the macro level, the design of a repeat survey by female investigators

to collect data on time-use in different activities coming within the scope of household chores can be fitted into our statistical system.

There are also other deeper problems. The use and integration of time-use statistics in any statistical system would be deemed purposeful in a situation when there is some social sense of time or when time spent or wasted is rated in economic value terms. In countries like India which are confronted with the problem of declining land-man ratio, where particularly in the vast rural areas enormous man power remain under utilised or often mal-utilised, it is doubtful if the total environment is conducive to the development of either a social or economic sense of time among men and women alike and more particularly among women. To put precisely, we doubt the reliability of the time-use statistics collected in terms of hours and minutes as it is felt that whether in the vast rural areas time is really measured in terms of hours and minutes. With great effort put, the investigators can at best collect data in terms of 'full', 'half' and 'nominal' day even though the hour or minute content of a full or a half day may be different for different persons depending on how busy or how idle the particular respondent is.

It is, therefore, very important that before toying with a new idea at macro level, some experimental enquiry at micro level should first be attempted to understand the full implications of organising a survey on time-use statistics on a large scale. This note of caution is recorded as in a vast country like India, it will be a costly experiment.

Last and perhaps the most important obstacle which will stand in the way of smooth collection of time-use data is the kind of response one expects to get from the women respondents, from whom detailed time-use statistics for different types of activities she performs have to be extracted within a reasonably short period of interviewing time. The investigators can be goaded to perform the investigation work by administrative fiat, but it is doubtful

whether the rural respondents can afford spending much time to talk with the investigators. The sophisticated respondents belonging to the elitist class in the urban areas may close their doors even before the investigators can fully explain the purpose of the investigation.

All these details have to be carefully sorted out and tried out in micro level pilot studies before one tries collection of time-use statistics from women respondents at a macro-level.

ACKNOWLEDGEMENT

The author is deeply indebted to Shri Sudhir Bhattacharyya for his valuable guidance in the preparation of this paper.