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**WOMEN AT WORK
IN BANGLADESH :**

**A Study of Women's
Food for Work Programs**

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with the assistance of

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**United States Agency for
International Development**

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*Dedicated to the memory of
Heather Kristine Marum*

PREFACE TO THE SECOND EDITION

Woman at Work in Bangladesh: A Study of Women's Food for Work Programs is the second edition of study first written in 1981. It reports the findings of a research project conducted from October 1980 until July 1981 evaluating Food for Work projects employing women. The findings of this project have been previously reported in the first edition entitled **Women in Food for Work in Bangladesh** which was reproduced in July, 1981. Funding for the printing of this second edition was provided by the United States Agency for International Development.

Revisions have been made throughout the book, and Chapter Seven, the conclusion, has been completely rewritten and expanded. These revisions extend the findings and implications of this research beyond the context of Food for Work programs to the broader issues of women's employment and the changing roles of women in Bangladesh.

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This study could not have been accomplished without the cooperation and assistance of three voluntary agencies involved in women's Food for Work projects discussed in this book. The author is grateful for the assistance of Rudolph von Bernuth, the director of CARE in Bangladesh and other CARE staff members, and the assistance provided by the directors and staff of Rangpur/Dinajpur Rehabilitation Service and CONCERN.

The author gratefully acknowledges the contributions of Professors Henry Miller, John Clausen, and George DeVos of the University of California, Berkeley to this second edition, and in particular for their recommendations and suggestions regarding the concluding chapter.

Printing of this second edition has been supervised by Cheryl Mahar Slocombe, and her careful editing and proofreading have been of great assistance.

The interviews of women working on Food for Work projects were conducted by Begum Mahbuba Akhter, Parvin Akhtar Banoo and Bilkis Akhtar. The author gratefully acknowledges their important role in this study.

Mahbuba Kaneez Hasna worked closely with the author throughout the project and provided invaluable assistance. Her

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Careful writing of the Bangla version of the interview schedule was a crucial element in the entire project. She assisted in the training of the interviewers and supervised their work in the field. She had tabulated the data collected during interviews with project officials and assisted in writing chapter 4. Ms. Hasna has taught the author much about Bangladesh and about the practicalities of working here.

Women workers on Food for Work projects have earned the appreciation and respect of the author. The cooperation and time of over 400 of these women who were interviewed is especially appreciated. It is the author's hope that this book may serve to benefit women who participate in Food for Work.

The author would like to express her deep appreciation to her husband, Lawrence Marum, for his constant support and encouragement. He read and re-read each draft of this book and gave considerable editorial and analytical advice. He graciously accepted the eight month invasion of our home by the research team. Working as an independent researcher in Bangladesh is no easy task—his help was essential to the success of the project.

M. Elizabeth Marum
Dhaka, Bangladesh
December, 1982

ABSTRACT

This is a study of women in Bangladesh employed in projects where they receive payment in wheat in exchange for their labor. Three hundred and fifty-five women were interviewed using a structured, fixed-choice interview schedule. In spite of assumption that such a data collection instrument is inappropriate for use with illiterate, rural women, this study found that with extensive pre-testing and the use of appropriate language, reliable and valid data can be obtained in this manner.

The study found that women's employment in Food for Work projects such as roadbuilding, reforestation, and cottage industries serves as an important and needed source of food. The large families of these women are the rural landless and they frequently encounter food scarcity. Although poverty is an almost universal feature of life in Bangladesh, these employed women clearly represent the "poorest of the poor". Sixty percent were not currently married, and over half were the major income earners of the family. The married women had twice the national rate of family planning practice.

Although the seclusion of women is still viewed as desirable by many in Bangladesh, the extreme economic conditions facing the families of these women have helped to overcome the traditional barriers to the employment of women outside the confines of the household area. Very few of the women had encountered familial or neighborhood criticism of or opposition to their employment. This research suggests that under conditions of increasing economic hardship and widespread hunger, extremely poor, uneducated rural women are receptive to new behaviours, such as employment and family planning, which will improve the standard of living for themselves and their families. Thus, these employed women

have become an important economic resource to their families and nation, and are one vanguard of social change and modernization in a highly traditional society.

This study provides evidence that women workers are interested in year-round, non-seasonal employment, and that such projects would have little difficulty attracting women workers if the payment rate were adequate and equitable. A simple daily rate is recommended. Reforestation, village sanitation, and earthmoving projects are recommended as future activities for women's Food for Work programs. Projects such as these, if properly designed, are not only mechanisms for providing needed employment and food to poor women but also have the potential for contributing to the general development of Bangladesh.

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CHAPTER I

Introduction

History of Women in Food for Work

Large scale Food for Work projects have been provided in Bangladesh since 1975 by both the World Food Program and by the United States Agency for International Development. In these projects, wheat is distributed to workers who participated in the construction of roads, embankments, canals and tanks. Women have participated in Food for Work (FFW) projects since the first 1975-1976 work season, but their participation has been limited.

During the 1975-1976 project year, there was no formal encouragement of women's participation in FFW. In 1976 there was a great increase in the interest focused on the issue of women in FFW, and in women's affairs in Bangladesh in general. The national women's organization, Bangladesh Jatiyo Mohila Sangstha, was founded in 1976, and that year a post was created in the government for an Advisor for Women's Affairs. An Advisory committee on women's participation in FFW was convened in 1976, and this committee made a number of recommendations regarding women's participation in FFW. One of their major recommendations was that a different wage rate be established for women workers. In the regular FFW projects, a labourer must move 70 cubic feet of earth to earn the daily ration of three *seers* (2.8 kg. or 6.2 lb.) of wheat. A wage rate for women of 50 cubic feet of earth moved for three *seers* of wheat was implemented in the 1977-78 FFW season. Because

of difficulties in making separate payments to women workers on the same worksites as men, this differential wage rate was implemented by providing separate work projects for women. Women may work on any FFW project, but for a woman to receive this differential wage rate, she must work on a separate FFW project that has been officially designated as a women's project. Separate women's projects have been approved by the Ministry of Relief and Rehabilitation of the government of Bangladesh and monitored by the World Food Program and by CARE (which monitors USAID FFW) for four work seasons. These projects, however, have never represented more than a small percentage of the total number of FFW projects. Table 1 on page 3 illustrates the number of women's projects and the percentage of wheat distributed in women's projects.

This table shows that women's FFW projects have not yet become a significant portion of FFW projects. The reasons for this are not entirely clear. The differential wage rate appears to have been beneficial as it has necessitated the establishment of separate women's projects. Reports from the field, however, have been fairly negative regarding the actual implementation of these women's projects. It has been suggested that the success of women's FFW projects has been hampered by such factors as the physical difficulties of earthmoving work, the reluctance of rural women to accept employment which involves public exposure, and the lack of interest on the part of local officials in women's projects.

In 1977 research was conducted by Chen and Ghznavi on the involvement of women in Food for Work. This study was done before the establishment of separate women's projects. There has never been a comprehensive evaluation of the participation of women in separate FFW women's projects nor an evaluation of women in USAID founded, CARE monitored FFW projects. For this reason, USAID commissioned this study to evaluate and explore the entire issue of women's participation in Food for Work.

Table 1 **Women in Food for Work**

	Work Season			
	1977-78	1978-79	1979-80	1980-81 ^a (projected)
Number of women's FFW projects				
CARE	14	25	25	74
WFP	77	24	48	16
Total	91	49	73	90
Metric tons of wheat dis- tributed in women's FFW projects				
CARE	1,011	1,543	1,626	7,878
WFP ^b	2,230	1,434	4,046	1,079
Total	3,241	2,977	5,672	8,957
Total metric tons of wheat distributed in all FFW projects				
CARE	96,347	108,605	104,117	139,156
WFP ^b	7,965	11,891	11,763	12,009
Total	104,312	120,496	115,880	151,165
Women's FFW projects as percentage of total tonnage of total distributed				
CARE	1.0%	1.4%	1.6%	5.7%
WFP ^b	28.0%	12.1%	34.4%	9.0%
Total	3.1%	2.5%	4.9%	5.9%

^aFinal statistics for the 1980-1981 work season were not available at the time of completion of this report.

^bThe figures for WFP refer only to those WFP Projects under the Ministry of Relief and Rehabilitation. All CARE FFW projects are MORR projects.

Goals and Objectives of this Study

Three basic goals were formulated for this study. One goal was to gather more information about the women currently employed on Food for Work projects and the quality of life for these poor women and their families. These demographic characteristics of women participants in FFW are described in Chapter 2.

A second goal of this study was to study the current conditions at women's FFW projects and the problems associated with the implementation of women's FFW projects in Bangladesh. These issues relating to current employment in FFW are discussed in Chapters 3 and 4.

A third goal of the study as defined by USAID was to assess potential employment activities in addition to earthmoving for women participants in FFW. Prior to proposing any alternate work activities, it is worthwhile to know more about the employment and income generating activities which these women are currently doing without the support of FFW. Current non-FFW work activities of these women are described in Chapter 5. Activities which may be potential future FFW activities and the feasibility of these various activities are discussed in Chapter 6.

During the implementation of this study, the authors developed a fourth goal of the study. Many research and evaluation projects are conducted in Bangladesh, and there is considerable informal discussion of problems and issues relating to research in this country. However, formal analysis of the process of conducting research and evaluation in Bangladesh is uncommon, and therefore a final goal of this study was to make a contribution in this area. A detailed description of the procedures used in this study and a discussion of special considerations necessary for field research in Bangladesh are presented in Appendix A, *Field Study Methodology*.

Implementation of this Study

As the first step in implementing this study, a review of the current literature relating to women and employment in Bangladesh was conducted. This literature review is presented in Appendix C. A second step involved gaining an understanding of the range of women's development activities currently being sponsored by governmental and non-governmental agencies. The observations of the authors regarding these various employment and income generating projects may be found in Appendix D.

Conducting the field study and analyzing the results were the final steps in this project. As stated previously, the methodology employed is described and analyzed in Appendix A. A brief summary of this methodology is presented in the following section.

A highly structured form for interviewing the women participants in FFW projects was designed by the authors. Four versions of this interview form were pre-tested on six field trips to FFW projects in Dacca district, and a total of 51 women were interviewed during the pre-testing. An English translation of the original Bangla form actually used for interviewing is presented in Appendix B.

As originally designed, this study was to focus exclusively on women working in CARE FFW projects. Prior to finalizing the field study methodology, the authors decided also to study women working at several other types of projects. Women earning wheat in FFW projects were interviewed at women's training centers sponsored by CONCERN, an Irish voluntary organization, and at a reforestation project funded by the Rangpur Dinajpur Rehabilitation Service (RDRS), which is sponsored by the Lutheran World Federation. CONCERN and RDRS allowed women working in their projects to be interviewed even though these organizations were under no obligation to do so. In this report, when appropriate, comparisons are made between the

CARE projects, the CONCERN work centers, and the RDRS project. These comparisons are not intended as evaluations of the CONCERN and RDRS projects.

Data was collected through interviewing 355 women participants in FFW. Of this total, 298 women were interviewed at 11 CARE monitored earthmoving projects, 41 women were interviewed at two CONCERN work centers where women were doing cottage industries, and 16 women were interviewed at the RDRS sponsored reforestation project. These women were chosen for interviewing through random sampling techniques.

Appendix A includes a thorough discussion of the design and pre-testing of the interview form and the sampling methods used. The special conditions and problems encountered in the field work and the techniques employed to correct these problems are discussed. Finally, there is a description of the statistics cited and the procedures used for data analysis.

CHAPTER 2

Demographic Characteristics of Women in Food for Work

Introduction

Who are the women who seek employment outside their homes in rural Bangladesh? Traditionally, employment for women which involved public exposure has been so highly stigmatized that it has been thought only the "poorest of the poor" and women lacking a male to support them would seek this type of employment. In the course of the interviews with these 355 employed women, a number of questions were asked in order to gain more accurate information about the personal and demographic characteristics of the respondents. Such characteristics as age, religion, education, marital status, fertility patterns, and economic status of the subjects of this study are described in this chapter.

Age

In rural Bangladesh very few people, men or women, know their precise age. The interviewers asked each woman her age and marked the appropriate category according to the woman's response, which in almost all cases was somewhat vague and imprecise. In those cases in which the respondent did not have any idea of her age, the interviewers asked a few questions such as the age of her oldest child, and marked a category based on the woman's answers and the interviewer's own estimate of the woman's age. This same procedure was followed

in those cases in which a woman's response was clearly incorrect. The age distribution of all women working in FFW projects, including CONCERN and RDRS, is shown in Table 2 below, with the corresponding data from the 1977 Chen and Ghuznavi study.

Table 2 **Age Distribution of Women in FFW**

Estimated Age	1981 Study		1977 Study	
	Number	(Percent)	Number	(Percent)
10-19 years	—	—	50	(16.5)
10-14 years	21	(5.9)	—	—
15-19 years	31	(8.7)	—	—
20-29 years	92	(25.9)	61	(20.1)
30-39 years	102	(28.7)	92	(30.4)
40-49 years	73	(20.6)	63	(20.8)
50-59 years	29	(8.2)	31	(10.2)
60 years or more	7	(2.0)	6	(2.0)
Total	355	(100.0)	303	(100.0)

Table 2 shows that over 50% of the women working on FFW projects are between the ages of 20 and 39, and slightly over 30% are over age 40. The age distribution of women in FFW has not changed significantly since 1977. Further analysis revealed that this age distribution varies among the CARE, CONCERN, and RDRS projects, as presented in Table 3 on page 9.

Table 3 Age Distribution by FFW Project Type

Age ^b	Agency				Total ^a			
	CARE		CONCERN		RDRS		Total ^a	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
10-19 years	52	(17.4)	0	(0.0)	0	(0.0)	52	(14.6)
20-29 years	79	(26.5)	12	(29.3)	1	(6.3)	92	(25.9)
30-39 years	78	(26.2)	16	(39.0)	8	(50.0)	102	(28.7)
40-49 years	57	(19.1)	9	(22.0)	7	(43.7)	73	(20.6)
50 years or more	32	(10.7)	4	(9.8)	0	(0.0)	36	(10.1)
Total	298	(99.9)	41	(100.1)	16	(100.0)	355	(99.9)

Chi-square significant, $p < .01$.

^aIn this table and most of the tables in this report, percentages are given for each column and therefore percentages add going down the table, not across. In some cases the percentages may total slightly more or less than 100.0 %: this occurs because of rounding and is not an error.

^bIn this case and many others to follow in this report, certain categories were combined during the analysis in order to make these tables more readily understandable. Thus, for example, in this case ages 10-14 and 15-19 were combined into one category, and ages 50-59 and 60 or more were combined into one category.

Of the 52 young women 10 to 19 involved in FFW, all were doing earthmoving in CARE projects. This fact is partially explained by selection criteria used by both RDRS and CONCERN. Both agencies prefer to select as beneficiaries of their programs extremely poor women without other means of support and those having children to support. Therefore, it is understandable that there are no young women involved in either of these programs. In the case of the CARE earthmoving projects there are no selection criteria and theoretically, any woman or girl who wishes may work.

Young women under the age of 20 make up 14.6% of the total number of women involved in FFW, and 17.4% of the number involved in CARE earthmoving projects. This statistic probably does not adequately represent the total number of young girls involved in earthmoving. At a number of sites, we saw numerous young girls involved in earthmoving, including, some who were under 10 years of age. Initially, we tried to interview these little girls, some of whom were no more than 5 or 6 years of age, but we found that they were not able to answer the interviewers' question appropriately. Subsequently, young girls under the age of 10 were excluded from our sampling procedures.

The wide range of ages among these employed women is a significant finding, for it reveals that women of all ages in Bangladesh are seeking employment outside the confines of the household area. Traditionally, the restrictions associated with the practice of *purdah* are enforced more strictly with younger women, both unmarried and married. The presence of so many young women under the age of 20 at the CARE earthmoving sites, where the workers are exposed to public view, suggests that these restrictions are not enforced as consistently as the popular idealization of *purdah*. Furthermore, the presence of a significant minority of women over the age of 50 involved in the heavy physical labour of earthmoving is also a significant finding. Since the average life expectancy in Bangladesh is 48, women over the age of 50 would certainly be regarded as "elderly". That women of this age group would be employed in heavy physical labor contradicts popular beliefs about the lives of elderly women in Bangladesh.

Religion

The religious distributions of the women in FFW in this study are compared with the data from the 1977 Chen and Chuznavi study and the 1974 Bangladesh Population Census in Table 4 below.

Table 4 Religious Distribution of Women in FFW

Religion	1981 FFW Study		1977 FFW Study		1974 Bangladesh Population Census
	No.	(%)	No.	(%)	(%)
Muslim	294	(82.8)	321	(76.2)	(85.4)
Hindu	60	(16.9)	72	(23.8)	(13.5)
Christian	1	(0.3)	0	(0.0)	(0.3)
Buddhist	0	(0.0)	0	(0.0)	(0.6)
Others	—	—	—	—	(0.1)
Total	355	(100.0)	393	(100.0)	(99.9)

Note: A census was conducted in Bangladesh in 1981. The statistics regarding the religious composition of the population were not available at the time of the writing of this report. However, census officials state that they expect the religious distribution in 1981 to be similar to that of 1974.

Although there are some differences between the two FFW studies, the current FFW sample does not differ significantly from the 1974 Census. Further analysis of religious distribution according to project type reveals a concentration of Hindu women in CARE earthmoving projects, as shown in Table 5 on page 12.

Table 5 Religious Distribution by FFW Project Type

Religion	Agency							
	CARE		CONCERN		RDRS		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Muslim	242	(81.5)	40	(97.6)	12	(75.0)	294	(83.1)
Hindu	55	(18.5)	0	(0.0)	4	(25.0)	59	(16.7)
Christian	0	(0.0)	1	(2.4)	0	(0.0)	1	(0.3)
Total	297	(100.0)	41	(100.0)	16	(100.0)	354	(100.1)

Chi-square significant, $p < .01$.

In the entire sample there were only seven women who identified themselves as being from a tribal group. Various ethnic tribal groups comprise only a very small proportion of the population of Bangladesh, although recent figures are unavailable, tribal people are less than 1% of the total population. Most of them are Buddhist, although some are Christians and Hindus. Their cultural traditions are distinct from those of the Muslim majority of Bangladesh and they do not observe the seclusion of women, or *purdah*. Three of the tribal women in the sample were engaged in CARE earthmoving projects and four were in the CONCERN centers. This small number (only 1% of the women doing earthmoving) probably does not adequately reflect the total participation of tribal women in earthmoving projects in Bangladesh. According to reports from CARE personnel in the field, there are large numbers of tribal women doing earthmoving in Mymensingh district. Because tribal women represent such a small proportion of Bangladeshi women potentially available to work on FFW projects, their participation was not specifically examined within the scope of this study.

Education

As might be expected, relatively few of our sample had ever attended school. Only 42 or 12% of the total stated that they had attended school. Of this number, over 60% had only attended one or two years of school. The respondents were also asked if they had ever attended *Madrassah*, or Muslim religious schooling. Thirty-seven percent of the total, 110 women, reported that they had attended religious school, and 81 of these women had attended for more than one month. Only 27 or 7.6% of the total stated that they could read, and five or 1.4% stated that they were currently learning to read. When asked if they could write, 23 (6.5%) stated that they could write their name only; 14 (3.9%) stated they could write, and only 1 (0.3%) stated that she was currently learning to write.

When these educational measures were correlated with whether a woman was involved with CARE, CONCERN or RDRS, some significant relationships were found. In the total sample, 12% had attended school, while none of the women tending trees for RDRS had ever attended school (Chi-square significant, $p < .001$). While the overall attendance rate at *Madrassah* was 37%, 42% of the CONCERN participants had attended *Madrassah*, while only one RDRS participant (8%) had attended *Madrassah* (Chi-square significant, $p < .01$). While 7.6% of the total sample could read, 24% of CONCERN participants could read, but none of the RDRS participants could (Chi-square significant, $p < .001$). Finally, while only 2% of women doing earthmoving could write, and none of the women tending trees, 20% of the CONCERN women could write and an additional 14% of CONCERN women reported that they were currently learning to write (Chi-square significant, $p < .0001$ level). These statistics again support the selection process used by RDRS which aims at the poorest and most disadvantaged women. Further, these statistics also show that women participating in the CONCERN projects are better educated. The CONCERN work centers not only provide employment and skill training

to women but also sponsor functional education classes. At the time of our interviewing at these centers, literacy was being taught to some of the workers, and literacy has been taught in the past at these centers. It is therefore not surprising that so many women from these CONCERN centers could read and write or were learning to do so.

Marital Status

Table 6 below illustrates the marital status of the women in this sample compared with the 1977 study.

Table 6 Marital Status of Women in FFW

Marital Status	1981 FFW Study		1977 FFW Study	
	No.	(%)	No.	(%)
Married	142	(40.0)	101	(33.3)
Widowed	119	(33.5)	101	(33.3)
Divorced, deserted, separated	52	(14.6)	43	(14.2)
Never married	42	(11.8)	58	(19.1)
Total	355	(99.9)	303	(99.9)

This table shows that 60% of the women in our sample are not currently married, which supports the widely held notion that women who become involved in FFW, especially in earth-moving projects, are widows and deserted women. It is interesting to note, however, that 142 (40%) women in the sample were currently married, and of this number, 139 reported that their husbands were living with them. The percentage of currently married women participating in FFW has increased since 1977. The traditional notion in Bangladesh is that husbands will not

allow their wives to go outside of the *bari* area to become employed. It is clear that in a large number of families, these traditional ideas regarding the role of married women are no longer practised consistently.

Further analysis of marital status in terms of whether the woman is working with CARE earthmoving projects or the two non-earthmoving projects is presented in Table 7 below.

Table 7 Marital Status by Project Type

Marital Status	Agency					
	CARE No. (%)	CONCERN No. (%)	RDRS No. (%)	Total No. (%)		
Married	124 (41.6)	18 (43.9)	0 (0.0)	142 (40.0)		
Widowed	88 (29.5)	17 (41.5)	14 (87.5)	119 (33.5)		
Divorced, separated, deserted	44 (14.8)	6 (14.6)	2 (12.5)	52 (14.7)		
Never married	42 (14.1)	0 (0.0)	0 (0.0)	42 (11.8)		
Total	298 (100.0)	41 (100.0)	16 (100.0)	355 (100.0)		

Chi-square significant, $p < .0001$.

This table shows that CONCERN has a higher than expected number of women who are currently married, while RDRS has no currently married women. RDRS makes a specific attempt to chose as participants in their program, women who are especially poor and do not have other family members to support them, and it is clear that they have successfully identified women who are either widowed, divorced or deserted.

Fertility Patterns

Pregnancy and nursing. All currently married women were asked if they were currently nursing an infant, and 139 or 33.5% of the total sample responded positively. The observations of

the research team are consistent with this finding, as numerous women were seen nursing their babies during short breaks from their work. The differences in this distribution according to type of labor (that is, between the CARE earthmoving projects and the non-earthmoving projects) are slight and insignificant. While the work involved in both cottage industries and tree tending is not arduous, earthmoving work is quite physically demanding. It has been estimated that nursing an infant requires 800 to 1,000 extra calories per day for the mother. This combined with the caloric demands of hard physical labor must create a heavy toll on the physical resources of women doing earthmoving. The impact of this combination of earthmoving and nursing on the health of both the mother and the infant is not known.

Only 17, or 5% of the total sample responded that they were currently pregnant. It should be noted that this number is 12.8% of the currently married women between the ages of 15 and 49. This figure may not reflect the actual number of pregnant women doing FFW. No detailed questions were asked about menstrual history nor was there a medical exam. It may well be that more women were pregnant who did not know they were. In addition, detailed analysis of the responses to this question revealed a significant difference in the pattern of responses by interviewer, with one interviewer in particular reporting higher numbers of pregnant women. Knowing the interviewer, we believe that the higher number of pregnant women she reported may reflect the somewhat greater length of time spent in interviewing, and her tendency to probe in more detail. Thus, if all the interviewers had the same interviewing style, it is possible that the total number of women reported to be pregnant would be greater.

Number of children. Data was collected from all women who had ever been married regarding the number of children they had and the number of times they had given birth. Of the 313 ever married women, the average number of times they

had given birth was almost five (4.9, standard deviation of 3.3), and the average number of living children was 3.3 (standard deviation of 2.1). More detailed analysis revealed that the average number of living sons was 1.6; the average number of living daughters was 1.8. To determine age-specific fertility patterns, the number of times a woman had given birth was controlled for age. Table 8 below presents these findings.

Table 8 **Average Number of Births and Living Children per Ever-married Women**

Age	Average Number of Children Ever Born	Average Number of Surviving Children
10-19 years	.6	.5
20-29 years	2.7	2.1
30-39 years	5.0	3.6
40-49 years	6.9	4.3
50 years or more	7.9	4.4

These findings are quite similar to those summarized by Hong (1980) who reports that the average women in Bangladesh has at least 7.1 births during her reproductive years. In our study, the 36 women over age 50 had had 7.9 births but this slightly higher figure may be due to the small sample size of older women. Analysis of the variance in both the number of births and the number of living children was performed using a number of different variables such as religion, educational background, ownership of land, head of household, availability of food, and type of FFW project, but none of these analyses resulted in significant findings.

Family planning. All currently married women were asked in a very simple and straight forward way whether they practise family planning. This question was asked about halfway through the survey, after the interviewer had had a chance to establish rapport with the respondents. In only a few cases did the women appear reluctant to answer this question. It should be noted,

however, that the interviewers went to considerable efforts to ensure that the interview was conducted in private with no one else listening. It is perhaps reflective of the family planning movement in Bangladesh that no women in the sample appeared confused by this question--they all knew what was meant by family planning. Because of time constraints, and the fact that this study does not focus on fertility or family planning behavior, no further questions were included in the interview form about the type of contraceptive method used.¹

A total of 36 women responded that they were practising family planning. This is 10% of the total sample. Table 9 on page 19 shows the distribution of family planning practicers among currently married women aged 15 to 49 in this study compared with the rates found in the 1979 Bangladesh Contraceptive Prevalence Survey (CPS)².

¹One interviewer had had previous experience working as an interviewer on a family planning research project, and when she asked this question, she tended to probe somewhat more than the other interviewers. Although the difference is not statistically significant, the women she interviewed reported a slightly higher rate of family planning practice than the women interviewed by the other interviewers. Because the difference is not great nor statistically significant, it does not significantly affect these findings. However, it does not suggest that more detailed questions result in a higher rate of family planning practice.

²The data reported in this and the following table are based on unpublished preliminary data from the 1979 Bangladesh National Contraceptive Prevalence Survey. This data was provided to the authors by Carol E. Carpenter-Yaman, Population Officer, USAID, with the permission of S. Waliullah, Director (Social Science), National Institute of Population Research and Training.

Table 9

Age Specific Contraceptive Used Among Currently Married Women^a

Age	1981 FFW Study			1979 CPS		
	Total Number of Women	Number of Women currently Using Any Method	Percentage of Women Currently Using Any Method	Total Number of Women	Number of Women Currently Using Any Method	Percentage of Women Currently Using Any Method
15-19 years	3	0	(0.0)	2,077	131	(6.3)
20-29 years	48	14	(29.2)	4,718	671	(14.2)
30-39 years	48	14	(29.2)	3,136	566	(18.0)
40-49 years	34	7	(20.6)	2,240	244	(10.9)
All	133	35 ^b	(26.3)	12,171	1,612	(13.2)

^aThe data for the 1981 FFW study includes all currently married women age 15-49. The 1979 CPS data includes currently married, non-pregnant women.

^bAnalysis revealed that one woman over age 50 had stated that she was practising family planning. This case was eliminated from further statistical analysis and is not included in Tables 9 or 10. She was questioned in more detail, and informed the interviewer that she was taking birth control pills because there was a special family planning program in which she was participating. In this program (which is not part of the Food for Work program) women taking birth control pills are given wheat payments. She also informed the interviewer that she had been previously sterilized and knew that there was no need for her to take the pill. However, in order to receive the extra wheat which she needed, she was taking the pill and participating in the program.

This table shows that women participating in FFW projects have a rate of 26.3% of family planning practice, which is a much higher rate than was found by the Contraceptive Prevalence Study and by other previous studies. To explore the reasons for this high rate in our study, further correlational analysis was performed with a number of variables. Table 10 on page 21 presents some of these findings as they compare to the findings of CPS.

Table 10

Contraceptive Use Rates by Selected Characteristics^a

Characteristics	1981 FFW Study			1979 CPS		
	Total Number of Women	Number of Women Currently Using Any Method	Percentage of Women Currently Using Any Method	Total Number of Women	Number of Women Currently Using Any Method	Percentage of Women Currently Using Any Method
Religion						
Islam	105	25	(23.8)	10,378	1,162	(11.2)
Hindu	27	9	(33.3)	2,005	449	(22.4)
Other	1	1	(100.0)	57	4	(7.0)
Residence						
Urban ^b	17	8	(47.1)	1,277	285	(22.3)
Rural	116	27	(23.3)	11,164	1,340	(12.0)
Education						
None	110	28	(25.5)	9,335	906	(9.7)
Some	23	7	(30.4)	3,100	712	(23.0)
Landownership						
Owns	15	6	(40.0)	8,427	1,079	(12.8)
Does not own	116	28	(24.1)	4,011	542	(13.5)

^aThe 1981 FFW Study data include all currently married women 15-49. The 1979 CPS data include currently married, non-pregnant women.

^bThe two CONCERN work centers are located in urban areas. It is therefore assumed that all the women working at the CONCERN centers may be considered urban women.

Although the percentage of women practising family planning in our FFW study is considerably higher than for the CPS data, a similar pattern emerges. In both studies, Hindu women have a higher rate of contraceptive practice than do Muslim women. Urban women have higher rates than do rural women, and women who have had some education have higher rates than those with no education. Women in our study whose families owned land had a higher rate than the landless, which is a different pattern than that observed in CPS.

The number of children that a woman has had significantly affected family planning rates in our study. Currently married women 15-49 practising family planning had an average of 2 living sons and 3.8 living children, while those women from this same group who were not practising family planning had an average of 1.3 living sons and 2.8 living children (analysis of variance significant, $p < .01$). This indicates that women with more children and especially with more sons were more likely to practise family planning. It should be noted that there were no significant differences in the number of living daughters between family planning practicers and non-practicers, with both groups having almost the same number of living daughters (approximately 1.5).

Working women in the CPS had a family planning practice rate of 14.1% compared with 12.9% for non-working women. Since all the women in our study were working women, a similar comparison cannot be made for this FFW study. Several other researchers (Alauddin, 1980 ; Choudhury, 1977) have reported that employed women have slightly lower fertility rates than do non-employed women.

What explains the relatively high rate of family planning practice among the women in our study? It should be recalled that this study was not of a random sample of Bangladeshi women (as with the CPS) but rather the women in our sample are a highly selected group—women who are extremely poor and employed outside their homes. In many countries, the more affluent have higher rates of family planning practice, but it has been suggested

that the opposite is occurring in Bangladesh. Very poor families who have difficulties feeding their children may be more likely to restrict their families than the more well-to-do who are able to afford the cultural tradition of large families. The high rate of family planning practice among women involved in FFW supports this hypothesis that very poor women in Bangladesh may be more likely to accept family planning than other women less economically disadvantaged¹

Researchers have discussed the importance of employment as an agent of socialization of the adult in developing countries in the inculcation of modern ideas and practices. Knowledge and use of contraception is a critical factor in the modernization of both the individual and a nation. The fact that all of the employed women in this study were familiar with the concept of contraception, and the relatively high rate of contraceptive use by these women suggests that they have adopted non-traditional behavior not only in terms of being employed outside the *bari* but also in other areas of life. Unlike the more typical Bangladeshi woman who spends the majority of her life within either her father's or her husband's household compound, these employed women have ventured beyond the confines of the household, both geographically and mentally. In the course of traveling to the worksite, these women are exposed to a number of other influencing factors, and having walked to a worksite may make it easier for them to walk to a family planning clinic. Women who are employed come into contact with a far larger range of other women and men than the average Bangladeshi women, and this experience may lead to greater knowledge of and acceptance of modern attitudes and behaviors, such as family planning.

Family size. Family living patterns in Bangladesh are such that it is difficult to establish precise family size. Definitions of who makes up the family, and the presence of large extended families within

¹The authors gratefully acknowledge the assistance of Carol F. Carpenter-Yaman, Population Officer, USAID, who had helpful comments and suggestions regarding this section on family planning.

a *bari* (household compound) make it inappropriate to ask simply about family size. In this study, each woman was asked specifically whether her father, mother, brothers, sisters, or other relatives were living with her. (It should be noted that in the case of brothers this included brothers-in-law, as is the case for sisters). In addition, each married or ever married woman was asked if her husband, children or grandchildren were living with her. This series of questions revealed the distribution shown in Table 11 below.

Table 11 **Composition of Workers' Families**

Identity of Those Living with Workers	Number of Women	(Percent) ^a
Children	275	(77.5)
Husband	139	(39.2)
Mother	122	(34.4)
Sister(s)	104	(29.3)
Brother(s)	96	(27.0)
Father	57	(16.1)
Other relatives	48	(13.5)
Grandchildren	44	(12.4)
Other people, such as servants, etc.	1	(0.3)

^aNote that these percentages do not add up to 100%. In each case, the percentage given is the percentage of women who responded positively to each question. Thus, theoretically, a woman could have responded positively to each question.

Several points should be noted regarding this table. None of these questions was mutually exclusive ; thus, all 122 women living with their mothers could also be living with their husbands. Also in the cases of children, grandchildren, brothers, sisters and other relatives, no attempt was made to determine the exact number living with the respondent. This was tried during the pre-testing of the questionnaire and seemed to cause confusion and inaccuracy, and we decided to use another method to be discussed below to determine family size.

Several findings are noteworthy regarding the composition of workers' families. One is that although 275 (77.5%) reported that they were living with their children, only 139 (39.2%) reported that they were living with their husbands. Thus, 134 women (37.7% of the total) were supporting their children without the assistance of their husbands. This means that almost half of the women living with their children were living without a husband in the home. This table also shows that many of these working women were living in extended families with parents and/or siblings rather than nuclear families.

In addition to asking with whom she was living, each woman was also asked how many adults she cooked for (including herself) and for how many children she cooked. We believe that this may be a more accurate and simple way of determining true family size than attempting to define exactly who is living together within a *bari*. Although there may be several family groupings within a *bari*, there are also usually several *chulas* or cooking fires. It can probably be assumed that the portion of wheat which is not sold is used by a working woman to feed herself and all those for whom she cooks. Thus, especially for the purposes of learning how many people are dependent on the wheat earnings of women FFW laborers, this criterion of the number for whom a woman is cooking is probably a more valid indicator than reported family size, which may be defined very broadly.

Including the respondent, the average number of adults eating together is 3.2 (standard deviation of 1.6). It should be noted that only 50 women (14.1% of the total) reported that they were not cooking for any adults other than themselves. The average number of children eating with the respondent is 2.6 (standard deviation of 1.5); only 40 women (11.3%) reported that there were no children eating with them. When these two figures are added together for each woman, we find that the average number of persons (including children and including the respondent) eating from the same *chula* is 5.5 (standard deviation of 2.3). Henceforth in this report, the term *family size* will be used to indicate the total number of individuals eating from the same source.

When further analysis was performed, it showed that women doing earthmoving in CARE projects had an average family size of 5.6; those in the CONCERN projects of 5.3, and those tending trees with RDRS had a family size of 4.3. However, these differences were not statistically significant. When family size was analyzed in terms of head of household¹ the pattern presented in Table 12 below emerged.

Table 12 Average Family Size by Head of Household

Head of Household	Average Family Size
Self (woman being interviewed)	4.8
Male (husband, father, brother, other males)	6.5
Female (mother, sister, other females)	5.5

Difference between groups significant, $p < .0001$.

¹ A question was asked of all women regarding who was the highest earner in their family. This traditional indicator of head of household status will be used throughout this report.

This table shows that women workers who are the heads of their households had smaller families, and those families with a male head of household were the largest. Although women FFW workers who are heads of households tend to have somewhat smaller families than those women who are not heads of households, it is clear that a number of people are dependent on the earnings of these women workers. Since family size as it has been defined includes the woman herself, it is necessary to subtract one from this figure to determine the number of persons dependent on women workers, thus, women whose income is the highest in their family are supporting an average of 3.8 people in addition to themselves. This is broken down into an average of 2.0 children dependent on a woman worker, and 1.8 adults other than herself.

Table 13 below presents a detailed analysis of the identity of heads of households of women workers.

Table 13 Highest Income Earner in Workers' Families

Highest Income Earner	Number of Women	(Percent)
Self	190	(53.5)
Husband	73	(20.6)
Father	29	(8.2)
Brothers	14	(3.9)
Other males	29	(8.2)
Mother	12	(3.4)
Sisters	5	(1.4)
Other females	3	(0.8)
Total	355	(100.0)

This table shows that over half of the women involved in FFW are the main supporter of their families. Furthermore almost 60% of workers' families have female heads of household. This finding is consistent with the traditional portrayal of

Bangladeshi women who work outside their homes. However, it should be noted that slightly over 40% of these women workers have male heads of households. This suggests that a substantial number of poor rural families find that the earnings of the male head of household are not sufficient to support the family.

Economic Status

Economic status is an extremely difficult variable to measure in Bangladesh, especially in rural areas. In some ways it may be said that participation of women in FFW, especially in earthmoving, is a good indicator of economic status, as only the poorest of families would allow their women to leave the *bari* and engage in this type of labor.

Certainly field observations would tend to support this notion. The authors frequently walked around in the vicinity of the earthmoving project while the interviewing was going on, and in many cases went into nearby household compounds. Even when the earthmoving projects were quite nearby, there were many unemployed women in the larger, more well-to-do *baris*. When they were asked why they were not working, their replies varied from such responses as "There is no need" to "Our husbands will not allow us to work."

This response clearly indicates that in families where there is not pressing economic need, women are less likely to venture outside for work, especially not for earthmoving work. Since our study does not include a comparison sample of non-working women, it is not possible to compare the economic status of these two types of families, but it can be assumed that in almost all cases, participation of women in FFW, especially in earthmoving, is in itself a valid indicator of low economic status.

Other income sources. Several questions which would give some indication of economic status of the family were included in the interview. One of these is occupation of the highest income earner in the family.¹ Table 14 below presents the responses to this question.

Table 14 **Occupation of Head of Household**
Other than Women Workers

Occupation	Number	(Percent)
Earth digging or other manual labor	55	(33.3)
Farmer cultivating on other's land	52	(31.5)
Rickshaw <i>wallah</i> or cart <i>wallah</i>	20	(12.1)
Weaver, tailor, craftsman	7	(4.2)
Factory worker (such as rice mill, jute mill)	7	(4.2)
Peddler, shopkeeper or village businessman	6	(3.6)
Work in other people's household	6	(3.6)
Government office worker	5	(3.0)
Farmer cultivating his own land	3	(1.8)
Traditional midwife, <i>ayah</i>	2	(1.2)
Fisherman	1	(0.6)
Boatman	1	(0.6)
Total	165	(99.7)

It should be noted that 55 of the women reported that the highest earner in their family was doing earthmoving or other manual labor. In another question, women were asked specifically if anyone else in their family did earthmoving. Of the total of 355, 131 or 36.9% reported other family members doing

¹This question was asked of only those women who said that someone other than themselves was the head of household.

earthmoving. None of the CONCERN workers stated that others in their family were doing earthmoving. Eight women at the RDRS project, or 50% of the women doing tree tending, and 123 or 41.3% of the CARE workers responded that others in their families were doing earthmoving. Women were asked specific questions about the identity of the others in their families who were earthmovers, and Table 15 below shows the distribution of answers.

Table 15 Identity of Family Member(s) Doing Earthmoving

Family Member(s)	Number
Children	59
Sister(s), sister(s)-in-law	41
Mother	29
Husband	11
Brother(s), brother(s)-in-law	8
Father	4

Table 15 shows that children of workers were the most likely to be doing earthmoving, and female relatives (mothers, sisters, etc.) were also more frequently doing earthmoving than male relatives. The question as it was worded did not refer specifically to Food for Work nor to women's FFW projects, but was more concerned with earthmoving in general, although it may be assumed that a high percentage of these family members were also working on FFW projects. There is a low frequency of adult male relatives doing earthmoving. Formerly married women (widowed, divorced, etc.) and women who were the highest earner in their families reported more family members doing earthmoving than other women, but the differences were not significant.

A question was also asked about the monthly earnings of income earners other than the woman herself. Table 16 below presents these findings.

Table 16 Monthly Income of Highest Earners^a

Monthly Income	Number	(Percent)
Less than 100 Taka	53	(32.1)
100-299 Taka	54	(32.8)
300 Taka or more	31	(18.7)
Do not know	27	(16.4)
Total	165	(100.0)

^aIn 1981, approximately 17 Taka equaled one U. S. Dollar.

Ownership of land. In rural Bangladesh, another indicator of economic status is the ownership of land. Only 34 women (9.6% of the total) stated that their families owned land, and the main land holding was 3.2 *bighas* (about one acre). However, this figure is distorted somewhat by the presence of one woman whose family had 10 *bighas* and another whose family had 15 *bighas*. The median land holding was 2.2 *bighas*, indicating that half of those families owning land had less than this amount, and fully 40% of the women stated that their families had only one *bigha*—a third of an acre. It is interesting to note that two women replied that they did not know if their families owned any land, and six did not know the amount of land owned by their families. None of the women working for CONCERN or RDRS stated that their families owned any land. This low percentage of land ownership, and small average holdings of those with land, support the basic assumption that women in FFW come from very poor families. It is sometimes estimated that half of rural Bangladeshis are landless but 90% of the families of women in FFW are landless.

Food availability. The assumption that women FFW workers are extremely poor is further supported by the findings relating to another question which was asked. "Does your family have enough food?" Only 19 women (5.4%) responded positively to this question. Because we anticipated a large number of negative responses to this question, a further question was asked about periods when the family lacks food. Table 17 below presents the distribution of responses to this question.

Table 17 **Frequency of Workers' Families Lacking Food**

Frequency of Lacking Food	Agency				Total	
	CARE No. (%)	CONCERN No. (%)	RDRS No. (%)		No. (%)	
Frequent	129 (45.3)	28 (73.7)	5 (31.2)		162 (47.8)	
Occasional	108 (37.9)	5 (13.2)	0 (0.0)		113 (33.3)	
Seasonal	48 (16.8)	5 (13.2)	11 (68.8)		64 (18.9)	
Total	285 (100.0)	38 (100.1)	16 (100.0)		339 (100.0)	

Note: Frequent was defined as every day or many days in a week; occasional was defined as one day per week, during planting seasons or droughts; and seasonal means during the monsoon season.

Table 17 shows that women working at the CONCERN projects reported chronic food shortages, whereas those working at CARE or RDRS projects were more likely to have seasonal food shortages. Overall, it is clear that women in FFW suffer from lack of an adequate supply of food.

As experimental indicator of economic status : As mentioned previously, the precise measurement of economic status in Bangladesh is extremely difficult. While this is true for almost all types of respondents, it is especially difficult when the subjects of a research study are women, who frequently are not allowed access to knowledge about their husband's or fathers' earnings. For this reasons, we decided to experiment with an alternate measure of family economic status that is more behavioral than most economic indicators. Women in this study were asked how many times a day they light their *chula* or cooking fire. Responses to this question are summarized in Table 18 below.

Table 18 Times Per Day Chula is Used

Times Per Day	Number of Women	(Percent)
Once a day	105	(29.6)
Twice a day	191	(53.8)
Thrice a day	58	(16.3)
Four times a day	1	(0.3)
Total	355	(100.0)

The rationale behind asking this question is that in households where food is plentiful, there will be more times per day that the woman lights her *chula* to cook, whereas in households with limited food, the woman will not cook food as frequently. While it may be argued that when the women are working, they are less likely to cook during the day, the fact that there was a range of answers from once a day to four times a day would seem to indicate that working (*per se*) does not prevent women from lighting their *chulas*.

When number of times per day of lighting the *chula* was compared with occupation, there was a significant difference ($p < .01$). Women whose heads of household had such occupations as farming their own land, peddlers, craftsmen and office workers cooked more frequently than those women whose head of household had such occupations as farming the land of others or manual labor. Women whose income was the highest in the family cooked less frequently than those women with a male head of household. All of these differences are in the direction expected if the number of times a woman lights her *chula* is truly reflective of economic status.

Further analysis was performed with several other variables that relate to economic status. The 19 women who stated that their families had enough food cooked an average of 2.2 times per day, while the remaining who stated that their families did not have enough food lit their *chulas* an average of 1.9 times per day (differences significant, $p < .05$). The women who stated that they lacked enough food everyday lit their *chulas* an average of 1.7 times per day; those who lacked enough food many days weekly cooked 1.8 times per day, and those whose times of scarcity were seasonal cooked 1.9 times per day (differences significant, $p < .05$). Another relationship in the direction expected was in terms of ownership of land. Those whose families owned land lit their *chulas* an average of 2.3 times per day, while those without land cooked 1.8 times per day (differences significant, $p < .01$). These findings support the validity of frequency of cooking as an operational indicator of economic status. This indicator may also be a more reliable indicator of economic status than more traditional economic indicators given the social and cultural milieu of Bangladesh.

Coping with hardship. In another question that relates to economic status, women were asked: "If such times come that you have no work to do and no food in your house, then what do you do?" In the pre-testing phase, we had tried simply asking women if they ever had to beg, but we found that women reacted negatively to being asked this question, and we were concerned that hostile reactions to being asked this question might affect the entire interview, and

also make the experience of being interviewed a negative one for the women involved. We therefore tried to get at this information in a somewhat indirect way. Table 19 below presents the various methods women use to cope with economic hardship.

Table 19 **Methods of Coping with Hardship**

Response	Number of women	(Percent)
I borrow from shops or other people	148	(41.7)
I go without food	82	(23.1)
I borrow from relatives	53	(14.9)
I beg	39	(11.0)
Other responses such as my husband supports me, I try to find work, or I sell things	28	(7.9)
This has never happened to me	5	(1.4)
Total	355	(100.0)

Although only 11% reported that they had ever resorted to begging, this probably does not present an accurate picture of the number of very poor women in Bangladesh who at times beg for their livelihood. As stated earlier, a direct question regarding whether a woman had ever begged tended to arouse an emotional, negative response, which probably demonstrates that this is a topic which is not easily discussed. The way our question was worded meant that this 11% volunteered begging as a response; if the women who gave alternate responses had been directly questioned and pressed as to whether they had ever begged, this statistic would probably be higher.

As might be expected, responses to this question were related to the number of times per day a woman lights her *chula*, with those who have begged or gone hungry cooking less frequently than those who have not experienced such hardship (differences significant, $p < .05$). Responses to this question

were also correlated with the highest income earner in the family; women from female-headed households (including themselves) reported a higher rate of begging. All five of the women who reported that they had never had to cope with extreme hardship came from male-headed households (differences significant, $p < .01$). Only five women out of the 355 women interviewed stated that they had never experienced such extreme hardship, and 34% have had to resort to begging or have gone hungry. These findings provide further documentation of the extremely low level of economic status of these women who have sought employment outside the home.

Summary on economic status

Several points are noteworthy in regard to these various indicators of economic status. First, all of the various analyses that were performed support the hypothesis that asking a woman how many times she lights her *chula* will provide a good operational indicator of economic status. In no case did the responses to this question contradict the responses to other questions relating to economic status. Because of the difficulties of measuring economic status in a society in which much economic activity is not based on currency exchanges, this operational indicator may be a simple and reliable measure of economic status. The authors hope that other researchers will test out this economic indicator in order to determine its reliability and validity.

Secondly, it should be noted that analyses of these seven indicators of economic status, namely, occupation, income, ownership of land, food supply, frequency of food scarcity, frequency of cooking and methods of coping with hardship, demonstrate a considerable degree of internal consistency within this set of data. If the interviews had not been conducted or tabulated in a careful manner, or if the women respondents had not replied in an honest, sincere manner, some degree of inconsistency would probably have been discovered when these various indicators of economic status were cross correlated with each other. Since all of

the various correlations performed (not all of which are mentioned above) showed consistent, non-contradictory relationships, we believe that this demonstrates a high degree of reliability in the information collected in this study.

A final point to be made here is that all of these indicators of economic status reveal a level of economic hardship and poverty that is greater than the national average. The field observations of the authors are also consistent with the data discussed above. Women who participate in Food for Work, whether they are doing earthmoving, tree tending, or doing cottage industries, come from an extremely needy segment of the population, many of whom have no other alternate means of support.

Summary

1. Over 50% of the women working on FFW projects are between the ages of 20 and 39, and an additional 30% are over age 40. Slightly under 15% of the workers are under age 20; all of these young girls are doing earthmoving.
2. The religious distribution of the women in FFW is similar to national averages. Muslim women are 82.8% of the sample and Hindu women are 16.9% of the sample.
3. Less than 10% of the women in FFW are literate. Women at the CONCERN work centers which offer functional education and literacy classes have a literacy rate of over 20%.
4. Sixty percent of the women in FFW are not currently married.
5. Women in FFW who have ever been married have given birth an average of five times and have an average of 3.3 living children. The average family size is over five members.
6. A very high rate of 26.3% of currently married women reported practising family planning. This supports the hypothesis that in Bangladesh very poor women may be more likely to practise family planning than other women less economically disadvantaged.

7. Over 50% of women workers are the highest income earner in their families.
8. An experimental indicator of economic status was used. This is the number of times per day of lighting the *chula* (cooking fire). This proved to be a simple and reliable indicator of economic status.
9. A total of seven indicators of economic status were measured. All of these indicators reveal a consistent pattern of extreme economic hardship and poverty among women in Food for Work.

CHAPTER 3

The Employment of Women in Food for Work Projects

Introduction

All of the women interviewed in this study were currently employed in a project in which they received wheat in payment. This chapter presents a detailed discussion of the findings of this study as they relate to these women's employment in Food for Work. There are four major sections in this chapter :

1. The work history of women in FFW.
2. How and why women became involved in FFW and the reactions of their families and neighbors to their employment.
3. The working conditions at FFW projects, the organization of work, and the problems workers encounter.
4. The workers' knowledge of payment regulations, the earnings of the women's use of their earnings.

Work History

Of the 298 women involved in earthmoving, 123 or 41% stated that they had done earthmoving previously. Of these 123, 47 or 38% had done earthmoving more than one year previously. Thus, of the total number of women doing earthmoving, on the average about 16% are women with experience lasting more than one year. Only nine women (3% of the total) had experience of more than three years. Furthermore, as Table 20 on the following page illustrates, the average

length of time a woman has spent on a particular site is in most cases brief. The relative lack of experience at a particular worksite is shown by the fact that 71.3% of the women had been working at the worksite for four weeks or less at the time of the interview. Some of this lack of experience is attributable to the fact that the earthmoving Food for Work season started late during the year these interviews were conducted, and in some cases our research team visited a worksite not long after work had begun.

Table 20 **Length of Time at Present Worksite**

	Number of women	(Percent)
Less than 2 weeks	109	(36.7)
3 to 4 weeks	103	(34.6)
5 weeks or more	85	(28.6)
Total	297	(99.9)

The relatively short length of time women had spent on a worksite no doubt affected some of their answers. For example, CARE staff have indicated that in some areas more problems relating to the wheat distribution occur late in the work season compared with early in the work season and specifically that late in the work season workers do not receive their correct earnings. It may be that had we interviewed women at the time of completion of a project, there would have been more complaints about the payment quality of wheat, and so forth.

The data from women working with CONCERN and RDRS provide an interesting contrast. The CONCERN centers have been in operation since 1972 and many of the women working in their centers have been there for a number of years. While only 3% of women doing earthmoving had experience of more than three years, 83% of the women interviewed in the CONCERN centers had been there more than three years, and 34% of the

total had experience of six years or more. No women at CONCERN had been working less than one year, and only one woman out of 41 interviewed had been working less than two years. On the other hand, the RDRS tree planting project is a very new project initiated in 1980, and all 16 of these women had been working less than one year.

All of the women working on CARE projects are doing earthmoving, and all of the women working on the RDRS project are tending trees. However, at the CONCERN projects there is considerable diversity of activity. Women who were interviewed at the CONCERN work centers were asked specific questions about their current activities. Table 21 below illustrates the distribution of work activities at the two CONCERN centers among the women interviewed.

Table 21 Current Work Activities at CONCERN Projects

Work Activities	Number of Women Sampled	Percent of Total Sample
Paper bag and notebook making	18	(43.9)
Bamboo, cane work	10	(24.4)
Rope making	3	(7.3)
School, clinic workers	3	(7.3)
Fish net making	2	(4.9)
Wood work	2	(4.9)
Pastry box making	1	(2.4)
Kitchen worker	1	(2.4)
Sweeper	1	(2.4)
Total	41	(99.9)

In addition to being asked what work they were currently doing, the women were also asked what type of work they had previously done at the CONCERN center. Previous activities included all of the above activities and in addition, tailoring, weaving, knitting and plastic work. It should be noted that

the above table does not necessarily represent the overall distribution of work activities among all of the women working with CONCERN. Each work center (of the six run by CONCERN throughout the country) involves women in different activities according to their work orders. Since products made in CONCERN work centers are usually for local consumption, seasonal changes in demand affect work orders.

Entry into employment in Food for Work

There are a number of factors which influence a woman's decision to become involved in FFW employment. How women learned about the opportunity for FFW employment, their reasons for working, and the reactions of their families and neighbors to their working were all issues that were explored in the interview.

Modes of learning about FFW employment. Each woman was asked how she had learned about FFW employment and Table 22 on page 43 illustrates the sources of information about FFW.

Table 22 **How Women Learned About FFW
Employment Opportunities**

Source of Information	CARE		CONCERN		RDRS		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
From project officials	181	(60.7)	10	(24.4)	9	(56.2)	200	(56.3)
From other working women	36	(12.1)	15	(36.6)	0	(0.0)	51	(14.4)
From gang leaders	41	(13.8)	0	(0.0)	0	(0.0)	41	(11.5)
From other persons	26	(8.7)	2	(4.9)	4	(25.0)	32	(9.0)
"I learned of it myself"	14	(4.7)	14	(34.1)	3	(18.7)	31	(8.7)
Total	298	(100.0)	41	(100.0)	16	(99.9)	355	(99.9)

Chi-square significant, $p < .0001$

The fact that none of the RDRS women had learned of the work through other working women is understandable because the RDRS program is a new one, with no women having done this type of work previously in that area. The meaning of "I learned of it myself" is somewhat unclear. This response was included because it was encountered a number of times during the pre-testing. When women who gave this response were pressed for a more explicit answer, they were not able to give one, and again just stated that they had learned of it themselves. It is possible that what they meant was that they heard about the work when they made efforts on their own to find work. Further analysis showed that women who had earthmoving experience of one year or more were more likely to have learned of the work through gang leaders than women with no previous working experience (Chi-square significant, $p < .0001$). This finding is as would be expected, as women who did not have previous experience would presumably have less opportunity to know gang leaders from previous years.

Further analysis revealed that women over age 19 were more likely to be knowledgeable about whether there was women's representation on the project committee (Chi-square significant, $p < .05$). There also appear to be some regional differences. Women workers in the Rangpur/Dinajpur area were more likely to state that there were women on the project committees (Chi-square significant, $p < .0001$), and they were more likely to know the women on the committees (Chi-square significant, $p < .01$). Women in the Jessore/Khulna area were less likely to know anything about women on the committees, and even when they did know that women were on the committee, they were the least likely to know the women on the committee.

It is encouraging that almost 80% of the women involved in earthmoving had some knowledge of the project committee. However, it is somewhat discouraging that only 52% of the women had knowledge that there were women on the committee, and that only 15.4% had been helped by the women committee members.

The women were also asked if it had been necessary for them to pay someone (in either wheat or money) in order to work. None of the women in CONCERN or RDRS projects reported having to pay a bribe, and of the women in CARE projects, only four reported having paid a bribe to gang leaders, and one reported that she would later have to pay a gang leader for the privilege of having worked on the project. It is interesting that none of the CARE women reported having to pay a bribe to the members of the project committee. It is possible that more women have to pay bribes but were afraid to state this openly. It is more likely, however, in the opinion of the authors, that the payment of bribes to work on FFW projects is rare. The potential for "diversion" and profit making on earthmoving projects is so enormous that exacting payments from each women worker is a far less efficient method of making a profit than the other methods available.

Reasons for Participation in FFW. Once a woman has learned of the opportunity to become involved in FFW she must be willing to leave the *bari*. The participation of women in paid employment outside the *bari* or household compound is not a traditional role of women in Bangladesh. Table 24 below shows the answers to our question asking the women why they had come for FFW employment.

Table 24 **Reasons for Participation in FFW**

	Number	(Percent)
No food at home ; need to feed children	284	(80.4)
Husband or other family members encourage women to work	43	(12.2)
Government encourages women to work	20	(5.7)
Money needed	6	(1.7)
Total	353	(100.0)

Further analysis showed that there are no significant differences in reasons for working according to whether a woman was working with CARE, CONCERN or RDRS. As might be expected, women from larger families were more likely to give as their reason for working the fact that either their husbands or other family members wanted them to work. The 20 women who stated as their reason for working that "The government wants me to work" had the lowest average family size of all responses (significant, $p < .01$).

There were also significant differences in the responses to this question according to who was the head of household. Women who were the highest earner in the family were more likely to give as their response that the food was needed at home, whereas women from families with a male head of household were most likely to cite family encouragement for their working (Chi-square significant, $p < .0001$).

The responses to this question support the findings that women who do FFW come from a very needy group. Over 80% of the women cited as their reason for working the need for food. A response that money was needed probably indicates that the woman planned to sell most or all of her wheat earning, which usually would be done only if the wheat was not needed for family consumption. Only 26 women (7.4% of the total) gave as their reasons for working responses that reflect relatively less pressing economic need, such as "The government wants me to work," or "I need money." These findings not only indicate that participation in Food for Work reflects great economic need, but also that FFW employment is recognized by women workers and their families as an important source of much-needed food.

Familial and neighborhood response to women's employment.

A common assumption in Bangladesh is that women who work outside their *bari* (household area) encounter considerable opposition and criticism from members of their families and neighborhoods. To explore this issue, we asked the women workers what people in their *baris* and *paras* (neighborhoods) said about their working. Table 25 below shows the distribution of responses to this question.

Table 25 **Reactions of Families and Neighbors to
Women's Participation in FFW**

	Reaction of Families as Reported by Workers		Reactions of Neighbors as Reported by Workers	
	Number of Women	(Percent)	Number of Women	(Percent)
Employment criticized	28	(8.2)	66	(18.6)
Employment tolerated	128	(37.3)	164	(46.2)
Employment supported	187	(54.5)	125	(35.2)
Total	343	(100.0)	355	(100.0)

Note : Several points must be noted about this table. First, in the case of women in the CARE projects, the question referred to their doing earthmoving, in the case of the women working with CONCERN and RDRS, the question simply referred to their working. Secondly, the total for *bari* members of workers is lower than for *para* members because 12 women said they had no one in their *baris* and therefore they did not respond to this question. Thirdly, the possible responses to these questions on the interview format were more numerous than the three categories given here. To make this table more interpretable and to reduce interviewer bias, the following possible responses to questions 15 and 16 were combined. Responses 1 and 6 were combined to make the category of "Employment criticized ;" responses 3, 4 and 7 were combined for "Employment tolerated ;" and responses 2 and 5 were combined for "Employment supported."

Table 25 presents several interesting and important findings relating to the employment of women in Bangladesh. First, given traditional ideas about the proper role of women in Bangladesh, it was expected that a significant number of women would report that they had been subjected to criticism for working, and that their employment would be viewed as a disgrace to the family. It is in this context that many writers have referred the "stigmatization" of employed women in Muslim cultures. The findings of this study, however, reveal that the number of women who report having experienced opposition to or criticism of their employment is relatively small. Second, the families of women workers are apparently more tolerant and accepting of women's employment than are their neighbors. The majority of women who stated that their families supported their working also indicated that it was because the family needed the food. Neighbors may not be as knowledgeable of or sympathetic to the economic pressures facing other families, and therefore may be less apt to support the employment of women. It is significant to note, however, that even in the case of neighbors, less than twenty percent of the women reported criticism of their employment.

The development of centralized workplaces for women in developing countries has been suggested by some researchers. This concept has been received with enthusiasm by development planners in Bangladesh, who have assumed that women who work in such workplaces would experience less criticism and "stigmatization" than women who work in publicly exposed worksites. If this were an important factor, it would be expected that women working at the CONCERN centers would encounter less opposition from their families and neighbors because these women are not as exposed to public view as are the women working for CARE and RDRS. However, further analysis of data revealed that there are no significant differences in the pattern of responses to these questions between the CARE, CONCERN, and RDRS workers. This finding suggests that the critical factor which influences familial and neighborhood response to women's employment may not be the type or location of work but rather the degree of economic need present in the families of women workers. Furthermore, these findings suggest that, contrary to traditional assumptions, women who work outside the household compound are not stigmatized as a result of their employment.

In a question that related to this issue, women were asked if anyone had tried to prevent them from working, or if anyone made it difficult for them to work. This question was included because there have been reports of women being prevented from working on earthmoving projects in order that men could take their places. Only 20 women (5.6% of the total) responded positively to this question; all of these women were working on the CARE earthmoving projects. It is possible that there is more prevention of women working than this figure shows...if a woman had been successfully prevented from working on an earthmoving project, she would not have been there to be interviewed. A closer analysis of the results showed that women reported that family members, relatives or neighbors were the ones who had tried to prevent them from working. No women reported that project officials or religious leaders had tried to prevent them from working. Comparing these findings to the

findings reported in Table 25, we find that while 28 women reported that family members objected to their working, only nine women reported that family members had tried to prevent them from working. Thus, while there are clearly some families who continue to object to the employment of women outside the *bari*, they represent only a very small minority of the families of these employed women.

Participation in FFW Working Conditions

In this section, such factors as mode of travel to the worksite, the involvement of migrant workers, how many days per week women are employed, organization of the work, specific issues such as childcare arrangements, ownership of the baskets and spades needed for earthmoving, and the difficulties encountered by women workers are discussed.

Travel to worksite. During the course of our pre-testing of the interview format, we visited one worksite where many of the women had come in a truck provided by a contractor. They had to pay 25% of their daily earnings to ride in this truck, but they lived too far away from the worksite to come by foot. This project was not a specific women's project but rather a regular project with several hundred women employed along with several hundred men. Because of this experience we decided to include a question relating to the method of transportation to the worksite. Of the 298 women doing earthmoving, 295 stated that they walked to the worksite; 1 stated she came by bus, and 2 came by bullock cart.

Each woman was asked how long she spends traveling from her home to the worksite, and Table 26 on page 51 shows the distribution of responses to this question.

Table 26 **Travel Time from Home to Worksite**

Travel Time	CARE		CONCERN		RDRS		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Less than ½ hour	47	(15.9)	16	(39.0)	11	(68.8)	74	(21.0)
½ hour to 1 hour	105	(35.6)	22	(53.7)	4	(25.0)	131	(37.2)
More than 1 hour, up to 2 hours	81	(27.5)	3	(7.3)	1	(6.3)	85	(24.1)
More than 2 hours	62	(21.0)	0	(0.0)	0	(0.0)	62	(17.6)
Total	295	(100.0)	41	(100.0)	16	(100.1)	352	(99.9)

Chi-square significant, $p < .0001$.

This table shows that as a group, the women working for RDRS spend the least amount of time on commuting to work, whereas the women doing earthmoving for CARE spend a considerably longer time commuting. Almost half of the CARE women (48.5%) must spend more than one hour to come to the worksite, which means that they spend more than two hours daily simply walking to and from work. Only three CONCERN women (7.3% of the CONCERN women) spend an equivalent amount of time traveling each day, and only one RDRS woman. The demands on the time of rural Bangladeshi women are considerable, even for those women who do not go beyond their *bari* for work.¹ Women doing earthmoving not only spend the day doing hard physical labor, and also have household duties to perform when they return home, but also must spend a considerable amount of time in transit. In fact, 62 women (21% of the CARE women) reported spending more than four hours each day traveling to and from work. This finding is supported by the field observations of the authors,

¹The literature review, Appendix C, includes a more thorough discussion of the time spent working by Bangladeshi women.

who talked to many women, both during the pre-testing and during the actual interviewing, who stated that they have to leave their *baris* every day before the sun rises and by the time they return home the sun has already set.

Migrant Workers

There have been reports in the past that many of the women working on earthmoving FFW sites have been migrant workers, that is, women whose homes are so far from the worksite that they are unable to return home each night and must live temporarily away from home in order to work. The findings of this study do not support these reports. Of the 11 worksites visited, migrant workers were observed at only two worksites, at Satkhira thana in Jessore and at Lalmonirhat thana in Rangpur. At Satkhira, of the 28 women included in the sample, two (7.1%) were migrant workers; at Lalmonirhat, of the 20 women in the sample, two (10%) were migrant workers. Overall, of the 298 women interviewed doing earthmoving, only 1.3% were migrant workers. There are several reasons why we found such a low rate of migrant workers compared to past reports. Women's projects are supposed to be designed so that they are near villages and within reasonable traveling distance. The low rate of migrant workers found in our study suggests that this is actually occurring. There are also more earthmoving projects for women to be involved in throughout the country than in the past. In addition to the special women's Food for Work projects there are also the earthmoving projects sponsored by the late President Zia's canal digging program.

Time Spent Working

When women were asked how many days per week they work, 85.3% of the women doing earthmoving stated that they work seven days a week. Of the remaining women, 12.4% worked four to six days weekly and only 2.3% worked one to three days weekly. This is as would be expected since, typically, earthmoving projects are in operation every day of the week because the work is seasonal and will only last several months.

During the pre-testing of the interviewing format, we decided not to ask women about the exact number of hours they work per day. This was because this type of question seemed to elicit unreliable information. Women involved in earthmoving usually responded that they work all day, but on the basis of our observations there is considerably more variation in the length of the work day than this type of response indicates. In general, formal hours of starting and stopping work did not seem to be observed. Some women come to work earlier than others, some work later than others, and there is a certain amount of coming and going throughout the day. A woman who worked a long work day one day might work only a few hours the next day if she had a sick child or some other responsibility at home.

All 16 of the RDRS women stated that they work seven days a week. The CONCERN work centers are open only six days of the week, and therefore all of the women working with CONCERN work a maximum of six days per week. The women who work at the CONCERN work centers maintain fairly regular working hours from approximately eight in the morning until two in the afternoon. They work only a half day on Fridays. At the end of the day, all the CONCERN women leave the center at the same time; in contrast to this at the CARE earthmoving projects no fixed pattern was observed. The RDRS women work on their own and seem to be able to set their own hours since they do not work in gangs nor do they work at a work center.

Organization of the Work. Although some differences were observed from one project site to another, there are certain similarities between all earthmoving projects. In the 1980-81 work season, all women's projects monitored by CARE were road building projects. These roads are typically being built across a field where previously there had been no road. The work basically consists of digging earth up in one location and moving it to another location. Earthmoving is not an activity

restricted to Food for Work projects in Bangladesh—earthmoving is a very common activity necessary not only in road building but also in agriculture, canal and tani digging, house building, and so on. Earthmoving is such a common sight in Bangladesh that at times one wonders if there is any earth in Bangladesh that has not been moved from some other location by human labor.

Earthmoving work, whether performed by men or women, follows a basic pattern. Workers work in gangs of varying sizes, from four in a gang to ten or twelve. Some members of the gang dig up the earth with spades and put it into baskets; others carry the baskets to the site where the road is being built and deposit the earth. At most of the women's FFW earthmoving sites, the work gangs were fairly small with four to six women working in a gang. Each gang has a gang leader, or *sardarni* who supervises the other women. Seventy-seven, or 25.8%, of the women interviewed stated that they were *sardarnis*. This may be a slight over-representation in our sample, although we frequently saw work gangs of four women, one of whom was considered the gang leader. All of the *sardarnis* we interviewed were women doing earthmoving work along with their co-workers. In a few project sites, we observed women (usually relatives of the project committee members) who were supervising the women by watching the women work. They did not actually participate in earthmoving work, and when we talked with them informally, they seemed to be figureheads with no real function other than to collect a share of wheat. Most of these women that we observed were related to project committee members. These women were not included in the sample.

The gang leaders tended to be slightly older than their co-workers (Chi-square significant, $p < .05$) but they did not have more work experience than the other women. There are differences in the percentages of *sardarnis* interviewed depending on the part of the country where the interviewing was conducted. The projects monitored by the CARE unit office in Comilla had the lowest percentage of women gang leaders, while those

under the CARE unit office in Khulna had the highest percentage (Chi-square significant, $p < .0001$). We believe this finding supports our field observations that the projects in the Comilla area tended to have larger work gangs, while those in Rangpur and Khulna had smaller work gangs, and therefore a higher number of *surdarnis* working on the project.

Women working on the CARE earthmoving sites were asked how they had obtained the *tukri* (basket) and *koḍal* (spade) which are used to move earth. The majority of workers (87.0%) stated that the basket they were using was owned by either them or their families and a somewhat smaller majority (58.9%) stated that their spades were owned by themselves or their families. The remaining women stated that they were either borrowing this equipment or renting it, usually for a payment of wheat.

There have been reports of project committee members renting baskets and spades to workers for exorbitant fees but this is not substantiated by our findings. No women stated that they had received their baskets from project officials, and only six women stated that their spades had been supplied by project officials. These six women also stated that there was no payment associated with using a spade supplied by the project officials.

Child care arrangements. As in most countries of the world, women in Bangladesh who are employed outside their homes must make arrangements for the care of their children while they are working. Although this is not the case at all earthmoving sites, at some we observed numerous children who had been brought to the worksites by their mothers. Table 27 on page 56 shows the different child care arrangements made by women working at the different types of projects.

Table 27 **Child Care Arrangements**

	CARE		CONCERN		RDRS		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Children cared for at home	116	(52.0)	5	(12.5)	5	(31.3)	126	(45.2)
Children brought to worksite	37	(16.6)	16	(40.0)	7	(43.8)	60	(21.5)
Children are adult age	70	(31.4)	19	(47.5)	4	(25.0)	93	(33.3)
Total	223	(100.0)	40	(100.0)	16	(100.1)	279	(100.0)

Chi-square significant, $p < .05$.

Several points are noteworthy about this table. Based on observations of the authors, the earthmoving sites are the least suitable for children. There is no shelter or shade, no special facilities for children, and there is a certain amount of danger at the worksite as the earth is dug up with sharp spades.¹ Apparently the women doing earthmoving agree with this assessment as they are the least likely to bring their children along with them when they come to work.

The CONCERN worksites have special facilities for children, with nurseries for the young children and schools for the older children in the same location as the work centers for the women. Thus it is not surprising that so many CONCERN women bring their children to the work center. The authors observed that many of the RDRS women were assisted in their work by older children, who help with fetching water and tending the trees.

¹The authors on several occasions saw women who had been injured by the spades.

During the pre-testing, we experimented with asking the women the ages of their children. This proved to be excessively time consuming as very few women know either their own ages or those of their children. As can be noted in the interview format, women were asked how many living children they have, and how many of the women have children living with them currently. However, this question about child care probably provides the best indicators of the number of women whose children are adult age.

One of the reasons given by Bangladeshis, especially those in rural areas, for having many children is so that children will care for their parents when the parents are older. It is interesting to note, therefore, the fact that one third of the women employed in FFW with children have adult children. The fact that so many of these women are not able to rely on their children for support but must seek employment outside their home suggests that current economic pressures in Bangladesh are changing traditional family customs.

Difficulties Related to Participation in Food For Work

In the interview, the women were asked what difficulties they face while working (see page 4 of the interview form). The possible responses were not read to the women, but rather the interviewers waited to see what responses the women gave, and then marked the various answers given. In some cases the women seemed very reluctant to give an answer, and simply said there were no problems. The interviewers were instructed to repeat the question if this happened. Finally, if the women still said there were no problems, the interviewers asked if it were not a problem that there was no toilet or latrine nearby. In many cases women responded positively, as if they were not exactly sure that something of this nature would really be considered seriously by the interviewer, and then went on to list several other problems.

We believe that the hesitancy to give a response in some cases may be due to the fact that members of the project committee had instructed women to say that they had no problems. An

additional factor influencing the pattern of responses is the interviewer. One interviewer had a general tendency to probe more deeply when questioning the women, and the women she interviewed tended to report a higher number of problems on the worksite. This indicates that if all the interviewers had probed more thoroughly, these problems would probably have been cited by more women more frequently. We also believe that some of these women lead such a hard life that what appears to be a problem for researchers, such as the lack of drinking water, is so much a part of normal life that it is not unique to working on FFW, and thus did not seem worthy of mentioning in the interview.

The distribution of the various responses is given in Table 28 below. It should be noted that women could give more than one response. The high frequency of mentioning the lack of a toilet is partly because this is a real problem, and partly because this is the response mentioned by the interviewers as a possibility if the women gave no response spontaneously.

Table 28 Problems Encountered at the Worksite

Problems Stated by the Women	Number of Women Giving Response	(Percent)
No latrine nearby	218	(61.4)
No water or tubewell nearby	165	(46.5)
The work is hard and tiring	86	(24.4)
I feel hot while working in the field	86	(24.4)
No place to eat or no food stall nearby	59	(16.6)
I cannot get my housework done because I am busy working all day	45	(12.7)
I worry about my children at home	42	(11.8)
My workplace is too far from my home	39	(11.0)
There is no time to eat or rest during work	20	(5.6)
Men tease women workers	13	(3.7)
The supervisors or gang leaders bother us	5	(1.4)

Especially when interviewing women working on CARE earthmoving projects, the authors and the interviewers shared many of these problems. The lack of toilet facilities was also a problem for us. We did not feel the lack of water to be such a problem, only because we brought plastic water containers with us.... a luxury not available to the women workers. We, too, found the work "hard and tiring" and we felt "hot while working the whole day in the field." Perhaps the most surprising thing to us was that more women did not give these responses which to us seemed so self-evident.

Women working on the CARE earthmoving projects more frequently cited these various problems. None of the CONCERN women stated that the lack of a toilet was a problem because all of them work in the CONCERN work centers where there is a toilet in each compound. Also, none of the CONCERN women mentioned the lack of water, as water is readily available within the work center. Compared with the women doing earthmoving, relatively few women working at the CONCERN centers or doing tree tending with RDRS stated that they found the work hard and tiring (Chi-square significant, $p < .01$). There was a similar correlation with "feeling hot," with this being a problem for both the CARE and RDRS women, both of which groups work outside, and not a problem for the CONCERN women who work indoors (Chi-square significant, $p < .01$). All of the 13 women who stated that men tease women were working on CARE earthmoving projects.

Wheat Earnings of Women in FFW

The following section deals with the frequency of payments received, women's knowledge of the amount to which they are entitled, their actual earnings, the quality of the wheat received, and women's use of their earnings.

Frequency of wheat payments. The pattern of payments varies considerably between CONCERN, RDRS and CARE FFW projects. The CONCERN centers are organized such that women

are supposed to be paid regularly every Saturday. When asked, these women confirmed that they receive wheat payments every week. On the other hand, RDRS pays their women on a monthly basis, and the women working for RDRS confirmed this by stating that they are paid once each month. There is considerable variation in the frequency of payments to women doing earthmoving, however, and Table 29 below shows the distribution of answers to this question.

Table 29 **Frequency of Payments to Women
Doing Earthmoving**

	Number	(Percent)
Less frequently than once a week	7	(2.3)
Once a week	114	(38.3)
Twice a week	41	(13.8)
Three or more times a week	40	(13.4)
Do not know	41	(13.8)
No response	55	(18.5)
Total	298	(100.1)

Women doing earthmoving were also asked when they had last received payment, and Table 30 below shows the distribution of answers to this question.

Table 30 **Date of Last Wheat Payment to
Women Doing Earthmoving**

	Number	(Percent)
One to three days previously	112	(37.6)
Four days to a week previously	78	(26.2)
Two weeks previously	4	(1.3)
No payment as yet	34	(11.4)
Cannot remember	15	(5.0)
No response	55	(18.5)
Total	298	(100.0)

Although there was variation in frequency of payments from one project site to another, this is partly due to variations in the supply of wheat. The local project officials receive wheat from centralized government warehouses, and these local officials often experience irregularities in the disbursement of wheat, which in turn affects when payments can be made to the women workers.

Payment regulations. Although the CARE, CONCERN and RDRS Food for Work projects share the similarity of being programs in which women receive wheat in payment for work performed, they are distinctly different in other ways. The wheat used for payment on earthmoving projects is donated by the government of the United States of America. These projects are implemented by CARE and by local project committees sponsored by the Ministry of Relief and Rehabilitation of the Government of Bangladesh. The official rate of payment for women doing earthmoving on FFW projects is a base rate of three *seers* of wheat (approximately six pounds) for moving 50 cubic feet (cft) of earth plus a small additional amount (called "allied factors") depending on the conditions at each site, such as the type of soil, the distance and height that the earth must be moved, and other factors. At most projects visited as part of this study, the average payment rate was 3.3 *seers* of wheat for moving 50 cft of earth. The official payment rate on men's projects is three *seers* of wheat for moving 70 cubic feet of earth, plus allied factors.

The CONCERN Women's Training Centers receive wheat donated by the World Food Programme and administered by the Ministry of Relief and Rehabilitation under a different program than the regular Food for Work projects. These projects are part of a "vulnerable group feeding" program in which women who meet certain eligibility requirements are given eight *seers* of wheat weekly. Vulnerable group feeding programs tend to be primarily relief-oriented, though CONCERN is to be commended for teaching women work skills in addition to distributing wheat, and for providing the wide range of additional services

found at their work centers. Although the pay seems quite low, it should be noted that these women do not work a very long work day, they have numerous ancillary services, and they share in whatever profits are generated by the sale of the goods they make.

The women doing tree tending, work in a project funded by the Rangpur Dinajpur Rehabilitation Service, which is sponsored by the Lutheran World Service. RDRS implements government approved projects but RDRS provides all resources, including the wheat payments, from its own budget. Therefore, RDRS is free to set their payment rates at what is believed to be a fair payment, five *seers* of wheat per day.

In order to insure that one's wages are correct, it is obviously necessary to know the correct rate of payment. Each woman interviewed was asked if she knew what her correct payment rate should be "according to the rules." All of the women working for CONCERN and for RDRS were aware of the correct payment rate. However, less than 20% of the women doing earthmoving knew the correct payment rate of 3.3 *seers* of wheat for 50 cft of earth moved. Table 31 on page 63 shows the distribution in workers' responses to this question according to location of the CARE unit office monitoring the project where they were employed.

Table 31 Earthmoving Workers' Statements Regarding Correct Payment Rates on CARE Projects

Amount of Wheat	Comilla		Khulna		Rangpur		Total	
	Unit Office No.	(%)	Unit Office No.	(%)	Unit Office No.	(%)	No.	(%)
Less than 3 <i>seers</i> daily	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
3 to 3½ <i>seers</i> daily	9	(10.2)	3	(2.6)	0	(0.0)	12	(4.0)
4 <i>seers</i> or more daily	37	(42.0)	3	(2.6)	2	(2.1)	42	(14.1)
3 <i>seers</i> for moving 50 cft earth	3	(3.4)	42	(36.8)	81	(84.4)	126	(42.3)
More than 3 <i>seers</i> for moving 50 cft of earth	7	(8.0)	44	(38.6)	7	(7.3)	58	(19.5)
Some idea that payment is related to earthmoving, precise amounts unknown	18	(20.5)	10	(8.8)	3	(3.1)	31	(10.4)
Do not know	14	(15.9)	12	(10.5)	3	(3.1)	29	(9.7)
Total	88	(100.0)	114	(99.9)	96	(100.0)	298	(100.0)

Chi-square significant, $p < .0001$.

Women at each project site gave answers similar to those of other women at the same worksite, although not all gave the same answer. For example, of the 33 women interviewed at Kaliganj, monitored by the Khulna unit office, 26 stated the payment rate to be more than three *seers* for moving 50 cft, four state the payment rate at three *seers* for 50 cft, one woman thought it was more than four *seers* for each day of work, and two women did not know the pay rate.

Since the technically correct answer is "more than three *seers* for moving 50 cft", it can be seen that the women working at projects monitored by the Khulna unit office were considerably better informed than at the other locations. Furthermore, although almost all the women in Khulna and Rangpur

districts know that the payment is somehow related to the amount of earth moved, more than half of the women working in the Comilla district thought that the payment rate was based on a daily wage. The findings in Comilla are similar to our observations during the pre-testing of the interview format. Of the women working in the Dacca area who were interviewed during the pre-testing, the majority thought the payment was a daily wage, rather than related to work output.

What are the factors that contribute to workers' knowledge of the correct payment? All projects are required to post a signboard stating the correct figure for that project and signboards were observed at most of the projects we visited. However, since only 17 (5.7%) of the women doing earthmoving stated that they could read, the usefulness of a signboard is questionable. Women who were gang leaders were more likely to know the correct pay rate (Chi-square significant, $p < .001$), and workers who knew that there were women on the Project Implementation Committee were more likely to know the correct pay rate (Chi-square significant, $p < .0001$).

It has been alleged that project officials sometimes lure women to project sites by telling them they would receive high rates of pay, paying the women at this rate for the first few weeks, and then gradually reducing the payment rate. It was not uncommon for women at worksites to approach us as soon as we arrived and make complaints of this nature. Our quantitative data support these impressions, for women who had been working for only a few weeks tended to state higher payment rates, while women with more experience were more likely to know the correct amount (Chi-square significant, $p < .0001$). Another contributing factor to knowledge of correct pay is whether other members of workers' families were also involved in FFW. Women who stated that others in their families were doing FFW were significantly better informed than women who were the only ones in their families doing FFW (Chi-square significant, $p < .0001$).

Wheat payments received by women employed in Food for Work. Variation in actual payment received was a problem at the earthmoving projects monitored by CARE, and was not a problem at either the CONCERN projects nor the RDRS project. All of the women working for CONCERN and RDRS stated that their actual wages received were the same as the official payment rate. The following discussion of variation in wheat payments will therefore be restricted to the women employed on CARE monitored earthmoving projects.

Table 32 below shows the distribution of responses regarding the actual payment received given by women working at projects monitored by the three different CARE unit offices.

Table 32 Daily Wheat Earnings at CARE Earthmoving Projects

Daily Earnings	Comilla		Khulna		Rangpur		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Less than 2 <i>seers</i>	9	(10.2)	4	(6.1)	16	(22.9)	29	(12.9)
2 to 2½ <i>seers</i>	41	(46.6)	12	(18.2)	10	(14.3)	63	(28.1)
3 to 3½ <i>seers</i>	26	(29.5)	28	(42.4)	12	(17.1)	66	(29.5)
4 or more <i>seers</i>	9	(10.2)	21	(31.8)	30	(42.9)	60	(26.8)
Do not know	3	(3.4)	1	(1.5)	2	(2.9)	6	(2.7)
Total	88	(99.9)	66	(100.0)	70	(100.1)	224 ^a	(100.0)

Chi-square significant, $p < .01$

^aThe total number of cases is smaller than the total of 298 women doing earthmoving for several reasons. First, no payment had yet been received by workers at the project in Kaliganj, monitored by the Khulna unit office. Secondly, careful analysis revealed some inconsistency in the responses recorded at certain sites by one interviewer. These responses are not included in this table nor the analysis regarding actual payment received.

The mode (category with the most numerous responses) was as follows for each unit.

Comilla :	2 to 2.5 <i>seers</i> per day
Khulna :	3 to 3.5 <i>seers</i> per day
Rangpur :	4 or more <i>seers</i> per day

By using the midpoints of the payment categories as reported by the women interviewed, it is possible to calculate the mean (average) payment per worker.¹ The average payment received also varied considerably according to unit :

Comilla :	2.69 <i>seers</i> per day
Khulna :	3.28 <i>seers</i> per day
Rangpur :	3.13 <i>seers</i> per day
Overall :	3.00 <i>seers</i> per day

The greatest variation in payments was seen in Rangpur where there is a bimodal distribution of low payments reported by women at some projects and higher payments reported at other projects. (See Table 32 on page 65 for distributions by unit.)

What are the factors which help explain the differences in pay? As might be expected, the *sardarnis* (gang leaders) received higher pay than did other workers (Chi-square significant, $p < .01$). Women who were familiar with the project committee structure and who knew the women on the project committee were more likely to receive higher pay (Chi-square significant, $p < .05$). Women who were formerly married (those who were widowed, divorced or deserted) reported receiving higher pay than currently married or never married women (Chi-square significant, $p < .05$). Women who reported that they or another women were the head of the household reported earnings higher than women who came from families with a male head of household (Chi-square significant, $p < .05$).

¹This is not a precise average, but through the conversion of the ordinal scale to an interval scale, a statistically reliable indicator of average payments can be calculated.

A comparison of Tables 31 on page 63 and 32 on page 65 reveals a critical problem : even when women know approximately the correct payment rate, they do not necessarily receive these wages. The reasons for this are complex and the following discussion is based on the authors' observations in addition to the data which was collected. At a number of sites visited, women workers not included in the sample approached the interviewers and the authors and complained bitterly that they were receiving low wages.

We believe that a major problem is that very few women actually understand the correct payment rate. Many women who were able to state the payment rate at three, or more than three *seers* of wheat for moving 50 cft of earth were, when asked, unable to state how much 50 cft of earth represented. We encountered a few women who were able to state that 50 cft was a pit measuring 5 feet by 10 feet by 1 foot, but when we asked them to show us how long 5 feet was, they gave widely varying and inaccurate answers. The majority of women, however, had no idea how to measure 50 cft, either precisely or even approximately.

This illustrates a problem commonly encountered in foreign aid and development programs. In this case, the governmental agency representing the foreign donor government (USAID), the foreign private voluntary organization implementing and monitoring the program (CARE), and the government ministry representing the recipient government (Ministry of Relief and Rehabilitation of the Government of the People's Republic of Bangladesh) have devised a payment formula which is complex to calculate and varies at different project sites because of the "allied factors". As a result, many of the workers, who are intended as the primary program beneficiaries, do not understand their correct wage. This is inappropriate from a sociological and educational point of view. The wages received and the workers' perceptions regarding their wages are very different from what was intended by the program planners.

Not all the problems in this and other aid programs, however, are those of misunderstanding. Some of the problems are created by misallocation and corruption in foreign aid programs. Even those workers who understand the complex wage formula may not be in a position to demand the correct payment. This problem was illustrated at one project site visited, where a gang leader had a wooden pole which she stated had been supplied by the secretary of the Project Implementation Committee. This pole was five feet in length and had markings to indicate one foot and two feet. The woman demonstrated to us that she knew how to measure a pit equaling 50 cft, either by showing us a pit 5 feet by 10 feet by 1 foot or a pit 5 feet by 5 feet by 2 feet deep. This was a very encouraging sign and shows that if such poles were supplied and the women taught how to measure, they would have a better idea of how much wheat they are entitled to receive. However, the women at this project site stated that even when they thought they had dug 50 cft of earth, the project officials on the payment and measurement days told them they had dug less, and therefore the women received less wheat than they believed was the correct amount.

Based on the findings of this study and on the observations of the authors, we believe that a payment rate based on a daily wage rather than on the amount of earth moved would result in less varied, more accurate payments to women workers. It must be remembered that about 95% of these women are illiterate and for many it is their first employment outside the home. A wage rate based on a measurement that none of the women truly understand is obviously one which facilitates the underpayment of workers. Women who work for CONCERN and RDRS, who are paid on the basis of a daily rate, understand what their payment should be and state that they do receive this payment. The women doing earthmoving deserve the same equitable and easily understood wage rate. This could easily be accomplished by measuring the average amount of earth that

women are able to move in one day and paying all women this daily wage. As a matter of fact, it is clear that this is already happening, although it is not officially sanctioned. Many women believe that their wages are calculated on a daily basis, and they report their earnings in terms of a daily wage. If all women in Bangladesh knew that they would be paid three *seers* (or more) per day on Food for Work projects, they would understand this wage rate and would be in a position to demand their fair wages more successfully than when they do not understand their own wage rates.

Underpayment of FFW laborers, both men and women, has been alleged to be frequent and widespread. The findings of this study do not support allegations of large underpayments. Since the correct payment at most projects is 3.3 *seers*, and since the overall average payment was calculated to be 3.00 *seers*, this is an underpayment rate of 9% which is high but not as high as some field reports.

The authors must express some uncertainty regarding the reliability and accuracy of this data. At most of the projects we visited, project officials had heard of our coming in advance or learned of it very soon after our arrival.¹ We observed project officials instructing women in what to say to us, and questioning women who had been interviewed about what they had said. Some women reported to us that they had been told that if they complained about low earnings, they would not be allowed to work any longer at the project. Certainly the fact that so many women told us a payment formula (three *seers* for 50 cft earth moved) when they had absolutely no idea what 50 cft meant indicates that some of the answers they gave us were coached. We do not believe that women were coached about other questions because they did not report this to us and

¹It is impossible to keep secret the arrival in rural Bangladesh of a team of five women from Dhaka, especially when one of them is a foreigner.

because the issue of payment and underpayment is a central one in FFW and project officials are most sensitive about this issue.

The amount of earth that women were moving was not measured nor was the amount of wheat they were actually receiving, and therefore a precise and accurate statement of their earnings cannot be made. Our field observations suggest that many women were intimidated and many have overreported their earnings to us. The reader is therefore cautioned against concluding that women doing earthmoving on FFW projects are not underpaid. Our findings reveal an overall average underpayment rate of 9%, with an average underpayment rate of 18% at projects monitored by one unit office. Which, if any, of these figures reveals the true extent of underpayment of women workers is unknown.

Quality of wheat received. The women workers were asked if they weigh their wheat payments after returning to their homes. Table 33 below shows that the majority of women do weigh their wheat.

Table 33 Number of Women Who Weigh Wheat Payment

	Number	(Percent)
Wheat weighed	266	(83.6)
Wheat not weighed	52	(16.4)
Total	318	(100.0)

Note: The total is 318 rather than 305 because the 33 women working at one project had not received any payment at the time of the interview, and because four women did not respond to this question.

Further analysis showed that there was virtually no difference in the rate of weighing wheat between women working on the CARE, CONCERN and RDRS projects. However, older women

were more likely to weigh their wheat (Chi-square significant, $p < .05$). Women who stated that either themselves or another woman was the highest earner in their family were also more likely to weigh their wheat (Chi-square significant, $p < .01$). The most striking correlation discovered was that women were more likely to weigh their wheat the longer they had worked on a CARE earthmoving project. Table 34 below illustrates this correlation.

Table 34 Effect of Experience on Weighing of Wheat Payments for Women at CARE Projects

Number of Weeks at Project	Wheat Weighed		Wheat Not Weighed		Total	
	No.	(%)	No.	(%)	No.	(%)
Less than one week	7	(53.8)	6	(46.2)	13	(100.0)
One to two weeks	44	(72.1)	17	(27.9)	61	(100.0)
Three to Four weeks	91	(88.3)	12	(11.7)	103	(100.0)
Five to Six weeks	32	(82.1)	7	(17.9)	39	(100.0)
Seven to eight weeks	20	(95.2)	1	(4.8)	21	(100.0)
More than eight weeks	23	(92.0)	2	(8.0)	25	(100.0)
Total	217	(82.8)	45	(17.2)	262	(100.0)

Chi-square significant, $p < .001$

This finding is similar to the previously reported finding that women with more experience stated more accurately what the official rate of pay should be. It seems that as a woman spends more time at a worksite, she becomes more stuate

in her assessment of what she should earn and also learns the importance of weighing her wheat to check if she has received the amount she has been told.

Women who stated that they weighed their wheat were asked if they were given the correct amount. It should be noted that this question does not refer to whether a woman received the amount of wheat to which she was entitled but rather if the amount of wheat as measured corresponded with the amount she had been told she was paid. Table 35 below shows the distribution of responses to this question.

Table 35 Wheat Payment Received Verified to be Correct Weight

Weight Correct	CARE		CONCERN		RDRS		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Always	152	(69.1)	7	(21.9)	8	(50.0)	167	(62.3)
Sometimes	55	(25.0)	23	(71.9)	8	(50.0)	86	(32.1)
Rarely or never	13	(5.9)	2	(6.2)	0	(0.0)	15	(5.6)
Total	220	(100.0)	32	(100.0)	16	(100.0)	268	(100.0)

Chi-square significant, $p < .0001$

These findings are somewhat contradictory with our earlier reported findings. It appears that women who work at CONCERN and RDRS are more likely to know what their wages should be, and are more likely to believe that their payments are in line with the regulations. However, they are more likely to believe that the actual amount of wheat received when it is weighed later is not always the correct amount.

What factors can explain this apparent discrepancy? First, as is discussed in the following section, women who work at CONCERN or RDRS are more likely to sell some of their wheat earnings. When women stated that they weighed their wheat, they did not necessarily mean that they have scales at

home to weigh wheat but that their wheat was weighed at some location other than the payment site. Women who sell their wheat usually must rely on the purchaser to provide scales and to verify the amount of wheat received, and obviously the purchaser has an interest in telling the woman she has received less wheat than she has been told.¹ Another factor may be that in the case of the RDRS women, they receive a very large wheat payment once a month, and subsequent weighings, either by the women themselves, or by purchasers, are done through weighing small amounts of the total. This may introduce errors in measurement which cannot be attributable to RDRS.

All women were asked about the quality of wheat they received, and Table 36 on page 74 illustrates the distribution of answers to this question.

¹Prior to the formal interviewing, the authors visited a CONCERN center in Demra where a payment distribution was observed. Men wishing to buy the wheat earned by women were seen just outside the gates of the CONCERN center. These purchasers of wheat were observed by the authors telling many of the women that they had been short-weighed by the CONCERN staff. At the request of the authors, the CONCERN staff checked the accuracy of the scales being used and re-weighed some of the wheat distributions, which proved to have been accurate. It is clear therefore, that even when the wheat payments made by CONCERN staff are completely accurate, outside purchasers may influence the women workers to believe that they have been short-weighed.

Table 36 Quality of Wheat Received

Project Location	Wheat Quality							
	Good		Fair		Poor		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
CARE Comilla	57	(65.5)	26	(29.9)	4	(4.6)	87	(100.0)
CARE Khulna	65	(80.2)	11	(13.6)	5	(6.2)	81	(100.0)
CARE Rangpur	32	(33.7)	25	(26.3)	38	(40.0)	95	(100.0)
CONCERN								
Khulna	16	(76.2)	5	(23.8)	0	(0.0)	21	(100.0)
CONCERN								
Mirpur	3	(16.7)	11	(61.1)	4	(22.2)	18	(100.0)
RDRS	12	(75.0)	4	(25.0)	0	(0.0)	16	(100.0)
Total	185	(58.2)	82	(25.8)	51	(16.0)	318	(100.0)

Chi-square significant, $p < .0001$

This table shows that women who do earthmoving in projects monitored by the CARE unit office in Rangpur and those who work at the CONCERN project in Mirpur are the least satisfied with the quality of wheat they receive. The reasons for this are not entirely clear and probably warrant further examination by the organizations involved.¹ Further analysis also showed that women who came from female-headed households were less satisfied with the quality of wheat received (Chi-square significant, $p < .01$). No other significant relationships were discovered.

¹The wheat donated by the U. S. Government for FFW goes into the general stores of wheat of the Bangladesh Government. The actual wheat received by workers may be U. S. wheat, a mixture of U. S. and Bangladeshi wheat, or all Bangladeshi wheat.

Use of wheat payment. All women who had received a payment of wheat were asked how they used their wheat, and Table 37 below illustrates the distribution of answers to this question.

Table 37 Use of Wheat Earnings

	CARE		CONCERN		RDRS		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
All used for								
household	195	(73.9)	22	(56.4)	0	(0.0)	217	(68.0)
Some eaten								
some saved	11	(4.2)	0	(0.0)	1	(6.3)	12	(3.8)
Some eaten								
some sold	50	(18.9)	17	(43.6)	15	(93.8)	82	(25.7)
All sold	4	(1.5)	0	(0.0)	0	(0.0)	4	(1.3)
Some or all								
loaned	2	(0.8)	0	(0.0)	0	(0.0)	2	(0.6)
Wheat used to								
repay loans	2	(0.8)	0	(0.0)	0	(0.0)	2	(0.6)
Total	264	(100.1)	39	(100.0)	16	(100.1)	319	(100.0)

Chi-square significant. $p < .0001$

Women who save some of their earnings probably plan to use this wheat for household consumption at a later date, and therefore a total of 71.8% of the women were using all of their wheat for household consumption. Furthermore, 97.5% of the women stated that some or all of their wheat was being used for household consumption. This indicates that the earnings of women doing FFW are an important and integral source of family support. This is consistent with our previous findings that these women come from extremely needy families.

This table also shows that more women who work at CONCERN and RDRS were more likely to sell some of their wheat. Several factors may explain this difference. First, as has been noted, the women working for RDRS receive considerably higher wages than do the women at either CONCERN or at CARE earthmoving projects. This higher payment is more likely to result in a surplus of wheat a woman is able to sell. A second important factor may be the intervening variable of marital status. As we have seen, there is a higher proportion of formerly married women (widowed, divorced, deserted) at the CONCERN and RDRS projects, and there is also a significant correlation with being formerly married and selling part of the wheat earnings (Chi-square significant, $p < .0001$). Another correlation that was discovered is the relationship between family size and the use of wheat earnings. Analysis of variance revealed that women who stated that all of their wheat was used for household consumption had significantly ($p < .05$) larger families than women who sold or saved some of their wheat earnings.

Women who sold some or all of their wheat earnings were asked how many *seers* of wheat they sell weekly, and Table 38 on page 77 illustrates the distribution of responses to this question.

Table 38 on page 77 shows that the women working at the CONCERN centers, who earn the least amount of wheat, also sell the least amount of wheat, and women who work for RDRS, who earn the most amount of wheat, also sell the largest quantity of wheat. Of the women doing earthmoving, only 54 (18.1%) sell some of their wheat earnings and 76% of this number sell less than eleven *seers* of wheat per week.

Table 38 Amount of Wheat Sold Weekly

Amount Sold Weekly	CARE		CONCERN		RDRS		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1-5 <i>seers</i>	22	(42.3)	14	(82.4)	0	(0.0)	36	(42.9)
6-10 <i>seers</i>	19	(36.5)	3	(17.6)	0	(0.0)	22	(26.1)
11-15 <i>seers</i>	3	(5.8)	0	(0.0)	1	(6.7)	4	(4.8)
16-20 <i>seers</i>	4	(7.7)	0	(0.0)	0	(0.0)	4	(4.8)
More than 20 <i>seers</i>	4	(7.7)	0	(0.0)	14	(93.3)	18	(21.4)
Total	52	(100.0)	17	(100.0)	15	(100.0)	84	(100.0)

Chi-square significant, $p < .0001$

Women who sold some or all of their wheat earnings were asked how much they earned per *seer* of wheat. The average price received was almost two and a half taka (2.43). This did not vary significantly from project to project. Some women also reported that they ground some of their wheat at home and then sold the ground wheat. Average earnings per *seer* of ground wheat were slightly over three taka (3.07).

Summary

1. Work History :

- a. Women moving earth have had very little experience at this type of employment. A majority have not been employed in FFW previous work seasons, and their experience during the current work season tends to be quite brief.
- b. Women working at the CONCERN work centers, on the other hand, have been employed much longer, with the majority having experience of three years or more.

2. Entry into Food for Work Employment :

- a. The majority of women employed in FFW have learned about the opportunity for employment through project officials.

- b. Over 80% of the women doing FFW stated the major reason for working is that they or their families need food.
- c. The majority of workers' families and neighbors either tolerate or support their working. Active opposition to women working in FFW is very rare.

3. Working Conditions in FFW :

- a. Almost half (48.5%) of women doing earthmoving spend more than two hours each day walking to and from the worksite.
- b. Virtually no migrant workers were observed doing earthmoving.
- c. The majority of women doing earthmoving or tending trees supply their own work tools.
- d. Most women doing earthmoving do not bring their children to the worksite but make child care arrangements at home.
- e. The lack of latrines and water supply were the main problems reported by women doing earthmoving.

4. Wheat Earnings of Women in FFW :

- a. There are considerable regional differences in women's knowledge of payment regulations in earthmoving projects.
- b. Even when women can state the formula for payment (earnings related to cubic feet of earth moved), very few women actually understand how the earth moved is measured.
- c. Women doing earthmoving reported that their average earnings were approximately three *seers* of wheat per day. There is considerable variation in payment at different projects.

- d. A majority of women weigh their wheat, and the longer a woman has worked, the more likely she is to weigh her wheat herself.
- e. Almost 40% of the women state that they are short-weighted on their earnings. Slightly over 40% state that the wheat they receive is of either fair or poor quality.
- f. Virtually all of the women doing FFW use some or all of their wheat earnings for direct household consumption.

CHAPTER 4

Project Officials' Perceptions of Women in Food for Work

Introduction

The focus of this project was to study the women involved in FFW projects, and the findings of our interviews with these women workers are presented in Chapters 2, 3, 5 and 6. At the project sites where the women were interviewed, the authors also conducted loosely structured, open ended interviews with various project officials connected to the projects. A total of 24 officials were interviewed at the CARE earthmoving projects.¹ Only two of the officials interviewed were women, these were the only female project officials observed at the worksites. Eight of these officials were project committee chairmen, seven were other members of the project committees, and nine were government officials including Project Implementation Officers, Subdivisional Relief and Rehabilitation Officers, and one Circle Officer.

Random sampling methods were not used in this portion of the study. The officials who were interviewed were those who came to the project site to meet us and there was no doubt

¹Officials connected with the CONCERN and RDRS projects were also interviewed but this chapter will focus on the interviews with officials connected with CARE earthmoving projects. It should be noted that none of the officials discussed here were CARE personnel.

some selectivity in which officials came to the project sites when we were there and which ones stayed away. At one project site, no officials came to the worksite and therefore none were interviewed. In the opinion of the authors, the data collected in these interviews is of questionable reliability. Some of the officials were evasive and inconsistent in their responses, and at times it was obvious that some officials were prevaricating.

This chapter will be structured in a similar way to Chapter

First, the officials' responses concerning the women workers' participation in FFW are presented. Next, the working conditions as perceived by the officials are described. Finally, various issues relating to the payment of the women workers are discussed.

Participation of Women in FFW

The officials were asked their opinions about women's involvement in FFW. Their responses are presented in Table 39 below. Each official could give more than one response.

Table 39 **Officials' Opinions Regarding Women in FFW**

	Number	(Percent)
FFW is better than begging	15	(62.5)
FFW helps women to be self-sufficient	12	(50.0)
FFW provides incomes for women	12	(50.0)
FFW benefits women as well as the country	10	(41.7)
FFW projects need to be improved	8	(33.3)
The payment rate should be increased	6	(25.0)
FFW should be continued for the benefit of women	6	(25.0)
FFW for women is not a successful program	3	(12.5)

This table shows that for a majority of the officials, women's FFW is seen as an alternative to begging. However, as discussed previously, only 11% of the women workers reported that they resorted to begging during times of hardship. Furthermore, in

spite of traditional norms against the employment of women, these officials clearly recognize the importance and necessity of providing employment and income to needy rural women.

Project officials were asked about the arrangements made to inform women of the opportunity to work on a FFW project. The most common method cited was that announcements were made in village bazaars. Three of the officials specifically mentioned using the women members of the Project Implementation Committees to inform women workers. As discussed previously, women workers reported that they did indeed hear about work opportunities through project officials so the methods used by these officials are apparently successful.

Opinions of the project officials regarding the reasons why women participated in FFW were solicited. Table 40 below presents their responses.

Table 40 **Officials' Perceptions of Reasons for Women's Involvement in FFW**

	Number of Officials	(Percent)
Women have no food at home	12	(50.0)
One person's income is not enough to support the family	5	(20.8)
Women want to be self-sufficient	5	(20.8)
The government encourages women to work	2	(8.3)
Total	24	(99.9)

A comparison between this table and Table 24 on page 46 shows a high degree of consistency between the workers' responses and those of the officials. Both the workers and the officials recognize the need for food as the primary reason for working in FFW. Both groups also mention the inadequacy of traditional methods of family support which formerly protected women from the necessity of seeking outside paid employment.

Working Conditions

Although attendance books are supposedly kept at all project sites these were observed by the authors at only one project. We asked the project officials how many women usually came to work at the project and how many were actually present the day of our interviewing. In addition, we attempted to make an actual count of the number of women present. Because of the commotion created by our presence and the continual movement around a project site, our figures may be slightly incorrect, but we believe that the error rate in our count was no more than two or three percent. Table 41 below presents attendance estimates of the officials compared to our actual count.

Table 41 **Number of Women Present at Worksite**

Location of Project	Number of Women Usually Present (Estimated by Officials)	Number of Women Present (Estimated by Officials)	Number of Women Counted by Authors
Comilla			
Daudkandi	100	100-150	51
Kasba	150	40-50	20
Brahmanbaria	250	200-250	100
Khulna/Jessore^a			
Kaliganj	150	100-150	85
Satkhira	200	100-150	80
Monirampur	100	100-150	68
Rangpur			
Parbatipur	300	200-250	90
Gaibanda	300	200-250	111
Lalmonirhat	200	50-80	20
Pirganj	500	300-400	203

^aFour projects were visited in the Khulna and Jessore area. No officials came to one of these projects while we were there and therefore no data is available about that project.

At every project that we visited, the officials' estimates regarding attendance were higher than the number we counted and in some cases their estimates were several times higher than the reality. This pattern of over-reporting of attendance suggests that officials' documents reporting workers' attendance rates may be considerably over-estimated.

Questions regarding the regularity of attendance and working hours were also asked of the officials. Roughly half of the officials interviewed stated that women were irregular in their attendance. Reasons given for irregular attendance were family problems, workers' dissatisfaction with payments, and the difficulty of the work. The responses regarding working hours varied considerably, even between officials connected with the same project. Some officials stated that there were no fixed working hours, and sometimes even officials on the same project reported different fixed working hours. The inconsistency in answers leads to a conclusion that there are usually no fixed working hours on women's FFW projects.

Women workers were asked what problems they encounter while working, and the project officials were also asked a similar question regarding their perception of the problems workers face. Officials could give more than one response. Their responses are summarized in Table 42 on page 85. The percentage of women workers who cited each of these problems is also given in Table 42 for comparison.

Table 42 Comparison of Officials' and Workers' Perceptions of Workers' problems at FFW Project Sites

	Number of Officials	(Percent)	Percent of Women Who Cited Response
Children disturb women in work ^a	20	(83.3)	(11.8)
Work is tiresome and hard	12	(50.0)	(24.4)
Worksite is too far	11	(45.8)	(11.0)
No shade for the women and their children	10	(41.7)	(24.4)
No latrine nearby	8	(33.3)	(61.4)
No tubewell nearby	8	(33.3)	(46.5)
Men tease the women workers	6	(25.0)	(3.7)

Table 42 shows that workers and officials have widely varying opinions regarding the difficulties associated with earthmoving work. While women's main concerns were with the lack of latrines and water supplies, the officials were more concerned that the women's children prevented them from working. Four of the officials interviewed stated that they did not think women had any problems at all in doing earthmoving. One official summed up his opinions by saying that "this class of women" is used to hard work and has no need of better working conditions.

^aThe officials stated that women's children disturb them while working, while women workers stated that they worried about their children at home. While these two responses are not exactly comparable, they both relate to the same issue of women and their children.

Payments to Workers

All of the officials interviewed stated that women were paid according to the official rate of three *seers* of wheat for moving 50 cubic feet of earth. When the authors asked these officials if they thought women understood this payment rate, their answers were evasive. Most of the officials stated that they paid workers once a week which was also the most common response of the women workers. Seventy-five percent of the officials stated that they experience irregularities in the disbursement of wheat from the government warehouses, which results in irregular payments to workers.

Summary

Interviewing project officials was difficult and the data collected is unreliable because officials were inconsistent and evasive in their answers. Both workers and officials perceived the need for food as the major reason women work in FFW. Officials also regarded FFW as a better alternative than begging for poor women. Officials' estimates of worker attendance were several times greater than the number of women observed to be working. The officials' perceptions of the problems encountered women workers were not consistent with the problems the workers themselves reported.

Chapter 5

Income Generating Activities And Non-Food Work Employment

Introduction

For the women who are the subjects of this study, Food for Work provides only seasonal employment, as the normal work season for FFW begins in January or February and is usually finished by the end of May or early June. The findings discussed in Chapters 3 and 4 present a picture of extremely needy women seeking employment as a result of their families' need for food. What do these women do during the times of the year when employment in Food for Work is not available? In order to present a more complete description of the employment activities of rural women in Bangladesh, a number of questions were included in the interview schedule relating to the other types of employment and income generating activities in which these women are involved.

This chapter is divided into three main sections. First, women's involvement in rice processing is described. Second is a discussion of women's employment in the households of other people. Last is a presentation of the various other types of income generating activities in which these women are involved.

The employment of women and the types of work performed by women in Bangladesh are discussed in some detail in the literature review which is Appendix C of this report. The findings of other studies are also reported in this literature review.

Rice Processing

Participation in rice processing. Post-harvest rice processing is done primarily by women in Bangladesh, and is one of the main sources of income for rural women. A number of different activities are involved in processing rice, such as threshing, beating, parboiling, drying, husking, winnowing, seiving, and the storing of rice.

All of the women who were interviewed were asked if they process rice. Table 43 below presents the number who responded positively to this question, correlated with the type of FFW project in which the women were involved.

Table 43 Number of Women Processing Rice

	CARE	CARE	CARE	CONCERN	Total
	Comilla	Khulna	Rangpur	RDRS	
Number of women in project	88	114	96	57	355
Number of women processing rice	43	81	47	1	172
Percent of women processing rice	(48.9)	(71.1)	(49.0)	(1.8)	(48.5)

Chi-square significant, $p < 0.001$

Note: Several points should be made to explain this table and the ones to follow in this chapter. First, in the tables in this chapter, the women working with CONCERN and with RDRS will be combined into one category. If there are differences between these two groups, they will be noted. Secondly, the percentages as presented will not add up to 100%, either going across the table or down. The percentages not given are those showing the number of women not doing a particular activity. Thus, for example, in the above table, since 48.9% of the women in Comilla are processing rice, it is obvious that 51.1% are not processing rice. For purposes of simplification, these percentages of women not doing work were omitted from the tables.

Overall, nearly half of the women doing FFW process rice, and a significantly higher proportion of women doing earthmoving in Khulna and Jessore process rice. The one woman processing rice who is not an earthmover is employed in the RDRS tree tending program. The fact that no women from CONCERN centers process rice is explained by the fact that CONCERN work centers offer year round employment and none of the women working at CONCERN came from families which owned land. Further analysis revealed no significant correlations between rice processing and other variables such as marital status, age, head of household, and so forth.

Earnings from processing rice. It is extremely difficult in a brief interview to assess exactly what women earn from processing rice or any other type of income generating activity. During the pre-testing, it was found that some women receive some rice in exchange for their labor, some receive meals, some are paid in cash, and some process rice for their own family's use. These categories are not mutually exclusive: some women may earn a small portion of rice plus one meal per day, other women may earn some cash and a meal, some women may earn only a portion of the rice processed at one employer's and elsewhere earn cash, some spend part of their time processing rice for their own family (and thus make no direct earnings) and at other times work in other households for some payment. Since collecting data regarding forms of employment other than FFW was only peripheral to the major aims of this study, we decided not to include detailed questions regarding earnings from these other forms of employment. Questions relating to payment for processing rice are on page 13 of the interview form.

Table 44 on page 91 shows the distribution of responses regarding the amount of payment received for processing rice. This table shows that earnings received from processing rice tend to be fairly low. When rice is earned, the majority of women

earn less than one *seer* of rice daily.¹ When meals are received, most earn only one meal; when cash is earned, most earn less than five taka daily. There are significant regional differences in the earnings reported, with women in the Comilla area reporting higher earnings than elsewhere. There are no significant correlations between earnings for rice processing and other variables. Only 11 women reported that they were husking their own family's rice, which is consistent with our findings that very few of these women belong to families which own land.

¹At that time, one *seer* of rice was worth approximately six to eight taka.

Table 44

Daily Earnings from Processing Rice

	Payment in Rice		Payment in Meals		Payment in Cash			
	Number	(Percent)	Number	(Percent)	Number	(Percent)		
Less than 1 <i>seer</i>	54	(52.5)	1 meal daily	54	(55.7)	Less than 5 taka daily	33	(68.8)
1 <i>seer</i> daily	42	(34.4)	2 meals daily	29	(29.9)	5-10 taka daily	12	(25.0)
More than 1 <i>seer</i> daily	16	(13.1)	3 meals daily	14	(14.4)	11 taka or more daily	3	(6.2)
Total	122	(100.0)		97	(100.0)		48	(100.0)

Note: These are not mutually exclusive responses. A woman could have earned less than one *seer* per day and one meal per day, for example.

Employment in other Households

A common practice of poor rural women is to take on part-time work in the households of other more affluent villagers. Women working in others' households do such work as food processing and preservation, house cleaning and maintenance, fetching water and firewood, and so forth. Table 45 below presents the distribution of women doing this type of work.

Table 45 Number of Women Employed in other Households

	Care Comilla	Care Khulra	Care Rangpur	CONCERN RDRS	Total
Number of women in project	88	114	96	57	355
Number of women working in other households	61	70	42	2	175
Percent of women working in other households	(69.3)	(61.4)	(43.7)	(3.5)	(49.3)

Chi-square significant, $p < .0001$

Slightly less than half of the women work in other households, although virtually no women working for CONCERN and RDRS do this type of work. The reasons for this are similar to these women's lack of employment in rice processing -- their FFW employment is year round. While women working in earthmoving projects under the Khulna unit office were more likely to be processing rice, in this case it is the women in the Comilla area who are more likely to be working in other households, and women in Rangpur were the least likely to be doing work in other households. Further analysis also revealed that formerly married women (divorced, widowed, deserted) were more likely to be employed in other households (Chi-square significant, $p < .05$). Women who stated that they were the highest income

earner in the family were also more commonly employed in other households.

Earnings from household work. It is as difficult to assess earnings from this type of work as it is with rice processing. Some women earn rice, others earn meals, some each, and many earn a combination of rice, meals, and/or cash. Table 46 on page 94 presents the various earnings of women working in other households.

Earnings from working in other households tend to be fairly low. A comparison between Table 44 on page 91 and Table 46 on page 94 reveals a very similar distribution in earnings between household work and rice processing. Also, as with rice processing earnings, there are significant regional differences, with women in the Comilla area reporting higher earnings than elsewhere. These regional differences are particularly striking in light of the findings discussed in the previous chapter that women in the Comilla area reported the lowest earnings from doing earthmoving. These low earnings in Food for Work in Comilla contrast with a pattern of higher wages for other work in this area.

Income Generating Activities

The encouragement of women's involvement in income generating activities is a goal of the Bangladesh government and many of the governmental and private organizations providing foreign aid to Bangladesh. To provide quantitative data about the types of income generating activities poor rural women are currently engaged in, questions were asked during the interview about a number of different activities. Most of these activities are ones which a woman may also do for her own household use. The interviewers stressed to the respondents that we were interested in knowing if a certain type of activity was done not only for household use but also to sell or trade for income. Table 47 on page 95 shows the number of women who responded that they were engaged in each type of activity.

Table 46 Daily Earnings from other Household Work

	Payment in Rice		Payment in Meals		Payment in Cash			
	Number	(Percent)	Number	(Percent)	Number	(Percent)		
Less than 1 <i>seer</i> daily	51	(57.9)	1 meal daily	71	(47.7)	Less than 5 taka daily	14	(66.7)
1 <i>seer</i> daily	21	(23.9)	2 meals daily	47	(31.5)	5-10 taka daily	5	(23.8)
More than 1 <i>seer</i> daily	26	(18.2)	3 meals daily	31	(20.8)	11 taka or more daily	2	(9.5)
Total	98	(100.0)		149	(100.0)		21	(100.0)

Table 47 Types of Income Generating Activities

Type of Activity	CARE Comilla		CARE Khulna		CARE Rangpur		CONCERN RDRS		Total No. of women	Significance Level of (Overall %)	Differences
	No. of women	(%)									
Cleaning and other field work	59	(67.0)	62	(54.4)	49	(51.0)	13	(22.8)	183	(51.5)	p < .0001
Poultry and live-stock raising	26	(29.5)	64	(56.1)	50	(52.1)	20	(35.1)	160	(45.1)	p < .001
Sewing <i>kathas</i>	32	(36.4)	60	(52.6)	43	(44.8)	8	(14.0)	143	(40.3)	p < .0001
Vegetable gardening	14	(15.9)	31	(27.2)	30	(31.2)	11	(19.3)	86	(24.2)	p < .05
Other types of work	30	(34.1)	26	(22.8)	18	(18.7)	2	(3.5)	76	(21.5)	p < .001
Jute, cane and bamboo work	9	(10.2)	34	(29.8)	18	(18.7)	11	(19.3)	72	(20.3)	p < .01
Work in rice mill	12	(13.6)	8	(7.0)	11	(11.5)	2	(3.5)	33	(9.3)	N. S.
Weaving	1	(1.1)	0	(0.0)	6	(6.3)	2	(3.5)	9	(2.5)	p < .01
Total number interviewed at each location	88		114		96		57		355		

Note: The percentages in this table indicate the proportion of women in each project location who responded that they were involved in a specific type of income generating activity. The percentages do not total 100% because women could answer positively to more than one question.

Table 47 on page 95 shows that gleaning and other outdoor field work were the most frequently cited activities: over half of all the women in FFW do gleaning and other field work such as picking chillies, planting seedlings, and the like.¹ Furthermore, 57% of the women doing earthmoving report they do this type of work. Formerly married women were more likely to be doing gleaning and other field work than currently married or never married women in our sample (Chi-square significant, $p < .05$). Women in the Comilla area were slightly more likely to be doing this type of work but the correlation is not statistically significant.

It has been suggested that women who glean and do other outdoor field work may be a particularly needy group, and that involvement in this type of work may be a good screening device for programs targeted for the "poorest of the poor".² Analysis was performed to see if gleaning and other field work correlated with low economic status. A significant difference was discovered between women who do gleaning and other outdoor field work and those who do not. As discussed previously, number of times per day of lighting the *chula* is a good indicator of low economic status. Women who do gleaning and other field work reported lighting their *chulas* less frequently than women who do not do this work (analysis of variance significant, $p < .05$). This suggests that both frequency of cooking and participation in outdoor field work are good indicators of low economic status, and have the advantage over many other economic indicators of being simple and readily understood questions.

Although Bangladesh is primarily an agricultural society, the only type of agricultural activity which has been traditionally

¹This question referred specifically to various activities that must be done outside the household area. It does not refer to post-harvest activities which can be done within the household compound.

²The suggestion that gleaning might be an effective screening device is credited to Rudolph von Bernuth, Country Director, CARE Bangladesh.

acceptable for women is rice processing and other post-harvest activities within the household area. The fact that so many women in this sample of participants in Food for Work were doing gleaning and other field work suggests that poor women who begin to do one type of outdoor activity are likely to continue to accept other employment which involves leaving the confines of the household compound.

Poultry and livestock raising was the second most commonly cited income generating activity. Women doing earthmoving in the Khulna district were the most likely to do this type of work (Chi-square significant, $p < .001$). Unmarried women were found more likely to raise poultry and livestock than those currently or formerly married (Chi-square significant, $p < .05$).

Slightly over 40% of the total number of women reported sewing *kathas* (embroidered quilts) to sell for income. Sewing of these quilts is a very common activity among rural women and the authors frequently observed women not doing earthmoving but living in nearby areas who were sewing *kathas*. In contrast to poultry and livestock raising, the sewing of *kathas* is more common in currently married or formerly married women than in never married women (Chi-square significant, $p < .05$).

Less than 25% of the women interviewed were involved in the remaining activities, which were vegetable gardening, jute, cane and bamboo work weaving, employment in rice mills, and others. Almost half of all the women interviewed process rice for income. This source of income may be threatened by the introduction of mechanized rice mills.¹

It is encouraging to note, therefore, that almost 10% of women doing FFW have also earned income by working in mechanized rice mills.

¹A discussion of this issue may be found in the literature review, Appendix C.

Summary

1. Almost half (49.3%) of the women in this sample work in other households for income. Formerly married women (widowed, divorced, deserted) and women who were the highest income earner in their family were most likely to do this type of work.
2. Rice processing using traditional methods provides earnings for 48.5% of the women interviewed. Almost 10% of the women have worked in mechanized rice mills.
3. Earnings from processing rice and working in other households tend to be fairly low. Women in the Comilla area tend to make somewhat higher wages; this is in contrast to the lower wages earned by women in this area doing earthmoving.
4. Over half of the women reported doing gleaning and other outdoor field work. This is a striking finding in light of traditional restraints on the involvement of women in outdoor agricultural work. Participation in gleaning and other outdoor field work may be a simple and effective indicator of low economic status.
5. There are significant regional variations in the types of income generating activities in which women are involved. Rice processing, poultry raising, and sewing *kathas*, all of which may be done within the household compound, are more common income sources in Khulna district. In Comilla gleaning and other outdoor field work, and work in other households are the more frequent income sources. These activities require women to leave the confines of the household.

CHAPTER 6

Recommendations for Future Food for Work Women's Projects

Introduction

Identification of alternate activities to earthmoving for an expanded women's Food for Work program in Bangladesh was one of the goals of this study. If a women's Food for Work program is to be continued or enlarged in the future, in what specific work activities should women participate?

This chapter presents the findings relating to this issue. First, various alternative work activities and their acceptability to women already involved in FFW are described. Next, the availability of a potential labor market for an expanded FFW program is presented. The potential role of cooperatives in implementing alternate FFW activities for women is discussed in the following section. Finally the feasibility of incorporating these various work activities in an expanded women's Food for Work program is discussed.

Acceptability of Future FFW Employment

Alternate work activities. Women doing FFW were asked a number of questions regarding what types of work they would be willing to do in the future in exchange for a payment of wheat. The purpose of asking these questions was to ascertain which types of programs offering alternate work activities would

be most likely to be successful in the future. All of the women doing earthmoving were asked if they planned to do earthmoving again after work was finished on the project where they were currently employed. These women were also asked if they would be willing to do a number of alternate work activities for a wheat payment. The women working with CONCERN and RDRS were asked if they would be willing to do earthmoving, if for some reason they were unable to continue in their current jobs in FFW. (It should be remembered that the women working with CONCERN and RDRS have non-seasonal, long-term employment.) The CONCERN and RDRS women were also asked if they would do certain other activities in the future, but not the particular type of work they were already doing. Table 48 below presents the findings relating to the acceptability of various FFW activities.

Table 48 Alternate Work Activities in Food for Work

Activity	Number of Women Asked This Question	Number of Women Willing to Work	Percent Willing to Work
Poultry raising, kitchen gardening	355	319	(89.9)
Planting trees (reforestation)	339	290	(85.5)
Earthmoving	355	281	(79.2)
Handicrafts	314	235	(74.8)
Latrine building	355	243	(68.5)
Learning about health, family planning	355	242	(68.2)
Cottage industries	315	209	(66.6)

Note: There are different totals given for the number of women asked a certain question because, for example, women already doing tree tending and reforestation activities were not asked if they would do this work in the future. All of these women assumed that they would be doing this activity in the future.

Poultry raising and kitchen gardening. This table shows that poultry raising and kitchen gardening are seen by the women as the most desirable work activities in FFW. It should be remembered that poultry and livestock raising was the second most common current income generating activity among women in FFW, and kitchen gardening was the fourth most common activity. This indicates that a substantial number of women are already doing poultry raising and kitchen gardening, and even more would like to be able to do this type of work in the future. A number of correlations were performed with other variables such as project location, age, marital status and the like, but none of these resulted in significant findings. As discussed in the previous chapter, we found that younger women were more likely to be raising poultry and keeping a kitchen garden, although this relationship was statistically significant only in the case of raising poultry. Younger women were also more likely to express a willingness to do poultry raising and kitchen gardening in the future although this relationship was not statistically significant.

Reforestation. Willingness to participate in reforestation activities was also expressed by over 85% of the women currently doing FFW. Correlation analysis did not reveal any significant relationships between this variable and others such as age, marital status, project location and others. This suggests that programs relating to reforestation do not need to concentrate on any one area of the country or a specific target group. Women all over the country, of all ages and marital status, expressed interest in doing reforestation activities.

Earthmoving. The high percentage of women who stated that they would do earthmoving in the future is somewhat surprising given the impressions of these authors and many others that women accept earthmoving employment as a last resort in times of great economic need. The fact that so many women were willing to do earthmoving again in the future does not mean that economic need is not the motivation for accepting

this type of work, but rather that in spite of the unattractive nature of the work, many women are still willing to move earth for a wheat payment.

Of the 57 women working with CONCERN and RDRS, 20 (35.1%) stated that they had done earthmoving in the past. Table 49 below shows the differences in willingness to do earthmoving in the future between women currently doing earthmoving and those currently doing other work.

Table 49 Willingness to do Earthmoving in the Future

	CARE		CONCERN, RDRS	
	Number	(Percent)	Number	(Percent)
Yes	247	(82.9)	34	(59.6)
No, do not know	51	(17.1)	23	(40.4)
Total	298	(100.0)	57	(100.0)

Chi-square significant $p < .001$

This table indicates that women currently doing earthmoving are significantly more willing to do earthmoving again in the future than other women involved in non-earthmoving FFW. The reasons for this difference are not entirely clear. It may be that those women currently moving earth have less negative opinions about the acceptability of this type of work. The women working at the CARE projects were asked if they would be willing to do earthmoving with men; only 55 or 18.4% of these women stated that they would work with men. There was some regional variation to the responses. Women in the Khulna/Jessore area were less likely to be willing to work with men while women in the Comilla area were more likely (Chi-square significant, $p < .05$). An interesting pattern emerged in regard to marital status. Currently married women and widows were more likely to be willing to work with men, though never married and divorced and deserted women were less likely

to be willing to work with men (Chi-square significant, $p < .05$). It may be that women who are unmarried or divorced must be more careful to safeguard their reputations while women who are married or widowed do not need to be as concerned. In summary, separate women's FFW projects are clearly the preference of the majority of women.

Village sanitation. Projects relating to village sanitation have been suggested as alternate FFW activities. These projects might include such activities as cleaning water tanks, sweeping roads and paths, and building and maintaining more permanent latrines than are available in most villages. During the pre-testing, we tried asking a variety of questions relating to this type of work, and found the most simple and effective way to ask the question was to ask if a women was willing to build a permanent style latrine. A number of people who saw the interview form prior to its administration expressed the opinion that very few if any women would answer positively to this question. It is, therefore, somewhat surprising that 68.5% of the women interviewed stated that they would do this type of work. It was the authors' observations during the interviews that while most women did not express the enthusiasm for this type of work that they did for tree planting or poultry raising, they tended to think about it briefly and then respond positively. Women between the ages of 20 and 49 were more likely to be willing to build latrines (Chi-square significant, $p < .01$). Women who were the highest earner in their families were significantly more likely to state that they would build latrines (Chi-square significant, $p < .001$). These findings suggest that any future programs in FFW involving village sanitation should select as participants middle aged women who are the main supporters of their families.

Handicrafts and cottage industries. Since handicrafts and cottage industries are often thought to be the most appropriate type of employment for women in Bangladesh, it was expected that a high proportion of women would express an interest in this type of activity. Table 48 on page 100 shows that 74.8% of the women

currently doing earthmoving and tree tending were interested in doing handicrafts, and 66.6% of these women were interested in cottage industries. The authors observed some women who said they would not be interested in such work as they did not have the requisite skills. In these cases the interviewers were instructed to make it clear that such a program would include training in these skills, but even with this clarification, some women seemed to be doubtful they could do this type of work. Younger women were more likely to respond positively to these questions than older women (Chi-square significant, $p < .01$). This suggests that younger women, especially below the age of 40, may be more successful participants in this type of program.

Health care and family planning. The relatively low percentage of women (68.2%) who expressed willingness to learn about health care and family planning was another unexpected finding. If the women expressed any confusion, the interviewers were instructed to make it clear that actual family planning practice would not be required but what would be involved would be simply going to some location to learn. A number of women seemed to be confused by the suggestion that a payment would be offered for no actual work or behavior, and the slightly lower percentage willing to do this activity may be related to this confusion.

Availability of Labor

The high percentages of women who expressed interest in a wide range of work activities demonstrates that women currently doing FFW are interested in continuing to work. The fact that payment would be in wheat rather than cash does not appear to be a significant deterrent to employment. Women were also asked a question regarding the length of time they would be willing to spend doing various FFW activities. Table 50 on page 105 shows the distribution of answers to this question.

Table 50 Time Available for Food for Work

Times Women are Available	Number	(Percent)
Every day	293	(82.5)
Seasonal	24	(6.8)
Do not know or no response	38	(10.7)
Total	355	(100.0)

Over 80% of the women currently doing FFW would prefer non-seasonal, year-round employment. There were no significant correlations between this question and other variables such as project location, age, marital status, number in family, head of household, and so on. It seems clear, therefore, that programs offering year-round employment would have no difficulty attracting women participants.

Women workers were also asked if they knew any other women not currently working who would like to work in FFW. Table 51 below presents the difference in responses to this question between women doing earthmoving and those doing non-earthmoving FFW activities.

Table 51 Number of Workers Who Know Other Women Interested in FFW Employment

Know Other Women	CARE Earthmoving Projects		Non-earthmoving Projects (CONCERN, RDRS)		Total	
	No.	(%)	No.	(%)	No.	(%)
Yes	115	(38.6)	41	(71.9)	156	(43.9)
No	164	(55.0)	13	(22.8)	177	(49.9)
Do not know	19	(6.4)	3	(5.3)	22	(6.2)
Total	298	(100.0)	57	(100.0)	355	(100.0)

Chi-square significant, $p < .0001$.

This table shows that while overall, 43.9% of the women interviewed stated that they know other women desiring employment, this response was much more likely among women working at CONCERN and RDRS. It is possible that some of the women doing earthmoving who said that they did not know any unemployed women wishing to work responded in this manner because most if not all of the women they knew who wished to work were already working along side them in the same earthmoving project. It was not unusual to find women not only from the same village but also from the same *para* (neighborhood) working together on the same earthmoving project. However, the high response rate of women doing non-earthmoving activities probably reflects the fact non-earthmoving work is considered somewhat less objectionable by workers and their families.

Women workers were also asked why non-working women wishing to work were not working. Among the CONCERN and RDRS workers, the main reason given was lack of opportunity; 85.4% of the women stated that this was the reason other women were not working.

Among the CARE earthmoving women who knew other women wanting to work, 27.2% stated that family members prohibit women from working and 6.1% stated that other women think the work is not proper for women. Thus 38, or one third of the women responding to this question, cited social or cultural obstacles to earthmoving. This finding contrasts with that of Chen and Ghuznavi (1977) who found that only 6 women doing earthmoving (2.0%) stated that social obstacles prevented other women from working.

Chen and Ghuznavi also found that lack of opportunity was cited by 43.2% of their respondents. This response was cited by only 8 women doing earthmoving (2.7%) in this sample, which may indicate that there are currently more opportunities for women to participate in FFW than there were four years ago. Other common responses given by CARE

workers were that the work is too hard (11.4% of the responses) and that the pay was not enough (14.0%). No CONCERN or RDRS workers cited the work being too hard as a reason for not working, and only two CONCERN workers cited low pay as a discouraging factor. These differences between the CARE workers and the CONCERN and RDRS workers were statistically significant.

These findings suggest that there is a large group of potential participants in FFW activities who are presently not working. If women are given the opportunity, and especially if the pay is sufficient and the work does not involve earthmoving, there is every likelihood that there will be no difficulty finding women willing to do the work. In addition, it is likely that these women will prefer non-seasonal, year-round work to the seasonal, temporary work currently available in the earthmoving FFW projects.

Role of Cooperatives

The formation of women's cooperatives has been one of the principal methods used to involve women in income generating activities. Numerous agencies, both governmental and non-governmental, have established women's cooperatives throughout the country. It is difficult to assess the role of cooperatives in encouraging women's participation in income generating activities. Those agencies currently working with cooperatives claim high rates of participation, high rates of loan repayments, and successful income earning projects among cooperative members. Those agencies not working with cooperatives or no longer working with cooperatives tend to claim that the cooperative movement in Bangladesh is a failure because it is not consonant with Bangladeshi cultural traditions. It has been asserted that women join cooperatives only to qualify for loans, that middle class members tend to take over and dominate the cooperatives and that the poorest women most in need of assistance are not able to join the cooperatives because of the membership fees.

To gain information on the current participation in cooperatives among women doing FFW, several questions relating to cooperatives were included in the interview. The reader will note that the question on the interview form does not specifically mention women's cooperatives. During the pretesting, we found that many women were confused when we asked them if they were members of a women's cooperative society, but when the simple term "women's society" was used, there was less confusion about the meaning of our question. The two terms are often used interchangeably because almost all of the women's societies are in fact women's cooperatives.

Only seven women (2% of the total) responded that they were members of a women's society; all of these seven women were involved in the CARE earthmoving projects. This small percentage indicates that the women's cooperatives may not reach what should be an important target group—women of low economic status who are actively seeking employment and income generating activities outside the home. Of the seven women who were members of women's societies, only one stated that the society had been helpful to her. This woman stated that the help she had received had been that of receiving a loan. The reader will note on page 6 of the interview form the variety of possible answers which could have been given regarding help provided by a woman's society. Of 355 women who were interviewed in a number of different areas of the country, only one woman had been helped by a cooperative and this help had been in the form of a loan rather than all of the other types of support that cooperatives claim to be providing to rural women. This finding indicates a failure on the part of women's cooperatives in providing assistance to poor rural women.

Feasibility of Alternate Work Activities in a FFW Program

The following section discusses the feasibility of the various work alternatives women expressed interest in for future FFW projects. The feasibility of these alternatives, the program inputs

required, and the potential problems which might be encountered are described.

Poultry raising and kitchen gardening. Poultry and livestock raising and kitchen gardening were the activities in which the most number of women expressed interest. A number of agencies have various programs providing assistance to women in these activities, and the addition of a FFW element to these programs should be investigated. Many of these programs implement their activities through the formation of women's cooperatives. The findings of this study do not support the use of women's cooperatives with the very poor women who were the subjects of this study.

The feasibility of incorporating poultry and livestock raising and vegetable gardening into a women's Food for Work program is unclear. Making a payment of wheat to women participating in a project of poultry and livestock raising or vegetable gardening may be a way of increasing the interest in participating in such a project. The wheat payment would provide an income to participants prior to their realizing any profit from their work activities, and later would supplement whatever earnings participants would generate through their work. The inputs required in addition to the wheat payment are considerable seeds, chicks or young livestock, fertilizers, pesticides, vaccinations, extension education, and so on.

Since the work could not take place in a centralized workplace, the measurement of actual work performed would be difficult. Would a woman receive a wheat payment simply for participation in the program, or would she be required to demonstrate certain work results, such as a certain number of chickens or goats successfully raised, a given amount of vegetables raised, and the like? Participants encountering certain problems such as floods, drought, disease, theft, and so forth, might be unable to meet work norms but because of these problems would be in greater need of the wheat payment. Women with very successful projects would need the wheat payment less than

those who were unsuccessful, so a work norm based on successful project completion would obviously introduce inequities. Poultry and livestock raising as a FFW activity on a large scale basis cannot be recommended at this time. However, the funding of a few pilot projects in this area would provide the data needed to make a definitive assessment of the feasibility of these activities in FFW. Agencies working with women in income generating projects apart from FFW should be aware of the high degree of interest expressed in these activities by poor women seeking employment.

Reforestation. Reforestation is another activity in which a high percentage of women expressed interest. The authors were very favorably impressed by the women's reforestation project sponsored by RDRS and the quantitative data collected in this study support this observation. Since this project is a new project, long range data regarding the eventual success of the project are not available. However, the data collected in this study and RDRS's evaluation of this project certainly support the funding of additional reforestation projects for women in FFW. The fact that women of all ages and in all the regions in which this study was conducted expressed interest in reforestation, supports the introduction of reforestation as a FFW activity.

Reforestation projects are particularly attractive since they can complement earthmoving FFW projects. Women can plant and tend trees along roads previously built by men or women in FFW projects. Trees planted along these FFW roads would decrease the rate of erosion along these roads and thereby increase the long term beneficial impact of the roads. Furthermore, certain varieties of fruit and spice trees could eventually be a source of income for the women tending these trees.

The program inputs required for reforestation projects, while greater than those currently required in earthmoving projects, are not excessive. Seeds and/or seedlings would be required, but

women could be paid in wheat to grow these seedlings in small local nurseries and wheat payments could be used (as is presently done in the RDRS project) to pay for the construction of the baskets used to shelter young trees. Fertilizer and pesticides would probably be necessary. Women currently involved in the RDRS project supply their own work tools and they did not express dissatisfaction with this arrangement. A wheat payment would probably be required for three to five years (depending on tree varieties and local conditions) but after this, women could become self-supporting through the income produced by their trees, if arrangements were made in advance guaranteeing that they and not local landowners would benefit from these trees.

Earthmoving. It should be acknowledged by the authors that their impressions and observations regarding earthmoving as a FFW activity for women were negative. Earthmoving is physically demanding, the working conditions and environment are unpleasant, the current payment formula is confusing and inappropriate for use with uneducated women, and the amount of pay is low. However, it must also be acknowledged that over 80% of the women currently doing earthmoving expressed a willingness to do earthmoving in the future, in spite of these negative aspects. The quantitative findings of this study, therefore, do not support the discontinuation of earthmoving FFW projects for women. In addition, a strong case can be made for the continuation of women's FFW projects as separate projects, as the majority of women are not willing to work on the same worksite as men. However, the women's expressed desire and need for year-round employment should be considered in any future programs. One suggestion is that women participants in a reforestation project be selected from among those women who built the roads along which the trees would be planted.

Furthermore, there are certain improvements in FFW earthmoving projects suggested by this study. The need for latrines

for women workers is obvious. Women could be paid in wheat to dig temporary latrines and to make temporary shelters for these latrines. The need for a water supply is also clear. Certain women could be chosen to be paid in wheat for carrying water to the worksites. Women could also be paid in wheat to build temporary shelters for women to use during lunch and rest breaks and for children brought to the worksite. Older women and pregnant women unable to do earthmoving could be paid in wheat to provide childcare for working mothers at the worksite.

Adjustments in the payment formula and implementation should be made. The authors believe that a daily rate (based on a number easily understood and computed, such as $3\frac{1}{2}$ *seers* per day, 4 *seers* per day, and the like) would result in less underpayment of women and would be far more equitable, easily verified payment. If this recommendation is not implemented and a payment rate based on amount of earth moved is retained, certain changes should be introduced. Measuring poles such as described in Chapter 3 should be made and distributed in large numbers to all FFW sites. These poles could be made by workers earning wheat, and these poles could also be distributed to all male projects. An aggressive attempt should be made to teach women how to measure the amount of earth moved and how to calculate the correct amount of wheat payment to which they are entitled. Simple leaflets designed for the illiterate showing a woman using a pole to measure the amount of earth she had dug and how this measurement translates to a payment, could be printed and distributed to all women's worksites. CARE staff could make greater efforts to observe wheat distributions to insure that women are paid the proper amount. The current focus on measuring the length and height of roads built should be extended to a focus on the payment rates to workers.

Village sanitation. Almost 70% of the women expressed a willingness to build latrines for a wheat payment. Since the

building of latrines is probably one of the least attractive of the various activities that would be included in the term "village sanitation," this finding suggests that probably an even larger number would be interested in participating in programs involving a wide range of village sanitation activities, such as sweeping roads and paths, cleaning water tanks, clearing water hyacinths and so forth. The authors are not aware of any projects which currently involve women in village sanitation activities for wheat payments but the development of several pilot projects should be encouraged.

Handicrafts and cottage industries. The CONCERN projects provide a model for the implementation of FFW projects in the areas of handicrafts and cottage industries. As previously described, women in the CONCERN work centers do a wide variety of tasks for which they are paid in wheat. The CONCERN projects are clearly providing support to large numbers of women who need such support, and the fact that women elect to stay in these work centers for many years indicates a fairly high level of satisfaction with these programs. There are, however, a number of factors which reduce the potential feasibility for introducing such work centers on a large scale throughout the country.

First, the program inputs required to support these projects are extensive. Raw materials must be supplied, instructors and supervisors must be hired, and arrangements for the marketing and sale of the items produced must be made. It should be clearly stated that the authors were favorably impressed by the CONCERN centers in many ways. The provision of kindergarten and school for the workers' children, the availability of a clinic, the supplemental feeding program for children, and the functional education courses result in a well-rounded program to improve the quality of life for participants that cannot be rivalled by either the CARE earthmoving projects or the RDRS reforestation project. However, the funds required to support these additional services are considerable, and therefore the

replicability of these projects on a wide scale throughout the country is questionable.

A second factor which must be considered is that of dependency. Women who participate in the CONCERN work centers tend to become dependent on the program and reluctant to make efforts to become self-sufficient. As stated previously, 83% of the women interviewed at these work centers had been working there more than three years, and 34% of the total had been at the center for six years or more. CONCERN staff point out that their beneficiaries tend to come from particularly disadvantaged groups such as displaced squatters, refugees, and the like, and are therefore less able to achieve self-sufficiency. It should have to be anticipated, however, that if such programs were duplicated on a wide scale throughout Bangladesh, one potential problem might be that participants would be reluctant to "graduate" from the program.

A final consideration in regard to incorporating handicrafts and cottage industries in a nationwide FFW program is the need for this type of program. Many of the agencies now working with women in the area of employment and income generating activities concentrate on handicrafts and cottage industries, and the need for yet another such program is questionable. Such projects as reforestation and village sanitation are not currently stressed in women's development programs, and therefore new FFW supported programs in these areas would complement other women's programs, rather than duplicate the efforts of other agencies.

Health care and family planning. Programs in which women receive a wheat ration for participating in a program with education in health, nutrition and family planning are already in existence in Bangladesh. These vulnerable group feeding programs are not at this time supported by U.S. donated wheat channeled through USAID and CARE. This type of project is not a Food for Work project as there is no work involved.

However, there may be beneficial effects of such a program beyond the distribution of wheat. Not only can women receive instruction in health, nutrition, and family planning, but also such programs encourage women to leave the *bari* and come to a central meeting place to receive the wheat. Increasing the mobility of rural women may have indirect beneficial effects. It should be noted that the CONCERN work centers receive wheat through a vulnerable group feeding program. The introduction of work skills and literacy training in addition to the health, nutrition and family planning elements is supported by the findings of this study.

If women had expressed preference for health and family planning education over various work alternatives, a stronger case in support of this type of program could be made. The reverse was the case: more women expressed interest in reforestation, earthmoving and village sanitation projects than in health and family planning projects. The availability and acceptability of these work alternatives suggests that these types of programs should be given priority over programs that do not actually involve work. However, since almost 70% of the women interviewed expressed interest in health and family planning education projects, the support of this type project should be explored.

Summary

- i. Poultry and livestock raising, kitchen gardening, and reforestation are work activities in which over 85% of the women surveyed expressed an interest in participating for a payment of wheat.
2. Almost 80% of the total number of women surveyed expressed a willingness to do earthmoving work in the future. Women currently doing earthmoving are significantly more willing to do earthmoving in the future than women currently doing non-earthmoving work for wheat.
3. Between 65% and 75% of the women surveyed expressed an interest in other activities such as village sanitation, handi-

crafts, cottage industries, and health and family planning education.

4. Year-round, non-seasonal employment is preferred by over 80% of the women.
5. There is evidence that an adequate labor supply of women exists who would be interested in participating in FFW projects.
6. The use of cooperatives to implement alternative work activities in FFW is not supported by the findings of this study.
7. Reforestation, village sanitation and earthmoving projects are recommended for work activities for women in FFW projects in the future.
8. A payment formula based on number of days worked rather than work output is recommended. A payment rate based on an easily understood and calculated amount is recommended.

CHAPTER 7

Conclusion and Implications

Summary of Methodology and Methodological Implications

Three hundred and fifty-five women employed in Food for Work projects were interviewed in this study. A structured, fixed-choice interview schedule was designed as the data collection instrument and was pretested with a total of 51 women. The 355 women interviewed using the final version of the interview schedule were working at eleven road building projects, two cottage industry work centers, and one reforestation project.

Interviewing project officials proved to be extremely difficult. In many cases, their responses were inconsistent and evasive, and their estimates of worker attendance were considerably inflated. One implication of this is that statements and documents prepared by these officials may be unreliable.

There are several practical implications of this study which relate to research methodology in developing countries. First, the use of a structured, fixed-choice interview schedule to collect quantitative data from rural women is not, as has been suggested, an "inappropriate technology." The design and implementation of such a data collection instrument for use with illiterate rural women require careful pretesting and use of culturally appropriate language. When these procedures are followed and interviewers are properly trained, a fixed-choice interview schedule can result in valid and reliable data. Collection of this type of quantitative data may be especially valuable in those countries

or regions in which research studies relating to women have been characterized by their methodologically "soft" approaches.

A second methodological implication of this research relates to the problem of interviewer bias. Despite intensive training of the interviewers and on-site supervision of the interviewers by the authors, careful data analysis revealed the presence of interviewer bias in the responses to some questions. This may partly be related to the relatively recent introduction to Bangladesh of western notions of scientific inquiry. Interviewers' salaries in Bangladesh are only a fraction of what must be paid to interviewers in western countries. This has fostered research projects in Bangladesh with extremely large samples and the collection of large data sets, although in most cases the subjects of such studies are men. It sometimes seems in Bangladesh that while much attention may be paid to the collection of large data sets, there is much less attention to the quality of such data. The findings of this research suggest greater caution in the collection and interpretation of data in Bangladesh.

Documentation of economic status among the rural poor is a third area in which this research has methodological implications. The rural poor in Bangladesh and in similar developing countries are at best only partial participants in a cash economy, and collection of data regarding annual earnings is extremely difficult. This is especially true for women, who are often denied access to information regarding landholdings, agricultural output and cash earnings of their husbands or fathers. Considerable success was observed in this study with the use of an operational indicator of economic status—the number of times per day that women cook. Frequency of cooking in Bangladesh is influenced by access to food and to fuel, both of which are influenced by economic factors. While women may not have accurate or complete information regarding these intervening economic factors, all women know how many times they cook each day. This simple and easily understood question proved to be a reliable and valid economic indicator. In other nations

or cultures, some other behavioral indicator might prove to be more valid, but the use of culturally appropriate economic indicators rather than more traditional criteria may result in more reliable and valid data in studies relating to women in developing countries.

Summary of Socio-Economic Findings

Women of all ages were observed working at these projects, from girls under the age of ten to women well over sixty. This wide age range among these employed women was an unexpected finding. Restrictions associated with the observation of *purdah* are assumed to be more strictly enforced with young women. Almost fifteen percent of the sample were under the age of twenty, which suggests that traditional patterns of the seclusion of women, especially those young and unmarried, are not as rigidly followed as has been believed. Another traditional concept in Bangladesh is that older women are accorded much respect and their economic needs are met by their children. More than ten percent of the women employed in the road building project, which involve heavy physical labor, are over the age of fifty. This finding is in contradiction with traditional beliefs about the care and protection of older women.

A popular belief that is disputed by the findings of this study relates to the employment of Hindu women. The Muslim majority of Bangladesh tend to stereotype Hindus as being more wealthy and not as subject to economic pressures. It was even suggested to the author that it was unnecessary to include a question in the interview regarding religious affiliation as it was "obvious" that no Hindu families would permit the employment of women. In fact, however, Hindu women were slightly over-represented in the sample compared with population census figures. This finding indicates that the economic pressures which encourage the employment of women in Bangladesh are evenly distributed among the religious groups of Bangladesh.

Less than ten percent of the rural employed women in this study are literate. However, the women employed at the cot-

tage industries projects, which offer ancillary services such as health care, literacy training, and functional education, have a significantly higher rate of literacy than do women employed in the road building and reforestation projects. This finding supports the concept that centralised workplaces for women in developing countries are a useful concept as they can provide not only employment but also a variety of other "fringe benefits" not usually associated with other types of employment for women.

Sixty percent of the women employed in these rural works programs are not currently married, and over fifty percent of the women workers are the highest income earner in their families. They come from families with an average of over five members. These FFW projects are an important and needed source of earnings for women who are supporting large families without a male head of household.

Women who have ever been married have given birth an average of five times, but have an average of 3.3 living children. Women who have completed their reproductive years have given birth almost eight times but have had less than five children survive. Infant and childhood mortality rates in Bangladesh at the time of this study were approximately twenty-two percent of all children born. The findings of this research suggest that rural employed women have suffered a somewhat higher rate of mortality of their children than the national average.

Summary of Findings regarding the Employment of Women

Although poverty is an almost universal feature of life in Bangladesh, the employed women in this study clearly represent the "poorest of the poor." Their families are the rural landless, and they encounter frequent food scarcity. They seek employment because they need food and they use most of their wheat earnings for their own household consumption.

Work related problems are encountered by women involved in FFW, especially those women doing earthmoving. Almost

half of these women spend more than two hours daily walking to and from the worksite. The lack of latrines and water supply at earthmoving projects is a problem for these women workers, as are the physical demands of the labor.

Although a majority of the women doing earthmoving are aware that their wheat earnings are supposed to be related to work output, very few of them actually understand the payment formula nor are they able to measure accurately the amount of earth they have moved. As a result of this confusion, there is an underpayment rate of at least 10%. Women respondents were intimidated by project officials in regard to this issue and the actual underpayment rate may be higher than the reported rate of approximately 10%.

Women involved in FFW, especially those women doing seasonal earthmoving work, seek a variety of other forms of employment. Many of them process rice, using traditional methods and they also work in other households. The most common source of employment is gleaning and other outdoor field work. Over 50% of the women interviewed reported doing this type of work, which is similar to earthmoving in that it involves public exposure outside the confines of the household. Adhering to *purdah* and traditional norms of behavior is a luxury for these women which economic pressures do not allow.

Income generating activities such as poultry and livestock raising, vegetable gardening, cottage industries and handicrafts also provide employment to these women. One barrier to successful income generating projects in Bangladesh has been women's lack of access to the marketplace, which currently is dominated almost exclusively by men. Preliminary analysis of data collected by the authors suggests that women are interested in markets specifically designed for women's use. Further study is required to document the level of interest in women's markets and special considerations relating to markets for women.

Recommendations for Women's Food for Work Programs

Income generating projects such as gardening, poultry, and livestock raising, cottage industries and the like are not recommended as potential Food for Work projects. Projects such as these have an important role in relief programs for particularly disadvantaged groups such as refugees and minorities. In general, however, income generating projects should be designed to encourage self-sufficiency in the participants. The introduction of a wheat payment in these programs may reduce the motivation to achieve self-sufficiency.

Reforestation, village sanitation and earthmoving projects are recommended as future activities for women's Food for Work programs in Bangladesh. Women workers are interested in year-round, non-seasonal employment in these types of projects. There is evidence that projects of this nature would have little difficulty attracting women workers if the payment rate were adequate and equitable. A daily wage rate is recommended to insure that women actually receive the wheat to which they are entitled.

Projects such as these, if properly designed, are not only mechanisms for providing needed employment to poor women but also have the potential of contributing to the general development of Bangladesh.

Implications of this Study

It has been assumed in Bangladesh, by social scientists, development planners, and the average citizen, that women who seek employment outside the confines of the household are subjected to considerable familial and neighborhood criticism and opposition, and that they are stigmatized as a result of their non-traditional behavior. The findings of this research do not support this assumption. Less than ten percent of these employed women stated that they had been subjected to familial criticism for working, and less than twenty percent reported neighborhood criticism. Furthermore, only twenty women of the

total 355 reported that they had encountered active opposition to their employment.

What factors explain these unexpected findings? First, it is clear that these employed women come from the lowest socio-economic strata of Bangladeshi society. Concerns regarding the proper behavior of women and the maintenance of status differences between men and women are apparently less important to these families in which both the man and women share low status.

A second factor which is related to the lack of stigma associated with these women's employment is the simple fact of hunger. Malnutrition and borderline starvation are common features of life in Bangladesh. Virtually all of the women interviewed in this study reported that they had experienced times of extreme economic deprivation and scarcity of food. It is difficult if not impossible to maintain traditional ideas regarding the prohibition of employment of women outside the home in the face of increasing economic pressures and lack of food which are commonplace in the lives of rural people of Bangladesh.

Perhaps the greatest problem facing Bangladesh today is the tremendous population density caused by a large and rapidly growing population. The adoption of family planning has been targeted by the government of Bangladesh as an issue of top priority. At the current time, it is estimated that between nine to thirteen percent of married women between the ages of 15 and 49 have adopted family planning practices in Bangladesh. However, over twenty-six percent of the currently married women in this age group in this study stated that they were using family planning methods.

How does employment relate to the adoption of family planning practice? Women who work outside the home have a far wider range of social contacts than women who are secluded within their homes. In addition, the mere fact of walking to work may in turn make it easier to walk to a local family planning clinic. Our observational impressions of these employed

women were that they are much more aggressive and assertive than the more traditional Bangladeshi women who rarely if ever leave the *bari*. These employed women have adopted a number of nontraditional behaviors and ideas, including a relatively high rate of family planning practice, and this may be related to their employment status.

The unique feature of this sample of women compared to samples from which the national statistics regarding family planning are derived is the fact that all the women in this study are employed outside the household compound. This suggests that the relatively high rate of family planning practice among the married women in this study is related to their employment status. This supports the assumption that employment can serve to socialize adults in the adoption of nontraditional behavior in developing countries.

Planned social change is the goal of the governments of many developing nations and is also the goal of international and bilateral aid programs. A common assumption in many developing nations is that poor, uneducated rural people may be the most resistant to change. While this may be true in some nations, this research provides evidence that in Bangladesh, extremely poor, uneducated women in rural areas may be more open to change and the adoption of new behaviors than has been thought. Development programs which have as their ultimate goal the adoption of new behavior such as family planning, literacy or the increased participation of women in health and sanitation programs may find the provision of employment to needy rural women is an effective method of introducing these new concepts and influencing changes in behavior.

The women who are the subjects of this research have violated traditional norms of behavior for Bengali women by seeking employment outside their homes. In so doing, they have shown an openness to other new behaviors which will improve the standard of life for themselves and their families and have become an important economic resource to their families and

their nation. Thus these poor, uneducated rural women are one vanguard of social change and modernization in a highly traditional society. Development programs can become more appropriate and effective by recognizing this potential for change and adaptation in rural women.

Appendix A

Field Study Methodology

Introduction

This appendix describes the methodology employed during the field study portion of this project. Factors which influenced the various methodological decisions are first discussed, and then the design of the interview form and pretesting are described. Next, the sampling techniques employed are discussed. Following this, we describe the various field trips made to Food for Work projects, and the implementation of the interview form. Next, the various problems encountered in the field work and techniques employed to correct these problems are discussed. Finally, is a brief explanation of the procedures used for data analysis and the statistics that are cited.

Methodological Decisions

The literature which was reviewed as part of this study revealed three basic characteristics about most of the studies previously done in Bangladesh relating to rural women. First, most have employed loosely-structured, open-ended interview forms for data collection. Secondly, most studies have concentrated on studying women living in one village or local area, or women involved in a specific development project; the number

of women studied has usually been relatively small. Thirdly, most of the women's studies have utilized an impressionistic, qualitative approach to data analysis rather than a quantitative, statistical approach. Each of these approaches to research have distinct advantages. Open-ended interviews allow for greater flexibility and exploration of topics not anticipated in advance by the researchers. Concentrating on a small number of women in a restricted area allows the researchers to get to know the women being studied more intimately, and a qualitative approach to data analysis can convey more of the researchers' impressions, and observations, and often makes for more interesting reading than a quantitative, statistical approach. This approach of open-ended interviews with a small number of women analyzed in an impressionistic fashion can be especially valuable when there has not been a great deal of previous research done, and when the research is exploratory in nature.

It was the goal of both USAID and the authors that quantitative data, appropriate for statistical analysis, be collected in this study. To achieve this goal, several specific methodological elements were required. First, we designed a highly structured, fixed choice interview form to be used in the field. Secondly, we decided to study women in a number of geographic areas and use a medium sized sample for a study of this nature. Thirdly, we collected data that could be easily coded for computer analysis so that the data could be analyzed using quantitative, statistical methods.

The methodological approach that we chose in this case is not necessarily better than the approaches used by other researchers in studying rural women in Bangladesh, and in fact the approach we took would not have been possible without the previous work of other researchers. The studies of McCarthy *et al.* and the previous study on women in Food for Work by Chen and Ghuznavi were very helpful in defining the research issues, in the design of our interview form, and in the formulation of specific questions. We trust that the approach taken

in this study, and the data generated by this study, will prove to complement the data previously gathered regarding rural women.

Design of the Interview Form

The design of a highly structured interview form is a time-consuming, complicated process. First, it is necessary to review and summarize exactly what is known about the target group to be interviewed. Next, the researchers interviewed a number of people currently working in the field in the implementation of Food for Work projects. The third stage was to visit Food for Work project sites and to interview women working at these sites.

The authors decided to use projects under the jurisdiction of the CARE Dhaka unit office for the design and pretesting of the interview form. We visited a total of six FFW projects in the Dhaka area. At the first project we visited, the interviews we conducted with women workers were loose, open-ended interviews with a wide range of topics. These initial interviews and our impressions and observations in the field enabled us to design the first draft of a structured interview. We next visited a different project site and experimented in the implementation of a more structured interview. The responses of the women allowed us to begin the process of specifying in advance the possible answers to our various questions. Experimenting with different wording for the same basic question enabled us to see which types of questions were not confusing to the women, and which were most successful in eliciting answers to our questions. And experimenting with arranging the questions in different orders allowed us to see which question order was most successful in establishing rapport with the respondents as quickly as possible.

The questions were first drafted in English by the first author, who understands Bangla but is not a native speaker. The

second author then translated the questions into Bangla. She did not translate the questions literally, but adapted the working and sentence structure in a way appropriate for use with poor rural women. These questions were then translated literally into English by a native Bangla speaker who had no other connection with the research project and who had never seen the original version of the questions in English. The two authors then made final decisions regarding the wording of the questions to insure that the meanings were precise.

The interview form presented in Appendix B is the fourth version of the interview, with the first version being loose and open-ended and each subsequent version being more well defined and with more possible answers specified in advance. After each trial use of a form, the researchers and the interviewers had lengthy discussions, reviewing in detail each question and the possible answers to insure that the questions were appropriately worded and that the possible answers were comprehensive and inclusive. This repeated process of question drafting, pre-testing, analysis, re-writing of questions and pre-testing again took place over a period of five weeks.

The authors originally planned to hire local interviewers in each study area. However, the complexity of the interview form and the training required to administer it properly made this unfeasible. Three interviewers were hired during the pre-testing phase of work. They were all young women with graduate education in social sciences. They were trained in interviewing techniques, and then participated in the pre-testing of the interview form. The interviews they conducted during the pre-testing period served as a training device and acquainted them in advance with field conditions. By the time actual interviewing with the final version began, they were very familiar with the interview form, they had learned appropriate methods of asking the questions and establishing rapport with the women, and they were experienced in coding the answers they elicited in the correct category.

Sampling

This research project as it was originally designed concentrated exclusively on USAID funded, CARE implemented earthmoving Food for Work projects. One of the aims of the project was to explore the possibility of expending USAID women's FFW projects into non-earthmoving activities. We decided therefore to broaden the focus of the research study to include interviews with women currently working at projects sponsored by two agencies in addition to those sponsored by CARE, and thus to include in our sampling both women doing earthmoving and those doing other types of work.

Another consideration that affected the sampling plan for the study emerged during the pre-testing period. We observed women who had been interviewed were later questioned by other women workers and by project officials about the questions we had asked, their answers, and so forth. We concluded that if we conducted interviews at a project site over the course of several days, the interviews conducted after the first day would be contaminated by discussions among the workers about the interviews. We decided, therefore, that our sampling plan and methodology would be based on the assumption that interviews could be conducted at each FFW project site during one day only.

A total of approximately 300 women interviewed was the goal that was chosen. This is approximately the same number as the 303 women interviewed by Chen and Ghuznavi in 1977. We decided that any interviews we conducted at non-earthmoving projects would be in addition to this goal of 300 interviews. During the pre-testing, we found that approximately 30 interviews per worksite could be conducted in one day. We realized in advance that the actual number conducted at each worksite would be influenced by how many women were actually working, and by how many hours we could spend at a worksite. The time required to reach the more remote worksites

would necessarily restrict the time we would be able to spend at the worksite, and thus possibly reduce the number of interviews that could be completed.

A random sample was another goal that we set. Readers familiar with conditions in rural Bangladesh and especially with conditions at FFW project sites will understand how difficult it is to achieve a true random sample. The specific methods we used to draw a random sample varied somewhat according to conditions encountered at the worksite. Probably the best method was to use the attendance books that project officials are supposed to keep at all worksites. Each woman's name is listed in the attendance book, along with a record of her work attendance. Using this book, it was possible to calculate a fairly precise figure of the total attendance and calculate the sampling frequency required to achieve 30 interviews. Thus, if 120 women were listed in the attendance book, it was necessary to sample every fourth woman listed, this could be achieved by picking a random number from one to four as the first case, and then sampling every fourth case thereafter. When we tried this method at one of the pre-test sites, it seemed to work fairly well. However, during our actual field work, we found attendance books maintained at only 1 of 11 project sites. While this in itself was an interesting finding, it meant that an alternate method of drawing a sample would be necessary.

We knew in advance that the possibility of attendance books being maintained at every site was very small, and therefore during the pre-testing we experimented with an alternate way of sampling. This method was to quickly count the number of women working on a site in order to calculate the sampling frequency needed to achieve a sample of 30 women. Then the workers in each work gang were assembled and every third or fourth (or whatever) woman was selected to be interviewed. After these women were interviewed, we moved to the area where the next gang was working and repeated the

process. This method was used at the majority of worksites. (Slightly different methods were employed with the women working with CONCERN and RDRS; these will be described in detail later.)

Every effort was made to adhere to these procedures in order to achieve a truly random sample. However, field conditions made it very difficult at times to achieve these goals. When we arrived at a worksite, our presence caused considerable commotion and many women stopped working in order to watch us. When we tried to assemble the women in the first work gang, many times women would line up with the work gang even though they were not actually a member of that gang. They did this out of curiosity and a desire to be one of the first women we talked to. Thus, later in the day as we had moved down the road to further work gangs, we would sometimes see women working who had already been interviewed as supposed members of the first work gang. This was not a frequent occurrence, however, and we do not think that it substantially affected our findings. We believe that our sample was as randomly selected as is possible given the reality of field conditions in Bangladesh.

Field Visits and Survey Procedures

During the field work, a total of 355 interviews were successfully completed. This number does not include the 51 interviews that were conducted during the pre-testing phase, nor does it include a few interviews that were not completed for various reasons. For example, a few interviews were attempted with very young girls but it was found that they could not understand the questions. One interview was terminated because in the judgement of one of the authors listening to the interview, the woman was clinically depressed and unable to respond appropriately. Another interview was completed but not included in the analysis because it was apparent that the woman was not being truthful in her answers.

As stated earlier, the original focus of the study was on women working at earthmoving FFW sites, and therefore the greatest number of interviews were conducted with this type of woman worker. In addition, CONCERN, an Irish relief organization, and the Rangpur Dinajpur Rehabilitation Service (RDRS), sponsored by the Lutheran World Federation, agreed to allow our team to interview women working at their projects. However, in spite of these additional interviews, the majority of the interviews were conducted with women doing earthmoving work, not only because this was the original focus of the research, but also because it remains a fact that the majority of women involved in Food for Work in Bangladesh at the present time are doing earthmoving. Table 52 below illustrates the distribution of interviews at the various projects.

Table 52 Number and Location of Interviews

Sponsoring Organization	Type of Activity	Number of Interviews	(Percent of Total)
CARE	Earthmoving	298	(83.9)
CONCERN	Cottage industries	41	(11.6)
RDRS	Reforestation	16	(4.5)
Total		355	(100.0)

CARE interviews. Rather than trying to interview women all over the country, we decided to focus on three CARE unit offices. CARE Rangpur was chosen to be included in the study because this unit office had the highest number of approved women's projects. After discussions with anthropologists and others familiar with regional differences, CARE Khulna and CARE Comilla were chosen as the other study areas. This choice was made with the goal that Rangpur, Khulna and Comilla would adequately represent any significant regional differences.

Four projects in each unit office were targeted for interviewing; in the case of CARE Comilla, there were only four women's projects, while in Rangpur and Khulna there were more than four.

Several factors influenced the decision regarding which projects from Khulna and Rangpur unit offices were chosen to be included in the sample. First we tried to visit projects where work had been going on for at least several weeks so that women have had sufficient experience. We were also sometimes informed by the CARE unit staff that while a project had supposedly been started, in their field trips they had not seen any women working. We eliminated from our sample projects which were known in advance not to have started. Especially in the Rangpur/Dinajpur area, where there was the largest number of women's projects, we chose projects that were geographically separate to insure that we would pick up any local regional differences. At one project in the Comilla unit, when the research team arrived there were no women present and therefore no interviewing was conducted at this site. At all the other sites, there were enough women present for us to conduct interviews, although in some cases there were very few women actually working on the project. Table 53 on page 135 illustrates the location of each of the worksites included in the sample, the CARE unit office in charge of the various projects, the number of women we counted or estimated to be present at each site, the number of interviews conducted at each site, and the percentage of women sampled at each site.

With the exception of one site, all of the interviews with women doing earthmoving were conducted at the actual worksite. (The one exception occurred at Lalmonirhat thana, where women were being paid the day of the visit. Interviewing was conducted at the location of wheat distribution rather than at the worksite.) The research team arrived at the worksite as early in the morning as possible, and conducted interviews with the women workers until our target number of interviews had been reached or until the women stopped work for the day.

The variance in numbers of interviews at each project reflects several possible differences from project to project. In some cases, such as Kasba and Jessore Kotwali, there were very few women actually working at the project site, and almost every woman present was interviewed. In other cases, such as Lalmonirhat and Gaibanda, the project site was located three to four hours travel from where the research team had been able to secure lodgings and our arrival at the project site was delayed until midmorning. This delay restricted the number of interviews which could be conducted, before the women began to leave the project site at the end of the day.

Table 53 Number and Location of CARE Interviews

Unit Office	Project Location	No. of Women Present	No. of Women Interviewed	% of Women Interviewed at Each Site
Comilla	Brahmanbaria	100	37	(37.0)
	Daudkandi	51	35	(68.6)
	Kasba	20	16	(80.0)
Sub-total for Comilla		167	88	(52.7)
Khulna	Jessore Kotwali	28	24	(85.7)
	Kaliganj	85	33	(38.8)
	Monirampur	68	29	(42.6)
	Satkhira	150	28	(18.7)
Sub-total for Khulna		331	114	(34.4)
Rangpur	Birganj	203	26	(12.8)
	Gaibanda	111	25	(22.5)
	Lalmonirhat	20	20	(100.0)
	Parbatipur	90	25	(27.8)
Sub-total for Rangpur		424	96	(22.6)
Total for all CARE projects visited		822	298	(36.3)

CONCERN interviews. CONCERN agreed to allow our research team to conduct interviews at two of their projects, in Khulna and in Mirpur. These interviews were conducted at their Women's Training Centers where women come each day to a central workplace and are engaged in a variety of cottage and handicraft industries. The distribution of interviews at CONCERN projects is presented in Table 54 below.

Table 54 **Number and Location of CONCERN Interviews**

Project Location	Number of Women Present	Number of Women Interviewed	Percent of Women Interviewed at Each Site
Khulna	180	21	(11.6)
Mirpur	150	20	(13.3)
Total	330	41	(12.4)

All of these interviews were conducted within the CONCERN sponsored work center during one day for each work center. The number of interviews was restricted to approximately 20 at each site because this was the maximum number of interviews that was possible within the time available for interviewing. The sampling method used at the CONCERN centers was similar to that used at the CARE projects, with one exception. At the CONCERN centers, women are engaged in a variety of tasks, such as wood working, rope making, cane work, and so forth. Instead of sampling the same number from each work group, a proportional number was selected to insure a representative sample. If 20 women out of the 180 total were involved in cane work, for example, we chose a random sample of two women from this work group to be interviewed. The number sampled in each work group was the number required to reach our goal of approximately 20 interviews and to make sure that

each work group was neither over nor under-represented in our sample.

RDRS interviews. At the time of our field interviewing, RDRS had only one project in which women were involved in Food for Work activities. This is a tree planting and tending project in which thousands of saplings have been planted along an embankment and every half mile a woman has been chosen to tend the 350 trees in her area. A total of 26 women are employed in this scheme, of whom we were able to interview 16. The RDRS interviewing involved the most complicated logistics we encountered as the women were not working at a central worksite but rather were spaced out every half mile along the embankment. To be consistent with our procedures at the other interviewing sites, we allowed one day for the RDRS interviews. Because of the road conditions and distance between each worker, we decided to interview consecutive women employed by RDRS along the embankment. Although our goal had been at least 20 interviews, our progress along the embankment was slowed by the terrible road conditions, and after 16 interviews were conducted it was necessary to terminate the interviewing.

The interview form as it is reproduced in Appendix B was administered exactly as presented to all women involved in the CARE earthmoving projects. When the interviews were with women not doing earthmoving, several questions were changed, and others were simply eliminated. For example, the questions relating to how many years a woman had been doing earthmoving, how many weeks she had been doing earthmoving, and so forth, were simply eliminated. On the other hand, other questions such as "How do you come to work in the field?" were changed to "How do you come to work here?" A few questions were added for use specifically with CONCERN and RDRS workers. These women were asked if they had ever done earthmoving work in the past, what their earnings had been, and if they would do earthmoving again in the future. It is

not believed that these slight changes had any effect on the answers other than making the question appropriate for the women's own situation.

Special Considerations in Conducting Field Work

The collection of data in rural areas of Bangladesh is not an easy proposition. Difficulties in transportation and communication were certainly encountered in this study. Food for Work projects tend to be located in remote areas and getting to projects required up to three and a half hours of traveling by jeep over rough roads and embankments. In a number of cases, after the lengthy period of traveling in the jeep, it was also necessary for us to walk a considerable distance to reach a project site. The lengthy time spent traveling to a project site had several implications for the study. First, as noted previously, it sometimes restricted the number of interviews which could be conducted. Perhaps more importantly, it also was a physically exhausting experience which sometimes left the research team tired and worn out before the interviewing had even begun. The authors were careful to watch for excessive fatigue on the part of the interviewers, knowing that a hot, overly tired interviewer cannot conduct a good interview. This occurred when the women working for RDRS were interviewed. The authors made the judgement that the interviewers were becoming exhausted and terminated the interviewing prior to the attainment of our anticipated number of respondents. We believe that it is better to contact fewer respondents than to have some interviews conducted when the interviewers' ability to conduct a good interview is affected by adverse field conditions.

Fatigue and exhaustion on the part of the interviewers can be caused by factors other than excessive travel. Typically, the FFW worksites are in large fields where there is no shelter, shade or comfortable place to sit. Interviewing for four or five hours under such conditions is extremely difficult. In addition, our work was often watched by hundreds of onlookers, which also contributes to fatigue.

When such difficult field conditions are present in a research project, there may be several deleterious results. Sometimes the interviewers may conduct interviews in such an exhausted and demoralized condition that the value of the interviews they conduct is questionable. In other cases, surveyors conduct a few interviews, learn the general pattern of responses, and subsequently sit in an office somewhere and fill out fictitious interviews in order to avoid having to contend with such difficult field conditions.

We went to considerable efforts to avoid either of these possibilities. The interviewers were never sent out unaccompanied, we always traveled in a team with at least one of the authors and usually both present. The interviewers were supervised daily, and interviews which they were conducting were observed and listened to frequently by one of the authors. Each night after the interviewing was finished, the interviewers and the authors discussed together any problems or confusions that might have occurred during the day's work. We made sure to provide for adequate lodgings and meals so the interviewers did not become overly fatigued. We scheduled the field visits so that approximately one week was needed to finish the interviewing at each of the three locations of Comilla, Khulna and Rangpur. We scheduled these field trips so that we had at least one week in Dacca between field trips, partly so that some coding could begin and also so that the entire research team had some time for recuperation before venturing out in the field again. We also made every effort to maintain high moral among the research team, and to instill a high sense of loyalty, not only to the research team but also to the principles of scientific inquiry.

Another potential pitfall in a study of this nature is an inappropriate interview form or questionnaire, or one that is too complex to be administered properly in the field. We believe that the extensive pre-testing and revising we did of the interview form helped us prevent this problem from significantly affecting our findings. We identified in advance those questions

which caused confusion or which elicited answers of questionable reliability, and we either changed the question or eliminated it altogether.

Inexperience on the part of surveyors with an interview form or with a questionnaire can also lead to problems in the data. Sometimes researchers will spend an adequate amount of time pre-testing their questionnaire or interview form and then hire their surveyors only a few days before actual field work begins. A perfectly designed interview form used by inexperienced, inadequately trained interviewers can give as faulty findings as when a poor interview form is used. As noted earlier, our interviewers were all hired well in advance of the actual field work. They received extensive training, and participated in the pre-testing of the interview form. Fifty-one interviews were conducted during the pre-testing; this is one seventh of the number that were conducted with the final version of the interview form. Thus, the interviewers were well acquainted with the interview form prior to its actual implementation in the field and had considerable experience in conducting the interviews.

Another problem that can occur in a research study is that the questions are worded in a style that the interviewees are not accustomed to, or that vocabulary is used that is unfamiliar to the interviewees. We were well aware of this potential problem and this was a major concern during the pretesting. One principle of question is to keep questions as short and concise as possible. However, this is not the style that rural, illiterate women in Bangladesh are accustomed to using in their normal conversation. As much as possible, we tried to use conversational patterns that were familiar to these rural women. The fact that the researchers and the interviewers are all highly educated in comparison with the interviewees was also a potential problem. During the pre-testing period, the interviewers learned the necessity of using grammatical constructions that are technically incorrect in order to make sure they were understood by the respondents.

The avoidance of asking leading questions is another important principle in interview and questionnaire design. This may seem to be a self-evident point, and while it is relatively simple to avoid obviously leading questions, there are also subtle ways in which a question can be leading. It was the impression of the main author, for whom Bangla is not a native language, that the normal construction of some sentences in Bangla resulted in a subtly leading question. We made every effort to insure that questions were not leading but at the same time sounded natural in Bangla.

There is considerable regional variation in spoken Bangla in Bangladesh. We decided that it would be impractical to design numerous interview forms that would reflect regional language differences. Instead, the interviewers were instructed to vary their pronunciation, intonation and grammar according to the various regional differences encountered, but they were careful not to change the basic meaning of the questions. This situation was encountered especially in the Rangpur/Dinajpur area, where there are greater regional language differences than the other areas visited. Fortunately, one of the interviewers was also from north Bengal, and she was able to instruct the other interviewers in the slang and common expressions of this area.

Interviewer bias. In any survey research project, the fact of interviewer bias, or systematic differences from interviewer to interviewer, must be carefully considered. Some of the bias which may occur can be eliminated through the techniques discussed earlier, such as careful question design, avoidance of leading questions, extensive pre-testing, thorough training and careful supervision of the interviewers, and so forth. However, because interviewers are human beings and not machines or tape recorders, and because human beings do not all work in identical fashion, there is an inevitable degree to which interviewer bias, or interviewer differences, can affect research findings.

Considerable research has been done to explore this issue of interviewer differences, and it has been found that bias may

result regardless of anything a researcher or the interviewer may do to eliminate it. This is because some of what is called interviewer bias is not intentional or even conscious on the part of the interviewer, and occurs as a result of the fact that an interview involves interaction between two or more individuals. The interviewer's perception of the respondent, and vice versa, the respondent's perception of the interviewer, has an unavoidable affect on the answers given.

In most research projects, the problem of interviewer bias is focused on before and during the actual interviewing, and this was also the case in this project. The interview form was designed to reduce the factor of interviewer bias, the sample was selected randomly to eliminate any bias in the sample, and the interviews were selected and trained with the goal of reducing interviewer bias. During the interviewing, as stated earlier, the interviewers were closely supervised to detect any bias. We believe that we did as much as can be done to prevent interviewer bias. In most other studies in which there is little or no mention of interviewer bias, the focus of attention has been on the prevention of this problem.

In this study, however, in addition to our concern with the prevention of interviewer bias, we were also concerned with the detection of interviewer bias. During the computer analysis, each question was carefully analyzed to see if there were significant differences in the responses according to the identity of the interviewer. In those cases in which interviewer bias is a factor, there are two basic methods to deal with this problem.

First, further statistical methods can be employed to eliminate the influencing factor of differences between interviews. For example, we found the responses to the questions relating to marital status were affected by interviewer bias. Careful analysis revealed that interviewer bias affected the numbers reported to be divorced, deserted or separated. We believe this occurred because the women interviewed often did not give a straightforward response to this question, but instead described in detail their

personal situation. It may be that certain interviewers created enough rapport that a woman felt comfortable to honestly state that she had been deserted with no legal divorce, while another interviewer made the woman feel she should describe her marital situation in the most proper way possible. Furthermore, it may be that upon hearing the same complicated story of husband's treatment of his wife, one interviewer would code the response as "divorced" while another would code it as "deserted." In any case, however, we found that if these three categories were recoded, or collapsed into one category, the factor of interviewer bias was eliminated. This same procedure, of combining certain troublesome categories, successfully eliminated interviewer bias in a number of questions.

When this technique did not prove adequate to eliminate or significantly reduce interviewer bias, this fact should be reported. As might be expected, this occurs in questions of a particularly sensitive nature.

We caution the reader from concluding, because we have openly discussed the problem of interviewer bias and because the majority of other research studies do not even mention this problem, that interviewer bias is not a problem in other studies. We believe, and there is considerable experimental evidence to support this statement, that interviewer bias occurs in *all* research studies which involve the use of interview data. We believe that we did far more than is usually done to prevent interviewer bias, but prevention alone is not sufficient. Detection of the exact ways interviewer bias has affected the data is a critical step in data analysis. When analysis to detect interviewer bias is performed, there is the inevitable and unfortunate result that a portion of the data collected becomes questionable and interpretation of this data must be done cautiously. However, this is far preferable to having *all* of the data collected being of questionable value. If a researcher cannot state exactly in which questions interviewer bias is a problem and in which questions it is not a problem, the possibility exists that any or all of the answers have been influenced by interviewer bias.

Procedures used for Data Analysis

It is not uncommon in Bangladesh that data collected in research projects with lengthy questionnaires and with sample sizes as large or larger than that used in this study are analyzed using methods of manual tabulation. The argument is sometimes made that the use of sophisticated computer analysis is not appropriate technology for use in a developing country. We believe that the need for good data analysis is as great in a developing country as elsewhere, and in fact in a situation in which many studies are the first of their kind, the need for good data analysis may be greater than in countries in which there are numerous research projects conducted on the same topic.

There are several limitations to manual data processing which must be considered. First is the fact that manual data processing is subject to a very high error rate. Secondly, manual data processing allows for little more than simple statistical analysis such as tabulating the frequency (percentages) of responses for each question. It is extremely difficult to conduct any correlation analyses using manual data processing. Correlation analysis is valuable to assess the relative influence of several factors (variables) on other variables being studied. While this type of data analysis is theoretically possible using manual data processing, it is exceedingly time consuming and when it is done at all, it is done on only a few variables in a study. One reason why detection of interviewer bias is done in so few studies is because it involves correlating the answers to each question with the identity of the interviewer, and this would be extremely time consuming using manual data processing.

For all of these reasons, therefore, computer assisted analysis of the data was employed in this study. One of the many advantages of computer assisted analysis is that it allows checking for accuracy and consistency of the data. Furthermore, it permits numerous correlation analyses between the variables. It should be noted that while there are only 67 questions on

our interview form, there are actually 180 variables for which data was collected and analyzed.

There were a number of steps followed during the computer analysis. First the data were edited to check for coding and keypunching errors. Next, simple descriptive statistics were calculated for each question to determine how many women had responded to each possible answer. Recording or combining several categories into one category was performed on a number of variables. One reason for this was to eliminate interviewer bias; a more common reason was to simplify the tables that were created. It is much easier to understand the differences within a group if there are two or three different categories rather than seven, eight or more. The way in which categories are combined must be based on theoretical considerations (response categories that are contradictory cannot be combined into one category) and practical considerations (several response categories in which there are only a few cases can be combined into one, larger category).

Finally, numerous correlation analyses were carried out. There are literally hundreds of thousands of possible correlations which could be calculated and in fact several thousand correlations were performed. Correlation analyses also facilitate checking for consistency and accuracy in the data. For example, question number 3 of the interview form was correlated with marital status and with number of children living. This verified that no unmarried women were coded as having said that their husband wanted them to work, or that no childless women were coded as having said that they worked in order to feed their children. This type of data checking was done with a number of variables to check for errors and logical inconsistencies in the data. It is a credit to the interviewers that virtually no errors of this nature were detected.

Theoretical considerations also influenced which variables were analyzed in relation to other variables. In other words, sets of variables were chosen for correlational analysis on the

basis of findings of other studies, observations by the researchers, and results of the data already analyzed. When the statement "further analysis was performed" is encountered in the chapters describing the research findings, what is meant is that additional correlations were performed on the computer. Sometimes this meant introducing several new variables into the analysis; sometimes this meant experimenting with different ways of recoding the variables being analyzed.

Statistics used. There are two basic types of statistics which are reported in this study. One type is *descriptive statistics*, which summarize and describe the variables used in the study. The average, or mean, is one descriptive statistic. Another is the standard deviation, which measures the amount of variability in the responses to a variable. It is a way of determining how representative the "average" statistic is. For example, if the average age of a group of individuals is 30 years with a standard deviation of five years, 68% of the individuals will be found to be aged plus or minus five years from the average, or within one standard deviation of the mean. Thus, 68% of the individuals would be aged from 25 to 35. Furthermore, 95% of the individuals would be within 10 years, or two standard deviations of the mean, or would be aged from 20 to 40 years. A standard deviation of 12 years would mean that 68% of the individuals would be aged from 18 to 42 years, and so forth.

The other primary type of statistics used is *inferential statistics*. Inferential statistics are used to generalize a finding from the sample to the entire population from which the sample is drawn. Inferential statistics are calculated based on the degree of difference between two or more groups being studied. For example, let us suppose that Hindu women have a different rate of fertility than do Muslim women in our study. A statistic such as Chi-square is calculated to measure if the difference between these two groups of women in our sample was greater than would be expected to have occurred by chance. If Chi-square is found to be statistically significant, it means that there is

little or no probability that the differences have occurred by chance, and furthermore that we can generalize from our sample to all Hindu women and all Muslim women. When a Chi-square is reported to be significant at less than the .05 level, it means that there is less than a 5% possibility that the differences between groups have occurred by chance. When the Chi-square is reported significant at less than .01, it means that the chance factor has been reduced to only 1%; when the level of significance is less than .001 it means that there is less than a .1% possibility that the findings have occurred because of chance.

Several other points should be made about the tables. The reader will note that while a total of 355 interviews were conducted, the total number reported is often less than 355. This occurs for several reasons. First, if the question or variable relates only to women involved in earthmoving projects, the total number of possible responses is 298. In addition, in a number of cases, several women did not answer the question, or the interviewer felt that the woman did not understand the question and therefore left it blank. When this occurs, the total number of respondents on a particular variable is less than either the total of 355 or the earthmoving total of 298.

In the discussion of research findings, when appropriate, the findings on all 355 women are analyzed together, but the reader should remember that in some cases, the questions were changed slightly for the women not engaged in earthmoving labor. Furthermore, the reader will note that at times in the analyses, the women working in both the CONCERN centers and with RDRS are combined into one group, whereas at other times the CONCERN women and the RDRS women are discussed separately. The authors tried the analyses in both ways, especially since the small numbers involved with RDRS make it preferable to combine them with the CONCERN women to make a larger group. Whenever the RDRS women presented approximately the same distribution on a variable as the CONCERN women, they are included with the CONCERN women so that there

are two basic groups ; earthmovers and non-earthmovers. However, it was apparent that the RDRS women were uniquely different from the CONCERN women, they are treated as a separate group, in spite of the small number involved.

Summary

1. A research methodology using a structured, fixed-choice interview form, a medium sized sample, and computer data processing was chosen for this project.
2. In designing our interview form, we found that the importance of thorough pre-testing cannot be overemphasized. We spent five weeks pre-testing and rewriting the interview form ; only three weeks of field travel were required to conduct all of the interviews. Thus, we spent almost twice as much time perfecting our interview form as we did in its actual implementation.
3. Random sampling techniques were used to select the women to be interviewed.
4. A total of 355 interviews were successfully completed : of these, 298 were with women working at CARE earthmoving projects, 41 with women working at CONCERN work centers, and 16 were with women employed in a reforestation project sponsored by RDRS.
5. A number of problems which can potentially affect research findings are described and the measures taken to prevent or correct for these problems are discussed.
6. The advantages of using computer data processing and the various analytical procedures made possible by the use of computer processing are described. A brief explanation of statistical terms used is included.

Appendix B

Interview Form

The following is a translation of an interview used with women labourers on Food for Work earth-moving projects. The original interview uses simple, village-style Bangla and is appropriate for the village women who are interviewed. The simple English used in this translation reflects the tone of the Bangla interview.

This introduction was used by the interviewers when first beginning to talk with each woman interviewee :

QUESTIONNAIRE ON WOMEN IN FOOD FOR WORK

I would like to talk with you now. I am not an employee of CARE and I am not a government employee. I have come to listen to you and to learn your opinion. I will not tell others what you will tell me. I will not even write your name on my paper. Whatever you tell me I will keep secret. So, you have nothing to fear from talking to me. I do not have time to talk to everyone here, but I would like you to answer my questions as briefly as you can. When I am finished, you can tell me anything more you have to say. What I learn from you may someday help the women of Bangladesh. Even before we start, I want to thank you. Come and let us start.

- Card Number 1
- 1
- 2-4
- Respondent Code
- 5
- Unit Office Code
- 6-9
- Project Number
- 10
- Interviewer Code
- 1a. Have you ever done earth-digging before ?
(Mark in only one place) 11
- 1 Yes
- 2 No
- 1b. (If yes) For how many years have you done it ?
(Mark in only one place) 12
- 1 One year
- 2 Two years
- 3 Three years
- 4 Four years
- 5 Five years
2. How long have you been working on this project ?
(Mark in only one place) 13
- 1 Less than one week
- 2 1 to 2 weeks
- 3 3 to 4 weeks
- 4 5 to 6 weeks
- 5 7 to 8 weeks
- 6 More than 8 weeks
3. How many days in a week are you doing earth-digging ?
(Mark in only one place) 14
- 1 1 to 3 days
- 2 4 to 6 days
- 3 7 days
4. According to the rules, how many seers of wheat are you supposed to get ?
(Mark in only one place) 15
- 1 Less than 2 seers per day
- 2 2 to 2½ seers per day
- 3 3 to 3½ seers per day
- 4 4 to 4½ seers per day
- 5 5 seers or more per day
- 6 3 seers for 50 cu. ft. of earth dug
- 7 More than 3 seers for 50 cu. ft. of earth dug
- 8 Amount of wheat received is related to how much earth is dug
- 9 Do not know

5. How many seers of wheat do you actually get per day ?

(Mark in only one place)

16

- 1 Less than 2 seers per day
- 2 2 to $2\frac{1}{2}$ seers per day
- 3 3 to $3\frac{1}{2}$ seers per day
- 4 4 to $4\frac{1}{2}$ seers per day
- 5 5 seers or more per day
- 6 3 seers for 50 cu. ft. of earth dug
- 7 More than 3 seers for 50 cu. ft. of earth dug
- 8 Do not know

6a. After you go home, do you weigh your wheat ?

(Mark in only one place)

17

- 1 Yes
- 2 No
- 3 Do not know or have not yet received a payment

6b. (If yes) Do they give you the right amount ?

(Mark in only one place)

18

- 1 Yes, always
- 2 Sometimes
- 3 Rarely or never
- 4 Do not know

7. What quality of wheat do they give you ?

(Mark in only one place)

19

- 1 Good
- 2 Fair
- 3 Bad
- 4 Do not know

8a. How do you come to work in the field ?

(Mark in only one place)

20

- 1 By foot
- 2 By truck
- 3 By bus
- 4 By other means

8b. (If by foot) How long does it take you to reach the field ?

(Mark in only one place)

21

- 1 Less than $\frac{1}{2}$ hour
- 2 $\frac{1}{2}$ hour to 1 hour
- 3 More than 1 hour but up to 2 hours (including 2 hours)
- 4 More than two hours

8c. (If by bus or truck) What or how much do you have to pay ?

(Mark in only one place)

22

- 1 1 seer of wheat or less per day
- 2 More than 1 seer per day
- 3 2 taka or less per day
- 4 More than 2 taka per day
- 5 No cost
- 6 Do not know

9. What do you do with the wheat you get ?

(Mark in only one place)

23

- 1 All is taken for household use
- 2 Some is eaten now; some is saved for the future
- 3 Some is eaten now; some is sold
- 4 All the wheat is sold
- 5 Some or all is loaned to other people
- 6 Wheat is used to repay previous loans
- 7 Do not know

10a. (If some or all is sold)
How many seers of wheat do you sell in a week ?

(Mark in only one place)

24

- 1 1 to 5 seers
- 2 6 to 10 seers
- 3 11 to 15 seers
- 4 16 to 20 seers
- 5 More than 20 seers
- 6 Do not know

10b. For how much do you sell each seer of wheat ?

(Write in the amount)

25—28

Per seer of wheat
Tk. Ps.

Per seer of wheat 29—32

flour
Tk. Ps.

11. Why have you come for earth-digging work ?

(Mark in only one place. If the woman gives various reasons, ask which is the main reason.)

33

- 1 I have no food at home
- 2 The income of one person is not enough to support the family, so my husband asks me to work
- 3 I have to work to feed my children
- 4 Other family members want me to work
- 5 The government wants me to work
- 6 I need money

12. How did you get the news of earth-digging in this area?

(Mark in only one place)

34

- 1 Through gang leaders
- 2 Through other women working in this area
- 3 Through committee members
- 4 Through other persons
- 5 I learned of it myself

13a. After this project is finished will you do earth-digging in another field ?

(Mark in only one place)

35

- 1 Yes
- 2 No
- 3 Do not know

- 13b. (If no) Why will you not do it ?
(Mark in only one place)
- 36
- | | | |
|---|--|--|
| 1 | The work is too difficult | |
| 2 | The wheat payment is not sufficient | |
| 3 | If the worksite is too far I will not work | |
| 4 | With this work, there are many difficulties (for example, worrying about children at home, etc.) | |
| 5 | Do not know | |
| 6 | Others (write in detail) | |
| | _____ | |
| | _____ | |
| | _____ | |
14. What difficulties do you face in the work field ?
(If necessary, mark more than one place)
- | | | |
|----|---|----|
| 37 | No place where we can eat or no food stall nearby | 37 |
| 38 | No latrine nearby | 38 |
| 39 | No water or tube-well nearby | 39 |
| 40 | Men tease women workers | 40 |
| 41 | The work is hard so I get tired | 41 |
| 42 | I worry about my children at home | 42 |
| 43 | The supervisors or gang leaders bother us | 43 |
| 44 | There is no time to eat or rest during work in the field | 44 |
| 45 | The work place is too far from my home | 45 |
| 46 | I feel hot while working the whole day in the field | 46 |
| 47 | I cannot get my housework done because I am busy all day in the field | 47 |

15. What do people of your bari think or say about your doing earth-digging in the field ?

(Mark in only one place)

48

- 1 They object
- 2 They do not object; they say I should work because we need the wheat
- 3 They say nothing
- 4 They say nothing because the government encourages this work
- 5 They support it (if the woman says in a word, good)
- 6 Some say good, some say bad
- 7 Do not know

16. What do people of your para think or say about your doing earth-digging in the field ?

(Mark in only one place)

49

- 1 They object
- 2 They do not object; they say I should work because we need the wheat
- 3 They say nothing
- 4 They say nothing because the government encourages this work
- 5 They support it (if the woman says in a word, good)
- 6 Some say good, some say bad
- 7 Do not know

17a. Are there any women you know who are not working now or in the past who want to work with you in the field ?
(Mark in only one place)

50

- 1 Yes
- 2 No
- 3 Do not know

- 17b. (if yes) Why do they not come to work ?
(Mark in only one place).
If the woman gives more than one answer, ask which is most important.)
- 51
- 1 They do not get the correct information, or they hesitate to come to work
 - 2 No new women have the opportunity to work
 - 3 Family members prohibit
 - 4 They think the work is too difficult
 - 5 The work is not proper for women
 - 6 The payment is not sufficient
 - 7 The work site is too far from home
 - 8 They do not have proper clothes to go outside
 - 9 Do not know
- 18a. Does anyone prevent you or make it difficult for you to come to the field ?
(Mark in only one place)
- 52
- 1 Yes
 - 2 No
- 18b. (If yes) Who bothers you ?
(You can mark more than one place)
- | | | |
|----|---|----|
| 53 | Family members | 53 |
| 54 | Other relatives or neighbours | 54 |
| 55 | Religious leaders | 55 |
| 56 | Other villagers | 56 |
| 57 | Union council chairman | 57 |
| 58 | Supervisors, project chairman or others connected to this project | 58 |
- 18c. What do they say ?
(You can mark more than one place)
- | | | |
|----|--|----|
| 59 | Women are taking jobs away from men | 59 |
| 60 | No one will marry women who do such work | 60 |
| 61 | Earth-digging is not proper work for women | 61 |
| 62 | This work is against religious law for women | 62 |
| 63 | They say there is no need to do this work | 63 |
| 64 | Other reasons | 64 |
-
-

19. Are you a gang leader ? 65
- 1 Yes
 - 2 No
- 20a. Are there any women on the Committee for this project ? (Mark in only one place) 66
- 1 Yes there are women on the Committee
 - 2 No there are no women on the Committee
 - 3 I do not know if there are any women on the Committee
 - 4 I do not know anything about the Committee
- 20b. (If yes) Do you know them ? 67
- 1 Yes
 - 2 No
- 20c. (If yes) Do they help you in this work ? 68
- 1 Yes
 - 2 No
- 21a. Are you a member of any women's societies ? 69
- 1 Yes
 - 2 No
- 21b. (If no ask question 22. If yes ask) Do you have to be a member of a women's society to work in this field ? 70
- 1 Yes
 - 2 No
 - 3 Do not know
- 21c. How much money do you have to deposit to become a member of the society ? (Write in the number) 71
- 71 Nothing
- 72 - 73
- 72 - 73 Per week, pay Taka
- 74 - 75
- 74 - 75 Per month, pay Taka
- 21d. Does this society help you in any way ? 76
- 1 Yes
 - 2 No

- | | | | |
|--|---|--|---|
| <p>Card Number</p> <p>Respondent Code <input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></p> <p>21e. (If yes) How do they help you? (If necessary, mark in more than one place)</p> <p>5 If there is any earth-digging work in other places they inform us</p> <p>6 They teach us about poultry raising, garden- ing, cottage in- dustries, etc.</p> <p>7 They teach us about health and family planning</p> <p>8 They give us loans</p> <p>9 They teach us how to read and write</p> <p>10 Others (write in detail)</p> <p>22. Suppose, if you were to plant trees, and in payment you would get wheat ; would you do this work ?</p> | <p>1</p> <p>2</p> <p>2 - 4</p> <p><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> | <p>23. Suppose, if you were to build a latrine, and in payment you would get wheat ; would you do this work ?</p> <p>1 Yes</p> <p>2 No</p> <p>3 Do not know</p> <p>24. Suppose, if you were to do poultry raising or kitchen gardening, and in payment you would get wheat ; would you do this work ?</p> <p>1 Yes</p> <p>2 No</p> <p>3 Do not know</p> <p>25. Suppose, if you were to go and learn about health care and family planning, and in payment you would get wheat ; would you do this ?</p> <p>1 Yes</p> <p>2 No</p> <p>3 Do not know</p> <p>26. Would you work in cottage industries for a payment of wheat ?</p> <p>1 Yes</p> <p>2 No</p> <p>3 Do not know</p> | <p>12</p> <p>13</p> <p>14</p> <p>15</p> |
|--|---|--|---|

27. **Would you do handicrafts for a payment of wheat ?**
16
- 1 Yes
 - 2 No
 - 3 Do not know
28. (If a woman answers yes to any question from 22 to 27 ask) **How long will you do this work ?**
(Mark in only one place)
17
- 1 Every day throughout the year
 - 2 Several months of the year
 - 3 All through the year except during the harvest
 - 4 Several days in a week
 - 5 Do not know
29. **What is your age ?**
(If the woman cannot give an answer, then ask the age of her eldest child. Estimate which you think is the correct age.)
18
- 1 10-19 years
 - 2 20-29 years
 - 3 30-39 years
 - 4 40-49 years
 - 5 50-59 years
 - 6 60 years or more
30. **What is your religion ?**
(Mark in only one place)
19
- 1 Muslim
 - 2 Hindu
 - 3 Buddhist
 - 4 Christian
31. (If there are any tribal people in the area, ask) **Are you a tribal person ?**
20
- 1 Yes
 - 2 No
32. **Are you married ?**
(Mark in only one place)
21
- 1 Married (first marriage)
 - 2 Second (or more) marriage
 - 3 Widow
 - 4 Divorced
 - 5 Never married
 - 6 Separated (husband did not divorce according to laws)
 - 7 Deserted

33a. (If woman is now married, and not divorced or widowed, ask) Does your husband live with you ?

22

- 1 Yes
- 2 No

33b. Do you do family planning ?

23

- 1 Yes
- 2 No

33c. Are you pregnant ?

24

- 1 Yes
- 2 No

33d. Are you nursing a baby ?

25

- 1 Yes
- 2 No

34. (If the woman has ever been married, ask) How many times did you give birth ?

(Write in the number)

26—27

28

How many sons are living now ?

29

How many daughters are living now ?

35. (If the woman has any children ask) Who usually looks after your children when you are working in the field ?

(Mark in only one place)

30

- 1 Older children look after younger children at home
- 2 I bring the younger children to the field
- 3 Older children look after younger children in the field
- 4 The children are grown up
- 5 Other relatives look after the children at home

36. Can you read ?

31

- 1 Yes
- 2 Now learning
- 3 No

37. Can you write ?

32

- 1 Only my name
- 2 Yes
- 3 Now learning
- 4 No

38. Did you ever go to Madrassah ?
(Mark in only one place)
- 33
- 1 Yes, but for one month or less
2 Yes, more than one month
3 No
- 39a. Did you ever read in primary school ?
- 34
- 1 Yes
2 No
- 39b. (If yes) Up to which class did you read ?
(Mark in only one place)
- 35
- 1 Class one to two
2 Class three to four
3 Class five to six
4 More than class six
- Yes No
- 40a. Does your father live with you ? 36
- 40b. Does your mother live with you ? 37
- 40c. Do your children ? 38
- 40d. Do your grandchildren ? 39
- 40e. Does your brother or brother-in-law ? 40
- 40f. Does your sister or sister-in-law ? 41
- 40g. Other relatives ? 42
- 40h. Other people? (Not relatives, such as ser-vants, etc.) 43
41. What is the name of your village ?
- 44 — 46
-
42. What is the name of your para ?
- 47—49
-
43. For how many people do you cook in your chula ?
(Write in the number)
- 50—51
- 1 How many adults including your-self ?
- 52—53
- 2 How many children ?
44. How many times a day do you light your chula ?
(Write in the number)
- 54
-

45a. Does your family have enough food ?

55

- 1 Yes
- 2 No

45b. (If no) When is there no food for your family ? Or when is there hardship for your family ?

(Mark in only one place)

56

- 1 Every day
- 2 Many days in a week
- 3 One day in a week
- 4 During the monsoons
- 5 Other times (write in detail)

47a. Whose income is highest in your family ?

(Mark in only one place)

60

- 1 Mine
- 2 Husband
- 3 Father
- 4 Mother
- 5 Brother
- 6 Sister
- 7 Other male members of family
- 8 Other female members of family

46a. Does anyone in your family own land ?

57

- 1 Yes
- 2 No
- 3 Do not know

46b. (If yes) How many bighas are owned ?

(Write in the number)

58—59

□□

47b. (If she answers that the income of another is highest, not herself, then ask)

What does he (or she) do?
(Write in the number which is the main source of income)

61--62

- 01 Farmer cultivating his own land
- 02 Farmer cultivating on other's land
- 03 Earth-digging or other manual labour
- 04 Rickshaw wallah or cart wallah
- 05 Peddler, shopkeeper or village businessman
- 06 Weaver, tailor, craftsman
- 07 Fisherman
- 08 Boatman
- 09 Money lender
- 10 Factory worker (such as rice mill, jute mill)
- 11 Government office worker
- 12 Non-government office worker
- 13 Doctor, teacher, other professional
- 14 Religious leader
- 15 Traditional midwife, ayah
- 16 Work in other people's household
- 17 Other (write in detail if none of the above apply)

47c. (If she answers that the income of another is highest, not herself, then ask)

How much does he (or she) earn per month?

(If she takes a long time to answer, then read the answers one by one and ask which one is closest.)

63

- 1 Less than 100 taka in a month
- 2 100 to 199 taka in a month
- 3 200 to 299 taka in a month
- 4 300 to 399 taka in a month
- 5 400 to 499 taka in a month
- 6 500 taka or more in a month
- 7 Do not know

48a. **In addition to earth-digging, do you do dheki processing?**

64

- 1 Yes
- 2 No

48b. (If yes) How much do you earn in a day ?

(Mark in only one place from each group)

Group 1 (Mark only one)

- 1 Less than one seer of rice in a day
- 2 One seer of rice a day
- 3 $1\frac{1}{2}$ to 2 seers of rice in a day
- 4 $2\frac{1}{2}$ to 3 seers of rice in a day

Group 2 (Mark only one)

- 1 One meal a day
- 2 Two meals a day
- 3 Three meals a day

Group 3 (Mark only one)

- 1 Less than 5 taka in a day
- 2 5 to 10 taka in a day
- 3 11 taka or more in a day

Group 4 (Mark only one)

- 1 I earn nothing. The rice I husk is used for my family.
- 2 I husk my family's rice and then sell it for family expenses.
- 3 I earn nothing. The work I do is for relatives.

49a. Do you do part-time work in the households of other people in your village ?

(Such as housecleaning, sewing or agricultural work, etc.)

- 1 Yes
- 2 No

49b. (If yes) How much do you earn in a day ?

(Mark in only one place from each group)

Group 1 (Mark only one)

- 1 Less than one seer of rice in a day
- 2 One seer of rice a day
- 3 $1\frac{1}{2}$ to 2 seers of rice in a day
- 4 $2\frac{1}{2}$ to 3 seers of rice in a day

65

66

67

68

69

70

- Group 2 (Mark only one)
- 71 Card Number 1
3
- 1 One meal a day 2 — 4
- 2 Two meals a day
- 3 Three meals a day
- Group 3 (Mark only one)
- 72 Respondent Code
50. Other than these types of work, what other work do you do for money or for food? Not for your own use.
- | | Yes | No |
|---|-----|----|
| 5 Do you sew kathas? | 5 | |
| 6 Do you weave lungi gamcha or sari? | 6 | |
| 7 Do you do jute work, bamboo or cane work or other handicrafts? | 7 | |
| 8 Do you do poultry or live-stock raising? | 8 | |
| 9 Do you do vegetable gardening or tend spice trees? | 9 | |
| 10 Do you do gleaning from the fields or pick chillies or do planting in the rice fields? | 10 | |
| 11 Do you work in a rice mill? | 11 | |
| 12 Do you do any other work for taka or food? | 12 | |
- 49c. Does anyone else in your family do earth-digging?
- 73
- 1 Yes
- 2 No
- (If yes) How many?
- (Write in the number)
- 74
- Who does this work?
- 75 Mother 75
- 76 Father 76
- 77 Husband 77
- 78 Children 78
- 79 Brother, brother-in-law 79
- 80 Sister, sister-in-law 80

51. If such times come that you have no work to do and no food in your house, then what do you do?

(Mark in only one place)

13

- | | | |
|---|-------------------------|---|
| 1 | I beg | 1 |
| 2 | I go without food | 2 |
| 3 | I borrow from shops | 3 |
| | or from other people | |
| 4 | I borrow from relatives | 4 |
| 5 | Other (write in detail) | 5 |

6

7

8

52. Who usually goes to the market in your family?

(Mark in only one place. If the woman mentions more than one person, then ask her who goes to the market most of the time.)

14

- | | |
|---|------------------------------------|
| 1 | I go myself |
| 2 | Husband |
| 3 | Father |
| 4 | Son |
| 5 | Daughter, granddaughter or niece |
| 6 | Mother |
| 7 | Other female members of the family |
| 8 | Other male members of the family |

(If the woman answers that she goes herself or her mother or other adult women (1, 6, 7) then ask question 53 a & b. If she answers that her daughter, granddaughter or niece (5) goes to the market, then ask question 54 a, b, & c. If she answers any male member of family (2, 3, 4, 8) goes to the market then ask question 55a.)

- 53a. In going to the market, are there any difficulties ? 15
- 1 Yes
 - 2 No
- 53b. (If yes) What are the difficulties ?
- (If necessary mark in more than one place)
- | | |
|---|----|
| 16 Shopkeepers cheat | 16 |
| 17 She cannot keep an account correctly so she gets cheated | 17 |
| 18 Men tease women who go to the market | 18 |
| 19 The market is very far away | 19 |
| 20 Village people do not like women who go to the market | 20 |
- 54a. (If her daughter, granddaughter or niece go to the market ask) How old is she ?
- (Write down the age)
- 21-22
-
- 54b. Does she face any difficulty in the market ?
- 23
- 1 Yes
 - 2 No
 - 3 Do not know
- 54c. (If yes) What are the difficulties ?
- (If necessary mark in more than one place)
- | | |
|---|----|
| 24 Shopkeepers cheat | 24 |
| 25 She cannot keep an account correctly so she gets cheated | 25 |
| 26 Men tease her | 26 |
| 27 The market is very far away | 27 |
| 28 Village people do not like women who go to the market | 28 |
- 55a. If there were a market just for women, or a corner of the market just for women, would you go to that market ?
- 29
- 1 Yes
 - 2 No
 - 3 Do not know

55b. (If yes) Why will you go ?

(If necessary mark in more than one place)

- 30 No possibility of being cheated 30
- 31 I can sell my goods at a fair price 31
- 32 There is no one else at home who can go to the market 32
- 33 I like to go to the market 33
- 34 If the necessity arises I will go to the market 34
- 35 I will go to such a market because men would not be able to bother me 35

(If the woman answers No to question 55a, then ask 55c. If the woman answers Do Not Know, then ask question 56.)

55c. Why will you not go ?

(If necessary mark in more than one place)

- 36 My husband prohibits 36
- 37 Other family members prohibit 37
- 38 Other villagers prohibit 38
- 39 Religious law prohibits women from going to the market 39
- 40 The market is too far away 40
- 41 I have no desire to go to the market 41

56. What is your idea about village women who work outside their bari ?

(Mark in only one place)

42

- 1 There is no problem
- 2 If there is no food at home then we have to work
- 3 If you behave properly, then the world will treat you well (This is a Bangla proverb.)
- 4 There is no need for women to do this type of work
- 5 It is against religious law
- 6 They will get a bad name
- 7 Do not know

57. If a woman earns money, who should decide how to spend the money ?

(Mark in only one place)

43

- 1 Herself
- 2 Husband will decide
- 3 Both husband and wife will decide
- 4 Other male members of family will decide
- 5 Do not know

58. What do you think about a widow who has no one to support her, if she comes outside her bari to support her family ?

(Mark in only one place)

44

- 1 She will get a bad name
- 2 It is not good but if the need is there she must work
- 3 If she supports herself she will get respect
- 4 In order to prove her chastity a widow should work inside her bari
- 5 It is against religious law
- 6 Do not know

59. What do you think about village women who want to learn how to read and write?

(Mark in only one place)

45

- 1 It is good
- 2 There is no need
- 3 It is against religious law
- 4 Not bad, not good
- 5 It is bad
- 6 Do not know

60. **What do you think about village women who learn how to ride a bicycle ?**
(Mark in only one place)
46
- 1 They should learn
 - 2 There is no need to learn
 - 3 It is good to learn
 - 4 It is against religious law
 - 5 Do not know
61. **Would you be willing to do earth-digging in a place where men are also working?**
47
- 1 Yes
 - 2 No
 - 3 Do not know
62. **From where do you get your tukri ?**
(Mark in only one place)
48
- 1 I have one of my own or of my family
 - 2 I borrow it from someone (not for money)
 - 3 I borrow it from someone for money
 - 4 I borrow it from someone for a payment of wheat
 - 5 I get it from project chairman or committee for no payment
 - 6 I get it from project chairman or committee for payment

63. From where do you get your kodal ?

(Mark in only one place)

49

- 1 I have one of my own or of my family
- 2 I borrow it from someone (not for money)
- 3 I borrow it from someone for money
- 4 I borrow it from someone for a payment of wheat
- 5 I get it from project chairman or committee for no payment
- 6 I get it from project chairman or committee for payment

64. How many times do you get wheat usually in a week ?

(Mark in only one place)

50

- 1 Once a week
- 2 Twice a week
- 3 Three times a week
- 4 Once in two weeks
- 5 Do not know

65. When did you last get wheat ?

(Mark in only one place)

51

- 1 1 to 3 days ago
- 2 4 to 6 days ago
- 3 1 week ago
- 4 2 weeks ago
- 5 No payment yet
- 6 I cannot remember

66. Did you have to pay any-one money or wheat in order to work here ?

(Mark in only one place)

52

- 1 No
- 2 Yes, I have already paid the gang leaders or supervisors
- 3 Yes, I have already paid the project chairman or committee
- 4 Yes, I will have to pay the gang leaders or supervisors
- 5 Yes, I will have to pay the project chairman or committee
- 6 Do not know

67. (After asking the questions, then indicate what you think about this woman. Mark in only one place.)

53

- 1 The woman did not cooperate with me and I think she objected to answering my questions
- 2 She hesitated to answer me because of fear of others
- 3 She had difficulty understanding my questions
- 4 She had difficulty understanding some of the questions but she cooperated with me
- 5 The woman cooperated with me fully and answered all my questions without any objection

Thank you very much.

. 173'

Appendix C

Literature Review

Introduction

Much has been written about women in Bangladesh, and about rural women and their participation in the work force. This review focuses on the portion of the literature germane to the participation of rural women in the rural work force and in Food for Work projects. The bibliography which is Appendix F lists the sources which are discussed in this review and includes more recent works on women in the work force. It is not an exhaustive bibliography of rural women in Bangladesh. Two excellent comprehensive bibliographies have been prepared previously: one on rural women in Bangladesh, compiled in 1978 by McCarthy, Sabbah and Akhter, and annotated bibliography on women in Bangladesh prepared in 1979 by Islam.

This literature review focuses on five major areas: first, a general discussion of the issues relating to the employment of women and the development of Third World countries; second, a discussion and description of rural women and their lives; third, the participation of rural women in the work force; fourth, the impact and implications of rural women's participation in the paid work force; and, finally, a discussion of the problems and potentials of women's involvement in income generation activities.

Women Employment and Development

Until recently, development planners and researchers have tended to ignore the importance of women's contribution to and involvement in the development of Third World countries. Much

attention has been focused on the problem of the "brain drain" of the educated elite from the poorer developing countries; far less attention has been focused on the internal brain drain that results from the lack of utilization of women's potential contribution to the development of these countries.

In a pioneering study of this issue, Boserup (1970) discussed women's role in economic development and the changes in women's status that accompany the general development of a nation. Increasing educational opportunities for girls in many nations have resulted in increasing numbers of women prepared for employment in white collar and professional occupations. Changes in agricultural work patterns have also resulted in the greater involvement of women in rural manual labor.

Two general conclusions regarding the increasing participation of women in the work force are supported by researchers such as Boserup (1970), Youssef (1974), Kapur (1974), Dixon (1978) and others. First, the general development of a nation may lead to increased employment of women as a result of the positive effects of development. The emancipation of women, the increasing enrollment of girls in school, the growing acceptance of women in occupations and professions formerly thought to be the exclusive domain of men, the mechanization of domestic chores, and so on have all tended to encourage the employment of women. On the other hand, however, the increase in female employment may also be prompted by some of the more negative side effects of development.

Advances in medicine such as the eradication of smallpox, the reduction and treatment of malaria, and so forth have partially contributed to the population explosion in many developing nations. Boserup (1970) outlined the changes in patterns of agricultural work that result from increased population density in rural areas. Throughout the world, in areas in which high population density has resulted in the intense cultivation of irrigated land, women as well as men need to participate in agricultural work in order to support larger families on smaller

plots of land. In an examination of women and work in the Middle East and in Latin America, Youssef (1974) has also identified the weakening of family ties that often accompanies modernization and urbanization as an impetus to the greater involvement of women in work outside the home. Even in Middle Eastern countries where the employment of women is stigmatized, she believes that increasing economic pressures on the family will lead to the greater acceptance of the employment of women.

The relationship between employment and development is a complex one, increasing employment and utilization of manpower can contribute to a nation's development; participation in the wage labor market may also contribute to the individual's development and modernization. In a study of six developing countries, Inkeles and Smith (1974) found that employment in modern productive enterprises can be a major factor in the development of modern attitudes and behaviors. One of the countries involved in this study was Bangladesh, where it was found that a contributor to modernity was not only employment in urban, industrial factories, but also participation in rural cooperatives and village development programs. These findings support their basic assumption that the influence of work and employment can lead to significant personality change in adults. Although this study focused exclusively on adult men, there is no reason to suppose that their findings cannot be generalized to women who are employed in modern occupations or non-traditional types of work. The study of employed women in developing countries is important not only because of the potential contribution to development through their labor, but also because their employment may lead to changes in other aspects of their lives.

Women in Bangladesh : The Ideal and the Reality

Perhaps the most striking feature of the literature regarding Bangladeshi women is the discrepancy between the way that Bangladeshi women are viewed, and the actual way that

Bangladeshi women live. The 1974 Population Census reported that women constitute only 5% of the labor force, but several studies have found that the average woman, even though not in the labor force as defined by the Census, has a longer work day than the average man (Farouk, 1974 Barkat-E-Khuda, 1980a). Many writers have documented that the traditional view of Bangladeshi women is that they are weak and dependent, yet, at the same time, it is clear that all over Bangladesh, women work extremely long hours at hard physical labor.

Observance of *purdah*, the seclusion of women, is certainly a major constraint on the free participation of women in the labor force. Throughout Bangladesh, the number of women who are seen in public places is only a tiny fraction of the total number of people seen. An excellent discussion of the effects of *purdah*, especially on fertility, can be found in Maloney, Aziz and Sarker (1980). Their study documented well the discrepancies in how Bangladeshi women are viewed. Numerous quotations from village people, both male and female, in their study illustrate the pervasive belief in the necessity and benefits of *purdah*. However, data on the actual observance of *purdah* are inconsistent with the stated beliefs in the *purdah* system. 1,522 subjects in their sample were ranked from one to seven in their observance of *purdah*, with ranking number 1 representing relative freedom of movement and number 7 being complete *purdah*. 58.6% of the women interviewed were ranked in categories one and two, which included freedom to go out for work or shopping and freedom to go outside of the village. However, of the male subjects, only 18.7% reported that they allowed their wives this much freedom. In other words, almost 40% of the women reported far more freedom of movement than was admitted to by the men in the study. This inconsistency is illustrative of the discrepancies in the ways that women are viewed and idealized and the actual behavior of the women themselves. This is not meant to dismiss the importance of *purdah* in the lives of Bangladeshi women, but rather to illustrate that actual observance of *purdah* is not as strict as is believed.

An examination of the way in which Bangladeshi women use their time is also illustrative of the discrepancy between the perception and the reality, and it is now obvious that neither status nor respect is accorded them for the work they do and their economic value. The way in which women's work was categorized in the 1974 Census leads to a gross underestimate of women's participation in the work force. The Census reported only 5% of the work force are females, ignoring the unpaid labor, by women, in the processing of agricultural products. Much of the work that women presently do is categorized in various studies as "household maintenance work" and is not seen in the same light as the various agricultural activities of men which are considered to be more directly productive. The late President Ziaur Rahman, a strong supporter of women's participation in the work force, correctly observed, "Unless women are working, they cannot get respect and the status in society which they deserve." Top political attention such as this is crucial for increasing women's participation in the paid work force. Still, the perception of "work" in women's lives must be clarified if women are to receive credit for the many hours of unpaid work they are already contributing.

The low evaluation of women's work is a problem not only in Bangladesh, but also throughout the world. Mandl (1980) pointed out that because much of the work women perform is not paid, it is not included in market and employment surveys worldwide. Particularly in developing countries, most of the production, processing, storage, and preparation of food is carried out by women, and it has been estimated that such work may account for up to 50% of national productivity. This international experience as well as studies in Bangladesh lead to a conclusion that the contribution made by women in Bangladesh to the gross national product is clearly far beyond what is usually reported.

A discussion of women in Bangladesh cannot ignore the high fertility rates prevalent throughout the country. Hong (1980)

reported that the average Bangladeshi woman has at least 7.1 live births. This statistic does not include the pregnancies that end in abortions (natural or induced) or stillbirths. Furthermore, the Bangladesh Fertility Study (1978) found that rural women continue breast feeding for an average of 19.2 months. The considerable length of time in a woman's life during which she is either pregnant or nursing means that for much of her adult life, her physical resources available for physical labor are far more limited than those of men. This leads to the expectation that women are able to spend less time and energy in work than men, but in reality the reverse may be the case. In his study in 1974, Farouk found that the average workday for men lasts about 10 to 11 hours, while women work on the average 12 to 14 hours. The effect of this combination of numerous pregnancies, long periods of breast feeding, and long hours of work may partially explain the fact that after the age of one, women have a slightly shorter life expectancy than men in Bangladesh (1974 population Census). This is the reverse of many developed countries where women have a longer life expectancy than men.

Women and work

A closer look at the work women do and the way they use their time will illustrate the contribution women make, not only to their own households but also to the general economy. Work performed by women can be divided into three general categories: household maintenance work, productive but non-income generating work, and income generating work. The first category, household maintenance, includes such activities as meal preparation, washing and cleaning, child care, fetching water, collecting firewood, and maintenance and repair of the home. Barkat-E-Khuda (1980a) reported in his study of time use in a Bangladeshi village that women in the 15-54 age group spend an average of six hours per day in this type of activity, while men spend about 50 minutes per day on household maintenance activities. In another village study, Cain, Khanam and Nahar

(1979) found that women spend an average of five hours and 24 minutes, while men spend an average of one hour and 16 minutes per day in household maintenance activities.

Rural women in Bangladesh perform a number of activities which may not be directly income producing but which must be categorized as productive labor. The most important of these activities is post-harvest rice processing, an activity which is primarily seen as women's work rather than men's. These activities, which include threshing, beating, parboiling, drying, husking, winnowing, sieving and storing of the rice, have been described well by Huq (1979). Barkat-E-Khuda (1980a) found that women spend an average of 8.8 hours a week (one hour and 15 minutes per day) on rice processing, while Cain *et al.* (1979) reported an almost identical figure of one hour and 17 minutes per day. Some of the other activities described by Huq are various horticultural activities such as kitchen gardening, banana raising, and tending of various fruit and spice trees. In addition, women are heavily involved in work relating to food preservation and processing, such as making puffed or beaten rice, sweets, pickles, chutney, dried mangoes, *gur* and molasses, and so forth.

These and other activities such as raising poultry and livestock and cultivation of fish are difficult to categorize as either income or non-income producing. If a woman keeps a small kitchen garden and therefore does not need to purchase vegetables, she is saving the family from an expenditure, and her labor is thus income substitution. Furthermore, when there is a surplus, a woman may be able to sell some of her products and directly receive income. Rice processing is an activity which women perform without wages when the rice is that of the family farm, but this labor adds to the value of the agricultural output of the entire household. In addition, many rural women process rice in other households for wages, or purchase unprocessed rice and realize a profit when selling the processed rice later.

Given the demands on women's time by child rearing needs, household work, and the various activities associated with food

processing and preservation, it is surprising that any women have the time or energy for more than marginal income-producing labor.

Barkat-E-Khuda (1980b) studied the use of time in a village and observed the activities of men and women over a 14 hour period of the day. Of these in the 15-54 age group, men an average of 7.4 hours available for directly productive activities, while women have only 3.5 hours available. Interestingly, he also found that while men spend an average of four hours per day on personal care and needs, such as activities relating to personal hygiene, eating, resting and praying, women only spend three hours per day on these activities. A study by the Institute of Nutrition and Food Science (1978) found that in the agriculturally slack times of the year, women have almost six hours per day of spare time. This decreases to four hours during moderately busy times, and to three hours of spare time during the agriculturally busy times of the year. It should be noted, however, that the time of observation went from 5 a. m. until retiring for the night, so even five hours of spare time is not excessive given the total time frame of 15 to 16 hours. This study also found that the amount of spare time available varies with the amount of land owned, with landless having the most amount of spare time, and those women with the largest land holdings having the least amount of spare time. This relationship was also found in Barkat-E-Khuda's (1980a) study in which landless women work an average of 1.6 hours per day in directly productive activities, while women with land holdings over one acre work three hours per day in directly productive activities.

The normal demands on women's time, and the cultural constraints related to observing *purdah*, have created a situation in which very few women in Bangladesh actively participate in the wage labor market. Many of the income generating activities available to women in other developing countries, such as marketing and farming, would be difficult to participate in while

maintaining strict *purdah*. However, there are a number of ways in which women are able to earn wages without grossly violating the demands of *purdah*. Husking and processing rice is an activity which, even when done for wages, can be done within the confines of the household area or *bari*. Cain (1979) studied 310 women earning wages and found that 50% of the women earn wages through husking and processing rice. The other sources of wages reported for women are general housework, 20%; sewing, 4%; other food processing 2.6%; stripping jute, 5.2%; and various field work, 16.2%.

Data regarding rural women workers and the type of work they do for wages are scanty and incomplete. More is known about the type of women who seek wage labor than the range of activities in which they are engaged. During the 1976-1977 Food for Work season, Chen and Ghuznavi collected data on 303 women participating in World Food Programme sponsored earthmoving Food for Work projects. The specific findings of the Chen and Ghuznavi study are discussed in the chapters presenting the findings of this study, so that comparisons may be made between the 1977 findings and the 1981 findings. McCarthy, Sabbah and Akhter (1978) present an excellent summary of data regarding rural women workers collected in six different research projects. A total of 426 women were sampled in these six studies, though 303 of this total came from the Chen and Ghuznavi (1977) study. In the past, it was generally only divorced, widowed, or destitute women who were dependent on wages and had to leave their homesteads to support themselves and their families. This pattern is still somewhat prevalent. Of the 426 women in the six studies, 45% had once been married but were currently widowed, divorced or separated. However, 41% were married with husbands present in the household. Since virtually all of the women in these various studies were engaged in work which took them outside of the homestead, it is clear that the traditional patterns of *purdah* and confinement of married women to the household area are no longer being observed as strictly as in the past.

What are the forces which propel women from their traditional roles to the new roles of wage earner outside the home? Most writers seem to agree that increasing landlessness and the decrease in farm size are principal causes. As landholdings decrease in size, it is increasingly difficult to support the family needs with income from agricultural labor, and women are forced to supplement family income with outside wage earnings. Cain (1979) found that in those families which own more than half an acre of land, women work at income earning labor for only about one hour per day, while for women with family land ownership of less than half an acre income earning labor accounts for 2.4 hours per day. In McCarthy's (1978) summary of data sets, data on land holdings and economic condition were available for only 97 of the women. Of this number, only 10% of these wage earning women came from households with land holdings of more than one acre.

In their study of post-harvest activities, Begum and Greeley (1980) found that economic need, as it forces women to seek wage employment, is creating a divergence between the belief in the value of *purdah* and the actual practice. They also emphasized that the current changes are not women who formerly did not work currently working, but rather it is a change from homebased unpaid work to non-homebased, paid employment. As farm size decreases, the opportunity for homebased, non-paid labor (principally rice processing) decreases, and the female demand for wage employment increases as poverty increases. Therefore, they argued that the participation of women in wage labor is perhaps one of the best indicators of family indigence. A strategy for reaching the "poorest of the poor" in rural development programs might well be to concentrate on those families in which women are working for wages outside the home.

Implications of Women's Participation in the Paid Labor Market

The obvious result of the participation of women in the wage labor market is the increased economic wellbeing of the family. McCarthy (1980) reported findings relating to women working

for wages in the households of other villagers. Of these women, 21% were the only income earning member of their families. In families in which one male and one female were working, the wages of the female contributed 40% of the total family earnings.

A number of writers have commented on the interior position of Bangladeshi women in terms of social, legal, political and economic status (Alamgir, 1977, Mascarenhas, 1976; McCarthy, 1978). This is true not only in Bangladesh, but most, if not all, nations. Papanek (1979) suggested that women's social marginality is partly based on the fact that household work performed by women is viewed as marginal work. As they move to wage earning labor, their status in society may also increase. The pattern of family decision making may also be affected by income earning activities. Papanek (1979) stated that women may be able to gain independence and a stronger role in family decision making when they earn money independently and thus influence the use of family resources. Unfortunately, this may not always occur. Dixon (1978) described a research study in which it was found that female construction workers in India, in spite of earning almost as much as their husbands, were virtually powerless in matters such as daily expenditures, education of children, selection of jobs, and so forth. The findings of this study also relate to the previous discussion of the effects of pregnancy on working women. In this study, women had given birth to an average of five children although their average age was only 30. Most women worked until their eighth or ninth month of pregnancy, and one quarter worked until the day of delivery. The effect of this hard labor may be related to the death of 40% of the children born to these women.

An impact of women engaged in paid work may be a decrease in fertility. Alauddin (1980) stated that there is some evidence that employed women have slightly lower fertility rates than do non-employed women. This finding, based on the

Bangladesh Fertility Study, is consistent for both rural and urban women, and for women of all educational and economic classes. However, Choudhury (1977) reported that in Dhaka, employed women have a slightly higher fertility rate than do non-employed women. He suggested that women with large families are forced by economic necessity to seek employment. More studies will be necessary to confirm whether participation in the paid work force discourages women from having more children, or whether women with large families tend to seek employment in order to support their larger families, or whether both of these factors affect the relationship between employment and fertility.

Problems and Potentials of Employment for Women

There are a number of problems which must be considered in relation to the issue of women's involvement in the paid labor force. First is the issue of time and physical constraints. The various studies discussed demonstrate that rural women in Bangladesh work long hours, although generally they are not being paid for their labor. Traditional patterns of life, and the absence of labor saving devices for household work, result in an extremely long work day for women who not only perform traditional household tasks but also seek paid employment. In addition, the physical demands of pregnancy and lactation cannot be ignored when considering the time and energy resources of women. Increasing landlessness has resulted in a decrease in opportunity for non-paid agricultural work within the household, and many women do appear to have some spare time available for income generating activities. Moreover, even in families in which there is a male breadwinner, there are increasing economic pressures on women to seek paid employment.

McCarthy (1978) found that one of the major problems facing rural employed women is the seasonality of work. Since the current major source of paid work for rural women is work related to agriculture, women have long periods during non-harvest seasons when there are only extremely limited

opportunities for paid work. Barkat-E-Khuda (1980b) also found that women are underemployed during certain seasons. Another problem facing women is that their wages tend to be irregular and lower than the wages of men for similar work (McCarthy, 1978,1980).

A critical problem for rural women is the increasing mechanization of agricultural work, and thus the decline in opportunities for women to receive wages for agricultural work. Several writers (McCarthy, 1978, 1980 ; Cain *et al.*, 1979 ; Salahuddin, 1980) have pointed out that with the introduction of mechanized rice mills, the principal source of income for rural women is threatened. Salahuddin (1980) writes that an estimated 900 part-time employed women and 64 full time employed women may be displaced by one automatic rice mill. As mechanized rice mills proliferate, it is important to encourage the employment of women in these rice mills and to find alternate sources of paid employment for rural women.

What does the literature suggest is the potential for income generating activities for a woman ? Dixon (1980) suggests a number of activities for involvement of rural women in developing countries. Potential food processing activities including making dairy products, drying fruits and vegetables, smoking and drying fish, preparing confectionery, bakery goods, and so forth. Women in Bangladesh are already involved in some of these activities, but not on a wide or organized scale. Dixon suggests local manufacture of simple household items such as baskets, soap, pottery, furniture, and the manufacture and repair of agricultural implements. Handicrafts are another activity which could be expanded, but improvements are needed in the supply of raw materials, quality control, and marketing outlets. Dixon states that while many of these activities could be performed within the household, an increased emphasis on centralized workplaces in small towns and cities would be preferable. Centralized work places would allow women "to take advantage of improved technologies, opportunities for literacy and skills training, regulation

of wages and working conditions, and the potential interaction and collective decision-making" (p. 22). Dixon also urges greater involvement of women in rural construction projects such as road building, terracing, reforestation, and fisheries development ; sales and marketing ; service occupations and administrative, clerical and professional occupations. Although Dixon's suggestions are not tailored specifically to the situation of women in Bangladesh, many of her ideas are applicable here.

The late President Ziaur Rahman stated that he believed that women's involvement in income producing activities should be concentrated in six areas, namely : sericulture, handloom, fisheries, poultry and livestock raising, tailoring, and primary level school teaching. A number of agencies, both governmental and non-governmental, are working to develop these activities and are providing skills training for women.

Unfortunately, to date there has been very little empirical data collected on which to base a thorough discussion of these activities. UNICEF published a feasibility survey of income generating activities for women in Bangladesh (1977) which provides a description of the various organizations providing training and development projects for women. Many of the agencies involved have published evaluations and reports of their activities. The findings of these reports are based on either the observations of a team of consultants or data collected by the staff of these projects. While these reports provide some information regarding activities currently prevalent in Bangladesh, they do not provide information on the impact of these activities on the lives of women participants and their families. There have not been data collected on a large scale by independent researchers on the types of women who participate in these various programs, the factors that influence their participation, the problems they encounter, the contribution they make to their family's economic status, and so forth. It is not within the scope of this report to collect such data, but

this type of research is needed to understand fully the problems and potentials for income generating activities for women.

Summary

1. The employment of women in developing countries has increased as a result of a number of factors, including greater educational opportunities for women, the emancipation of women, and increasing economic pressures on the family. Women's employment outside the home may contribute to the general development of a nation and may also serve as an agent of socialization and modernization of the individual.
2. There is disparity between the traditional view of women in Bangladesh and the reality of life for rural women.
3. There is evidence that women have a longer work day than do men. Much of women's work is household maintenance and non-paid post-harvest agricultural work.
4. Increasing economic pressures caused by landlessness and the decrease in farm size are forcing many rural women to engage in income generating activities and to seek paid employment outside the confines of the household area.
5. The impact and implications of the paid employment of women are not well documented. Women's status in society may be affected, and fertility rates may decrease among employed women.
6. The seasonality of rural employment creates problems for women needing income. The increasing mechanization of agricultural work also affects the opportunities for paid employment for women.
7. More research is needed to document the types of women who seek paid employment and income generating activities, the factors that influence their employment, and the contribution they make to their families' economic well-being.

Appendix D

Observations and Analysis of Income Generating Projects for Women

Introduction

Given the limitation of the literature regarding women's income producing projects in Bangladesh, first-hand information was gathered regarding various organizations and programs which are trying to develop the income generating potential of women. The authors visited a total of 22 organizational headquarters in Dhaka, one organization in Savar (Gonoshasthaya Kendra) and had formal interviews with more than 40 individuals. Field trips were made to a Thana Training and Development Center in Kalizkoir, a Mothers' Club in Tan Sutrapur, and a CONCERN women's Food for Work project in Demra. On these field trips, numerous informal interviews were conducted with women engaged in various activities in these programs. The organizations and names of interviewees are listed in Appendix F.

A summary of the various income generating activities in which women are involved, and the assistance and support given by these organizations are presented. The factors influencing the success of women's income generating projects are also discussed based on observations and insights gained through these interviews and site visits.

Income Generating Activities for Women

Rice processing. There is a wide range of income generating activities sponsored or supported by the various organizations working with women. By far the most common source of

earnings for rural women is rice processing. In most cases, the income earning that women do by processing paddy is done without the support or assistance of governmental or non-governmental organizations. However some of the cooperatives set up through the help of various organizations, such as the Integrated Rural Development Programme (IRDP), the International Union for Child Welfare (IUCW), and the Mothers' Clubs of the Rural Social Service¹ provide loans to cooperative members who buy unprocessed paddy. After processing and selling the rice, usually through middlemen, women repay the loan and what is left from the sale is their profit.

Handicrafts. Handicrafts are the most common income generating activity which is done with the support of the various organizations, both governmental and voluntary. A number of different agencies are providing assistance to some stage of handicraft production, such as Aarong, CARITAS, CONCERN, the Jute Works, Jagaroti, IUCW, the Bangladesh Rural Advancement Committee (BRAC), Karika, and the National Women's Development Academy (NWDA). These agencies provide training in the production of handicrafts, assist in designing, supply raw materials, supervise quality control, and provide marketing outlets for the finished goods. (Not all of these agencies provide all of these services.) Various items made from jute are the most common, but others are handloom fabrics, cane and bamboo items, embroidery, doll making and so forth.

Agricultural projects. Agricultural income producing activities are also supported by a number of organizations. These supports include giving women training in kitchen gardening, poultry, goat and cattle raising, fisheries, bee keeping and the like. In addition to training, seeds, fertilizers, help in developing fisheries, and other activities. Among the agencies involved in agricultural support activities are CARE, IUCW, BRAC, Rangpur Dinajpur Rehabilitation Service (RDRS), and The Asia Foundation.

¹The organizations mentioned are examples and are not a comprehensive list of all organizations involved in these activities.

Cottage industries. Various cottage industries are another form of income generating activity for women assisted by organizations. This includes such activities as tailoring, machine knitting, rope making, fish net making, and wood and leather work. Agencies involved in cottage industries, such as NWDA, Bangladesh Small and Cottage Industries Corporation (BSCIC), and the Union Council Development Projects, usually concentrate on training and skill development. Gonoshasthaya Kendra has an innovative and unusual program offering training to women in furniture making and metal working, crafts which are usually the exclusive domain of male workers in Bangladesh. Although they have not yet trained large numbers of women in these skilled trades, Gonoshasthaya Kendra provides a dramatic and vivid example that rural Bangladeshi women can learn skills that most rural people assume are beyond the capacity of women.

Sericulture is emphasized by the government and some voluntary organizations. Such institutions as NWDA, BRAC, BSCIC and the Bangladesh Jatiyo Mohila Samabaya Samity (National Women's Co-operative Society) provide training and supplies to women interested in silk worm raising, spinning and weaving silk.

Food processing and preservation have not received much attention from organizations working with women. Making of pickles, grinding spices for sale, making puffed rice, and so forth are activities in which rural women participate, but generally without any formal support. Producing bakery goods such as breads, biscuits and small cakes has traditionally been a male occupation, but Gonoshasthaya Kendra, CONCERN and a few other organizations have begun training a few women in these skills. Making local cigarettes is another activity which provides income to many rural women.

Training in clerical and secretarial skills is provided by governmental agencies such as Polytechnic Institutes and Women's Career Training Institute, as well as by many small, private entrepreneurs. These types of training programs are primarily

for town women. Teacher training is also provided by the government, but this is not at present a potential source of income for rural women, given their limited access to prerequisite elementary education.

Cooperatives. Cooperatives are the principal method used by the various agencies to involve women in income producing activities. A number of different agencies, such as IRDP, BJMSS and IUCW encourage the formation of cooperatives. Many of the agencies working with women's cooperatives have two principal goals: involving women in income generating activities and introducing family planning practices. Assistance to cooperative members ranges from organizing the group, providing loans to the group or to individual members, skills training, supplying raw materials, marketing assistance and the like. Most cooperatives have minimum membership requirements ranging from 15 to 30 members, and, in addition, women must usually pay to join a cooperative. This payment may be an entrance fee or it may be a share required for membership. Based on figures given in the interviews, total membership in the various cooperatives may number over 100,000.

Most agencies working with cooperatives stress measurable goals, such as increased women's earnings, high loan repayment rates, and increased family planning acceptance rates. A few organizations, most notably BRAC and Nijera Kori, stress more intangible goals. These groups concentrate on the importance of raising women's consciousness, and the importance of organizing women to work with each other for common goals.

Factors Influencing the Success of Women's Income Generating Projects

Several important factors which influence the success of women's income generating projects are discussed in this section. These factors are the capital outlay required, availability and supply of raw materials, the adaptability of the work activity to other demands on a woman's time, the location of the work place,

the role of marketing, the degree of risk and the involvement of governmental and voluntary agencies.

Handicrafts. Despite the popularity of handicraft activities, the expansion of women's involvement in this area is controversial and subject to considerable criticism. There is an uncertain worldwide commercial market for handicrafts from Bangladesh. Quality control and design have not always been up to international standards. Encouraging women to make products which are exclusively for export and which do not contribute to local development, except through the profits generated, may be of questionable value to the general development of Bangladesh. It must be acknowledged, however, that the handicraft movement has been quite successful in helping large numbers of women earn income.

How do these factors influencing the success of income generating projects relate to handicrafts? Probably one of the most important factors is that capital outlay for expensive machinery is not necessary. Some of the handicrafts other than jute products require some tools, such as printing blocks for women doing block printing on fabrics, but generally handicrafts do not require an expensive outlay for machines or tools. Although there are occasional problems with the supply of raw materials, most handicraft activities rely on products for which raw materials are readily available.

The adaptability of handicraft production to the other demands on a woman's time is also a factor in its success. As previously discussed, women spend a considerable portion of their day doing various household maintenance tasks and non-paid agricultural work. A woman making handicrafts does not have to spend a regular block of time each day on handicrafts but can do this work at various times during the day when she is free of other responsibilities. It has been suggested that this may be a negative factor: if women spent a regular amount of time each day in handicraft production they would not only produce more but the quality would also improve. Nevertheless,

the flexibility of work hours is a factor which makes handicraft production well suited to the structure of a woman's workday.

The place of work must also be considered. Women involved in handicraft production generally work either in their own home, which does not violate cultural norms, or work in a central location, such as a Mothers' Club, along with other women. It has been suggested that women enjoy coming to a central workplace because they can socialize with other women and can also take advantage of other activities offered, such as literacy training, nutrition and health education, and family planning programs. This is consistent with Dixon's (1980) recommendation that central workplaces be provided for women where they can engage in an income producing activity and also take advantage of other programs.

Marketing is another important factor in the success of handicrafts. Currently, women producers are not responsible for the marketing of the items they have made. The various organizations working with women in handicrafts provide assistance in marketing, as in the handling of export of goods by the Jute Works, or in providing a sales center, such as Karika, Aarong and Shetuli. Women producing handicrafts at this time do not have to be concerned with direct marketing. In many developing countries, women are actively involved in marketing and sales, but in Bangladesh women are not usually involved with either buying or selling of goods in markets. Women handicraft producers generally do not sell their items on the local market, and the extent of their involvement in marketing is usually merely to transport their items to one of the organizations which then does the marketing for them. The lack of necessity for women to be involved in marketing may be a factor in the involvement of women in handicraft production.

The element of risk is another important factor in the success of the handicraft movement. Compared with other

income generating activities, there is a very low risk factor with handicrafts. The financial outlay for raw materials does not have to be large and is usually supported by the agencies involved, either directly or through loans. The waiting time between initial outlay of finances for raw materials and realization of a profit is relatively short. The major element of risk is that a woman's items may be rejected by quality control, but if this occurs, a producer is often able to sell them on the local market at a reduced price.

The involvement of governmental and voluntary agencies in handicrafts is another factor which has encouraged their success. The assistance provided by these organizations in the design of items, provision of skills training, supply of raw materials and/or loans for raw materials, marketing, and various other supports is considerable. Generally, only the cost of raw materials must be borne by the producers, and the difference between sales price and cost of raw materials is the woman's earnings. Some of the agencies take a small portion of this difference to help pay for the various services they provide. In most cases, the staff involved with organizing, training, designing, and other forms of assistance are supported by agencies. If women producers had to pay the costs of all the assistance they receive, it is very doubtful that any profit at all would be realized. Since the large scale, organized involvement of women in handicrafts in Bangladesh is a relatively new phenomenon, it is not unreasonable to find that handicraft production is not yet self-sufficient, but this is a factor which must be considered.

Agricultural activities. In many ways, the factors influencing the success of income generating projects produce a rather negative picture for agricultural income generating activities. The capital outlay required for many agricultural activities is considerable, especially from the point of view of a rural woman. To engage in vegetable gardening, a woman must either own land or have ready access to land. To become involved in animal husbandry or fishery projects requires capital outlay for

baby chicks, calves, fingerlings, and so forth. Access to raw materials and supplies may also affect the success of these types of projects. Seeds, fertilizers, and pesticides may be required for gardening projects. Land for grazing, fodder and vaccines are required in animal projects.

Women's lack of participation in marketing in Bangladesh is another negative factor. Women who grow vegetables, tend animals, or raise fish must in most cases depend on middlemen for marketing. In many cases, these middlemen exploit women, even if they are relatives. The element of risk is also important. Floods, droughts and pests may destroy agricultural products. Animals and fish may die of disease. The length of time between capital outlay and return on investment may also be too long, given the pressing economic needs of poor women. For example, there may be several years between purchasing a calf and selling a cow and thereby realizing a profit.

Cottage industries. There are a number of factors which may also negatively affect the involvement of women in cottage industries. Many cottage industries, such as tailoring knitting and leather work, require small machines or tools which not only must be purchased but also maintained. Sericulture requires machines for spinning and looms for weaving silk. Worms and either mulberry or castor leaves are needed for sericulture. Various food processing and preserving projects rely on access to raw food items, which may not always be available or affordable by rural women. Cottage industries such as tailoring, knitting and weaving require capital outlay for supplies such as fabric, yarn or thread, which may be prohibitively expensive or unavailable.

As with agricultural activities, women's lack of access to marketing is another critical problem. The items produced by women in cottage industries need to be sold, and the exploitation of women producers by middlemen may reduce a woman's earnings to the extent that the activity is not profitable.

On the positive side, most cottage industries do not require a full-time commitment on the part of women already overloaded with household work. The extent of women's involvement in these activities can vary throughout the year in relation to other demands on time. Most cottage industries, including sericulture and food processing and preservation can be done in small but centralized workplaces in villages or towns. The Mothers' Clubs and Thana Training and Development Centers are already serving this function in some locations.

Summary

1. There has been considerable organizational support of income generating handicraft projects for women. Other income producing activities such as vegetable gardening and animal husbandry have also received some agency support though not to the same extent as handicraft projects. Certain cottage industries have received some organizational support, others have received little if any.
2. Factors which influence the success of women's income generating projects are the capital outlay required, the availability and cost of raw materials, the adaptability of work activities to other time demands, the location of the workplaces the accessibility of markets, the element of risk and the level of agency support.

Appendix E

Glossary of Terms

- Ayah* Woman who takes care of children.
- Bari* Household compound.
- Bigha* Unit of land measurement ; one third of an acre.
- Chula* Earthen stove used for cooking.
- Dheki* Traditional tool used for husking rice.
- Gamcha* Handwoven piece of cloth used for a variety of purposes.
- Gur* Molasses.
- Katha* Embroidered quilt.
- Kodal* Spade used for digging earth.
- Lungi* Traditional men's garment in Bangladesh.
- Madrassah* Muslim religious school.
- Para* Neighborhood area. There are usually three or four *paras* in a village.
- Purdah* Literal meaning : curtain or veil. Used to describe the seclusion of women.
- Sari* Traditional women's garment in Bangladesh and Indian subcontinent.
- Sardarni* Female work gang leader.
- Seer* Unit of weight ; one *seer* equals 0.94 kilograms.
- Thana* Administrative unit of a district.
- Tukri* Basket used for carrying earth and other tasks.
- Wallah* Worker.

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Appendix F

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