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FAP-12

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Government of the People's Republic of Bangladesh

Flood Plan Coordination Organisation,
Ministry of Irrigation, Water Development and Flood Control

BANGLADESH FLOOD ACTION PLAN

FAP 12
FCD/I AGRICULTURAL STUDY

METHODOLOGY REPORT

2 APPENDICES

A : BN-374
A-472

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Hunting Technical Services Limited

in association with

Bangladesh Institute of Development Studies
Flood Hazard Research Centre
Hunting-Fishtech
Technoconsult International Limited

under assignment to
UNITED KINGDOM OVERSEAS DEVELOPMENT ADMINISTRATION

Sanyu Consultants Inc.

under assignment to
JAPAN INTERNATIONAL CO-OPERATION AGENCY

The present report is one of a series being produced by Flood Action Plan components 12, the FCD/I Agricultural Study and 13, the Operation and Maintenance Study.

The full series is expected to comprise the following reports:

FAP 12

Inception Report (joint with FAP 13)
Methodology Report (2 Volumes)
Rapid Rural Appraisals Overview

Project Impact Evaluation studies of:

* Chalan Beel Polder D
* Kurigram South
* Meghna Dhonagoda Irrigation Project
* Zilkar Haor
* Kolabashukhali Project

Rapid Rural Appraisal Studies of:

* Protappur Irrigation Project
* Nagor River Project
* Sonamukhi Bonmander Beel Drainage Project
* Improvement of Sukunia Beel
* Silimpur - Karatia Bridge cum Regulators
* Khatakhali Khal
  Halir Haor
* Kahua Muhuri Embankment
* Konapara Embankment
* Polder 17/2
* BRE Kamarjani Reach
* BRE Kazipur Reach

* Draft Final Report (2 Volumes)
* Final Report (2 Volumes)

FLOOD PLAN CO-ORDINATION ORGANIZATION
Book No.....
LIBRARY
PANEL OF EXPERTS

W A R. P. O.
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DHAKA

MFD-441
20-02

FAP 13

Methodology Report
Appraisal of Operation and Maintenance in FCD/I Projects (2 volumes)
* Draft Final Report
* Final Report

Note: * Report not yet available

VOLUME 2

APPENDICES

A Terms of Reference for FAP 12

B FCD/I Evaluations Carried out in Bangladesh

C FCD/I Projects Database

D Project Dossiers - Contents Outline

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APPENDIX A

TERMS OF REFERENCE

FOR FAP 12

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ACTION PLAN FOR FLOOD CONTROL
TERMS OF REFERENCE FOR FCD/I AGRICULTURAL STUDY

1. BACKGROUND

1.1 In 1987 & 1988 Bangladesh experienced two of the most severe floods on record. These floods created awareness both at home and abroad and called for finding a solution to such environmental disasters. Soon after the floods, various studies were conducted by different agencies, countries and Government of Bangladesh.

1.2 The World Bank drew on the findings and framed a flood Action Plan (FAP) with 26 components as the initial stage in the development of a long term comprehensive system of flood control and drainage works. Out of these 26 components, 15 are supporting activities. FCD/I Agricultural Study is one of these supporting activities and would involve a comprehensive evaluation of agricultural, economic, environmental and social impacts of existing projects.

1.3 Despite considerable experience gained in the planning, implementation and operation of FCD[1] and FCDI[2] projects over the past 25 years, there have been a few indepth evaluations of project performance. A review of FCD and FCDI projects is needed in order to learn from previous experience and to provide an input to the planning of the proposed system of embankments and compartments under the Action Plan.

1.4 The study will be financed by the British and Japanese Governments.

2. REGION

The study will take place in all the regions identified for planning purposes in the Action Plan.

3. SCOPE OF WORKS

3.1 Over the past 25 years, considerable experience has been gained in the planning, implementation and operation of FCD and FCDI projects. Such projects account for about half of the investment in the water sector (most of the remainder being in minor irrigation) and cover over 10 percent of the country. They are designed to increase both agricultural production and the intensity of cultivation through improvements in the water regime (i.e., changes in the depth, timing and duration of flooding). Despite the importance of the sector, there have been very few evaluations of completed projects and those that have been undertaken have not been very useful due to methodological and other shortcomings.

The proposed FCD/I Agricultural Study would be to undertake a comprehensive review of FCD and FCDI projects. The overall aim of the study would be to assess the effectiveness of investment in this sector; to learn from previous experience in the planning, design, implementation, operation and maintenance of projects; and to

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[1] Flood control and drainage

[2] Flood control, drainage and irrigation

provide an input to the planning of the proposed system of embankments and compartments under the Action Plan.

The objectives of the study would be to :

- assess the agricultural, economic, social and environmental impacts of FCD and FCDI projects and the extent to which technical and other project objectives have been achieved;

- identify constraints to effective project management and to recommend ways in which project design, operation and maintenance can be improved to increase the overall production;

- develop guidelines and criteria to be used in the planning, design, implementation, operation and maintenance and evaluation of projects under the Action Plan.

4. TERMS OF REFERENCE

4.1 The Study would be undertaken in three partly overlapping stages :

4.1.1 Stage 1 : Methodology, Project Selection, Training

Development of the methodology to be used in the evaluation of projects, selection of projects for evaluation, recruitment of specialists and training of field assistants.

4.1.2 Stage 2 : Rapid Project Evaluations

'Rapid Rural Appraisal' of 12 completed projects (including major FCD/I projects and medium and small scale FCD/I projects) by inter-disciplinary teams of professionals to undertake the overall assessment of performance, problems and potential of each project.

4.1.3 Stage 3 : Full Project Impact Evaluation

Detailed evaluations of the agricultural, socio-economic and environmental impacts of a further 6 completed projects using quantitative and qualitative data collected in field surveys in project areas (with present projects') and neighbouring unprotected areas (without projects').

4.2 The terms of reference for the three stages of the study are as follows :

4.2.1 Stage 1 : Methodology, Project Selection and Training

In stage 1, the consultant would :

(a) develop a methodology for the rapid evaluation of FCD/I projects. In doing so, the Consultant would take account of work undertaken by MPO and other organizations;

(b) develop a methodology for full project evaluations of FCD/I projects. In doing so, the Consultant would, inter-alia, review previous evaluations undertaken by BWDB, MPO, IFCDR (Institute of Flood Control and Drainage Research), BUET, BAU, BIDS, donors and independent researchers, relevant research institutions and earlier critiques of such studies;

(c) organize a workshop of specialists, including members of the Panel of Experts and those undertaking other Action Plan activities to discuss the methodologies;

(d) select the projects to be evaluated through Rapid Project Evaluations and full Project Impact Evaluations. The projects selected will be representative of the types of FCD/I projects undertaken in Bangladesh, including projects in the North-west and North-Central regions where the first regional studies will be carried out; and

(e) train field assistants in the techniques to be used in both Rapid Project Evaluations and Project Impact Evaluations.

4.2.2 Stage 2 : Rapid Project Evaluations

In stage 2 the Consultant would undertake Rapid Project Evaluations (RPE) of the 12 selected projects. This would be undertaken by an interdisciplinary team of professionals (comprising an agriculturist, irrigation and drainage engineer, fisheries specialist, environmental specialist, sociologist and economist plus a small team of field assistants).

In undertaking the Rapid Project Evaluations, an attempt would be made to make an overall, qualitative assessment of project impacts together with more accurate estimates of key variables. Inter-alia, the teams would attempt to:

- asses the impact of the project on cropping patterns by land type, yields and crop production ; on the production of culture and capture fisheries ; on rural industries and services, including transport; on other aspects of the environment, on on-farm and off-farm employment of men and women and on neighbouring areas;

- assess the impact of the project on income distribution and employment and to try to analyse the attitudes of different interest groups in the area to the project;

- assess the suitability and effectiveness of the design and construction of the engineering works associated with the project, including maintenance requirements, and to estimate the cost of the works carried out for use in the economic assessment;

- compare the impacts of the project with planned impacts and the actual costs of implementing, operating and maintaining the project to planned estimates;

- assess any problems in the effective operation and maintenance of the project (including details of social and any other conflicts), to identify ways in which

such problem could have been overcome at planning and design stages and to propose any remedial efforts (e.g, new work or operating procedures) that could increase project effectiveness. This would be done in close co-operation with staff from the O&M study (Action Plan Item No. 13);

- assess the extent of consultation between BWDB and the beneficiaries, elected representatives, and officials of other government agencies in the planning, design, implementation, operation and maintenance of the project and, if considered necessary, to suggest ways in which consultation could be enhanced in future;

- assess the extent to which project activities and assets have been targeted to benefit the rural poor (e.g., leases on borrow - pit canals and embankments to groups of poor men and woman ; use of labour contracting societies in undertaking works) and to suggest ways in which such targeting be undertaken in future;

- assess the impact of the project on livestock (draft power, meat and milk production, fodder), on the availability of fuel and organic matter , and on short and likely long term soil fertility;

- assess the impact of the project on human diet and nutrition; and

- assess the overall economic impact of the project including an approximate estimate of the IRR of the project.

4.2.3 Stage 3 Full Project Impact Evaluations

In stage 3 the Consultant would undertake full Project Impact Evaluations (PIE) of six projects in which accurate and quantified estimates of project impacts would be made. The project impact evaluations would take about 8 months. The project impact evaluations would address similar questions to those in the rapid project evaluations but would differ in that the aims would be to:

- make quantitative estimates of net project benefits through household sample surveys of farmers, agricultural labourers, those engaged in culture and capture fisheries, rural industry and service owners and workers, and others in the project area;

- compare the situation in the project area both with the conditions before the project (i.e. before and after comparison) and to that in similar areas outside (i.e.,'with' and 'without' project comparison) and to assess any impacts of the project on neighbouring areas;

- assess in more detail the various impacts of the project (e.g., on cropping patterns, fisheries) and the response of households in the area in order to identify ways in which positive project impacts can be maximized and negative impacts minimized;

- undertake land resources appraisals (including where necessary soil surveys and assessment of irrigation potential) in order to assess the physical constraints to and potential for increased agricultural production and crop diversification;

- estimate the social and environmental impacts of the project on the savings and investment behaviour of farmers , fishermen, rural industries and service owners and others through a comparative study of enterprises and households inside the project.

4.2.4 In both Rapid Project Evaluations & the Project Impact Evaluations great care would be taken to distinguish project and non-project impacts (i.e., change in project areas such as ground water and surface water development result from the project as opposed to those that would have occurred anyway). In each stage the consultant would:

- organize workshops of specialists, including members of the panel of experts and those undertaking other Action Plan activities, to discuss the results of the project impact evaluation and to draw lessons to use in the planning implementation, operation and maintenance projects under the Action Plan;

- produce reports summarizing the main findings of the project and summarizing the findings of the project impact evaluations.

4.2.5 Relationship to Other Studies

The team undertaking the study would work in close co-operation with the Flood Plan Co-ordination Organization, with the members of the panel of experts and with the teams carrying out the regional studies (Action Plan Items 2 to 6), the other socio-economic and environmental studies (item No. 13 to 17), the Compartmentalization Pilot Project (Item No. 20), the Flood Proofing Pilot Project (Item No. 23) and the special study on the methodologies for the economic analysis of FCD/I projects. Care would be taken to ensure that duplication of the different studies is minimized.

5. REPORTS

The following reports would be produced :

Inception Report	: Month - 1
Draft Report on stage-1	: Month - 2
Final Report on stage-1 including workshop output	: Month - 3
Draft Report on stage-2	: Month - 7
Final Report on stage-2 including workshop output	: Month - 8

Initial Report on stage-3 for discussion in workshop	: Month - 7
Draft Report on stage - 3	: Month -11
Final Report on stage - 3 including workshop output	: Month -12

6. STUDY DURATION AND SCHEDULE

The study would last for 12 months and would be divided into the following stages :

- Stage 1 :	Mobilization, Methodology, Project Selection, Training	Months 1 - 3
- Stage 2 :	Rapid Project Evaluations	Months 4 - 8
- Stage 3 :	Full Project Impact Evaluations	Months 4 -11
- Stage 4 :	Final Report Preparation/ Workshop.	Month -12

An activity schedule is shown in Figure 1.

7. STAFFING AND OTHER INPUT

The study would be undertaken by the British-Japanese Consultancy Team in close collaboration with national research institutes.

The study would require 281 person months of consultancy inputs divided into 45 person months of expatriate consultants and 236 person months of local consultants. The figures given below are indicative.

7.1 The British/Japanese Team would comprise: Person Months

- Team Leader/Agricultural Economist (U.K)	12
- Irrigation and Drainage Engineer (Japan)	12
- Agriculturist/Farming System Agronomist (Jap)	6
- Fisheries Specialist (U.K)	6
- Sociologist/Rural Institutions Specialist (U.K.)	9
Total:	45

The Team Leader of the expatriate staff would have responsibility for the overall management of the study. The Irrigation and Drainage Engineer would spend about half of his/her time on this study (No. 12) and half on study No. 13. (Operation and Maintenance Study). The Sociologist/Rural Institutions Specialist would spend about two thirds of his/her time on study No. 12 and one third on study No. 13. The fisheries specialist may be provided by study No. 17, and advice and assistance on the environment will be supplied by study No. 16.

7.2 The Bangladesh Team would comprise :

	Person Month
Project Co-ordinator (Counterpart to Team Leader).	12
Senior Specialists :	
- In Agriculture/Agronomy, Irrigation and drainage engineering, sociology Agricultural Economics, Soil Science, Nutrition, Environment, Fisheries & Livestock.	114
Junior Specialists	
- Junior Specialists in various disciplines for RPE, PIE and special studies	110

	Total : 236

Additional Staff :

	Person months
- Field Supervisors (6 for 10 months for Project Impact Evaluations)	60
- Field Assistants (24 for 8 months; 12 for 5 months; 2 for 10 months; at least for 12 of whom would be women).	272
- Data processing and Secretarial Staff (6 for 9 months and 2 for 12 months)	78
- Office Manager and Account (2 for 12 months).	24
- Assistant to Expatriate Team Leaders of study Nos. 12 & 13	12

	Total : 446

Job descriptions for the Foreign Consultants and Bangladeshi Senior Specialists are given in Appendix 2. Appendix 3 outlines how the various evaluation teams would be staffed and managed.

7.3 Other input

The following other inputs would be required :

- Vehicles : 3 x 4WD & 1 x Microbus for 12 months
  3 x Motorbike for 12 months
- Computer : 6 Micro Computer; 2 printer
- Photocopier : 1 Reducing Photocopier
- Office : 4,000 Sq. Ft. Office + Utilities
- Printers, stationery and funds for workshops.

APPENDIX B

FCD/I EVALUATIONS CARRIED OUT

IN BANGLADESH

APPENDIX B:

PUBLICATIONS RELATED TO EVALUATED PROJECTS

IN FAP 12 LIBRARY AND ELSEWHERE

NAME OF THE PROJECT	DISTRICT	STUDY NAME	AUTHOR	STUDY DATE	LIB REF	ELSE WHERE
ANGARALI HAOR	SUNAMGANJ	EIP PHASE I RECONNAISSANCE, VOL I	BUP	1988	85	
ANGARALI HAOR	SUNAMGANJ	EIP EVALUATION, FINAL ON ANGGEROLI HAOR	BUP	1988	60	
ANGARALI HAOR	SUNAMGANJ	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
ANGARALI HAOR	SUNAMGANJ	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY, PHASE 1 AND PHASE 2	BETS	1988	0	WB
BARAMANIKDI SP	FARIDPUR	POST-EVAL STUDY OF BARAMANIKDI SP	TECHNOCONSULT	1990	0	TECHNOCONSUL
BATKAZAL KHAl, RE-EXCAV.	PATUAKHALI	EVAL OF EIP FCI PROJECTS	M ALI AKBAR	1977	0	BWDB
BHEDRA BEEL PROJECT	ISWARDI	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
BHEDRA BEEL PROJECT	ISWARDI	EIP, FINAL REPORT ON BHEDRA BEEL PROJECT	BUP	1988	61	
BHEDRA BEEL PROJECT	ISHURDI	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY, PHASE 1 AND PHSE 2	BETS	1988	0	WB
BHEDRA BEEL PROJECT	ISWARDI	EID PHASE I RECONNAISSANCE VOL.II	BUP	1988	0	BUP
BHITABARI DAMOSH	NAWABGANJ	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
BHITABARI DAMOSH	NAWABGANJ	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0	WB
BHITABARI-DAMOSH	NAWABGANJ	EIP, FINAL REPORT ON BHITABARI-DAMOSH	BUP	1988	63	
BHITABARI-DAMOSH	NAWABGANJ	EIP PHASE I RECONNAISSANCE VOL. II	BUP	1988	0	
BHITABARI-DAMOSH FCD PROJ	NAWABGANJ	EVAL OF HISTORICAL WATER RES DEVT	MPO	1990	1	
BHOLA IRRIGATION PROJECT	BHOLA	ECONOMICS OF SURFACE WATER MANAGEMENT	SAJJAD ZOHIR	1991	89	
BHOLA ISLAND (S) RECL	BHOLA	EVAL STUDY OF SSSP VOL-2	BNC	1987	0	WB
BHOLA ISLAND (W) EMB	BHOLA	EVAL STUDY OF SSSP VOL-2	BNC	1987	0	WB
BHUTIAR BEEL	KHULNA	SOCIO-ECONOMIC STUDY OF BHUTIAR BEEL	BWDB	1983	0	BWDB
BRAHMAPUTRA RIGHT EMBANKT	RAJSHAHI	EVAL STUDY OF BRE UNDER DFC-I, FINAL REP	DU	1986	95	
CHAKAMAYA-PANCHAKURALIA	BARGUNA	IMPACT OF TEN EIP PROJECTS	M MOSLEHUDDIN	1984	0	WB
CHALAN BEEL POLDER D	RAJSHAHI	EVAL OF HISTORICAL WATER RESOURCE DEV'T	MPO	1990	1	
CHALAN BEEL POLDER-D	RAJSHAHI	EVAL REPORT ON CHALAN BEEL SUB-PROJECT	BETS	1989	0	
CHANDANA BARASIA PROJECT	FARIDPUR	EVAL OF EIP FCI PROJECTS	M ALI AKBAR	1977	0	BWDB
CHANDPUR IP	CHANDPUR	IMPCT OF FLD CTRL ON RURL DUET IN B'DESH	THOMPSON, P.	1989	0	PT
CHANDPUR IP	CHANDPUR	A SOCIO ECONOMIC EVAL OF THE CHANDPUR II	BUP	1982	0	PT
CHANDPUR IP	CHANDPUR	COMPREHENSIVE EVAL REPORT ON CIP	BWDB	1979	0	BWDB
CHANDPUR IP	CHANDPUR	IMPACT OF FCDI PROJECTS IN BANGLADESH	CIRDAP	1987	0	WB
CHAR FAIZUDDIN (POLD 58/3	BHOLA	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHASE 2	BETS	1988	0	WB
CHAR FAIZUDDIN(POLDER58/3	BHOLA	EIP,. PHASE 1 RECONNAISSANCE VOL.III	BUP	1988	0	BUP
CHAR FAIZUDDIN(POLDER58/3	BHOLA	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	

CHENCHURI BEEL	NARAIL	REPORT ON EVALUATION STUDIES OF DFC1	ENGG.SC LTD.	1986	90	
DAMRIR HAOR	SYLHET	EIP, PHASE I RECONNAISSANCE, VOL I	BUP	1988	85	
DAMRIR HAOR	SYLHET	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
DAMRIR HAOR	SYLHET	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0	WB
DHAKA-NGANJ-DEMRA IRR PRO	DHAKA	AGRO-ECON. EVAL. OF DND PROJECT(2ND ED)	ML RAHMAN	1984	0	BWDB
DHAKA-NGANJ-DEMRA IRR PRO	DHAKA	AG.ECO.EVAL OF DND PROJ (1ST ED)	ML RAHMAN	1973	0	BWDB
DHURUNG KHAL	?	EVAL STUDY OF SSSP VOL-2	BNC	1987	0	WB
GANGRAIL CLOSURE(POL 17/2	KHULNA	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
GANGRAIL CLOSURE(POL 17/2	KHULNA	EIP PHASE 1 REPORT, RECONNAISSANCE,VOL4	BUP	1988	64	
GANGRAIL CLOSURE(POL 17/2	KHULNA	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0	WB
GK PROJECT (PHASE 1)	KUSHTIA	EIP, PHASE 1 REPORT, RECONNAISSANCE VOL4	BUP	1988	64	
GK PROJECT (PHASE 1)	KUSTIA	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0	WB
GK PROJECT(PHASE 1)	KUSHTIA	EIP SYNTHESIS REPORT,PHASE 1 STUDY	BUP	1988	62	
HAIL HAOR	MOULAVIBZR	EVALUATION STUDY ON HAIL HAOR	BETS	1988	0	BWDB
HARIHAR RIVER EXCV.	?	EVAL STUDY OF SSSP VOL-2	BNC	1987	0	WB
HIZLA EMB. PROJECT	BARISAL	EVAL OF EIP FCI PROJECTS	M ALI AKBAR	1977	0	BWDB
JAMUNA KHAL	COMILLA	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
JAMUNA KHAL	COMILLA	EIP, PHASE I RECONNAISSANCE, VOL I	BUP	1988	85	
JAMUNA KHAL	COMILLA	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0	WB
KALAIYA-NEHALGANJ	PATUAKHALI	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
KALAIYA-NEHALGANJ	PATUAKHALI	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0	WB
KARNAFULI IRR PROJECT	CHITTAGONG	EVAL. STUDY ON KARNAFULI IP	SARM ASSOC.	1986	0	WB
KARNAFULI IRR PROJECT	CHITTAGONG	PROJECT PERFORMANCE AUDIT REPORT	WB	1986	0	WB
KARNAFULI IRRIG. PROJECT	CHITTAGONG	PROJECT COMPLETION REPORT	FAO	1985	0	WB
KARNAHAR BARABEEL EMB	RAJSHAHI	EVAL OF EIP FCI PROJECTS	M ALI AKBAR	1977	0	BWDB
KATA KHAL - DUBLAKURI	MYMENSINGH	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
KATA KHAL - DUBLAKURI	MYMENSINGH	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0	WB
KATA KHAL - DUBLAKURI	MYMENSINGH	EIP PHASE I RECONNAISSANCE	BUP	1988	0	BUP
KATAKHALI KHAL	JAMALPUR	SOCIO-ECONOMIC EVALUATION	DU	1980	0	BWDB
KOLABASHUKHALI	KHULNA	REPORT ON EVAL STUDIES DFC-1	ESL	1986	0	143
MANU RIVER PROJECT	MOULVI BZR	EVAL OF HISTORICAL WATER RESOURCE DEV'T	MPO	1990	1	
MASHAJAN-LAUHAJANG	TANGAIL	EIP, PHASE I RECONNAISSANCE, VOL 1	BUP	1988	85	
MASHAJAN-LAUHAJANG	TANGAIL	EIP EVALUATION, FINAL ON MASHAJAN-LAUH.	BUP	1988	57	
MASHAJAN-LAUHAJANG	TANGAIL	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
MASHAJAN-LAUHAJANG	TANGAIL	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0	WB
MEGHNA DHONOGODA	CHANDPUR	IMPACT OF FCDI PROJECTS IN BANGLADESH	CIRDAP	1987	0	WB
MONDAKINI KHAL IRRIG SUB	CHITTAGONG	EVAL, STUDIES OF BWDB SMALL SCALE DFC	BNC	1987	75	

MRIGI KHAL SUB-PROJECT	RAJBARI	EVAL, STUDIES OF BWDB SMALL SCALE DFC	BNC	1987	75
MUHURI IRR. PROJECT	CHITTAGONG	BANGLADESH: MUHURI IRRIG. PROJECT	FAO	1989	0 WB
MUHURI IRR. PROJECT	CHITTAGONG	BANGLADESH: MUHURI IRRIG. PROJECT	WB	1990	0 WB
MUHURI IRR. PROJECT	CHITTAGONG	PROJECT COMPLETION REPORT	BWDB	1986	0 WB
MUHURI IRRIG. PROJECT	CHITTAGONG	IMPACT OF FCDI PROJECTS IN BANGLADESH	CIRDAP	1987	0 WB
MUHURI IRRIGATION PROJECT	CHITTAGONG	EVAL OF HISTORICAL WATER RESOURCE DEV'T	MPO	1990	1
NURANIA KHAL		EVAL STUDY OF SSSP VOL-2	BNC	1987	0 WB
PATHAKHALI KONAI BEEL	TANGAIL	FIELD EVALUATION, PATHAKHALI-KONAI BEEL	MPO/HARZA	1985	65
POLDER 27/2	KHULNA	EIP, PHASE I, RECONNAISSANCE, VOL 4	BUP	1988	64
POLDER 27/2	KHULNA	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62
POLDER 27/2	KHULNA	EVAL OF EIP FCI PROJECTS	M ALI AKBAR	1977	0 BWDB
POLDER 27/2	KHULNA	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0 WB
POLDER 34/3	BAGERHAT	IMPACT OF TEN EIP PROJECTS	M MOSLEHUDDIN	1984	0 WB
POLDER 35/1 SUB-PROJECT	BAGERHAT	EVAL, STUDIES OF BWDB SMALL SCALE DFC	BNC	1987	75
POLDER 35/3	BAGERHAT	EIP, PHASE I, RECONNAISSANCE, VOL 4	BUP	1988	64
POLDER 35/3	BAGERHAT	EIP EVALUATION, FINAL REPORT ON 35/3	BUP	1988	58
POLDER 35/3	BAGERHAT	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62
POLDER 35/3	BAGERHAT	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHASE 2	BETS	1988	0 WB
POLDER 39/1	BARGUNA	SOCIO-ECON. STUDY OF PATUAKHALI BEEL	BWDB	1981	0
POLDER 42	PATUAKHALI	SOCIO-ECON. IMPACT - POLDER 42	BWDB	1966	0
POLDER 46	PATUAKHALI	SOCIO-ECONOMIC IMPACT OF POLDER 46	BWDB	1966	0
POLDER 47	PATUAKHALI	SOCIO-ECONOMIC IMPACT OF POLDER 47	BWDB	1966	0
POLDER 48 SUB-PROJECT	PATUAKHALI	EVAL, STUDIES OF BWDB SMALL SCALE DFC	BNC	1987	75
POLDER 55/1, CEP	GALACHIPA	EVAL OF HISTORICAL WATER DEV	MPO	1990	1
POLDER 65/A-3	CHITTAGONG	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62
POLDER 65/A-3	CHITTAGONG	EIP, FINAL REPORT ON POLDER 65/A-3	BUP	1988	59
POLDER 65/A-3	CHITTAGONG	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHASE 2	BETS	1988	0 WB
POLDER 65/A-3	COXS BAZAR	EIP PHASE I RECONNAISSANCE VOL.III	BUP	1988	0 BUP
POLDER 66/3	COXS BAZAR	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62
POLDER 66/3	COXS BAZAR	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHSE 2	BETS	1988	0 WB
POLDER 66/3	COXS BAZAR	EIP PHASE I RECONNAISSANCE VOL.III	BUP	199	0 BUP
RAKTADAHA-LOHACHURA	NAOGAON	EVAL OF HISTORICAL WATER RESOURCE DEV'T	MPO	1990	1
RAKTADAHA-LOHACHURA	NAOGAON	IMPACT OF TEN EIP PROJECTS	M MOSLEHUDDIN	1984	0 WB
ROACHALA KHAL, RE-EXCAV.	COMILLA	EVAL OF EIP FCI PROJECTS	M ALI AKBAR	1977	0 BWDB
SANIR HAOR SSUB-EMB.	SUNAMGANJ	POST-EVAL STUDY OF BSP UNDER SSFCDI PROJ	MPO	1990	1
SANIR HAOR SUB-EMB.	SUNAMGANJ	EVAL STUDY OF SSSP VOL-2	BNC	1987	0 WB
SATINADI	LALMONIRHA	IMPACT OF TEN EIP PROJECTS	M MOSLEH UDDIN	1984	0 WB
SATLA BAGDA	GOPALGANJ	EVALUATION STUDY OF DFC-II PROJECT	BETS	1989	91
SATLA BAGDA	GOPALGANJ	IMPACT OF TEN EIP PROJECTS	M MOSLEH UDDIN	1984	0 WB

SHANGAIR HAOR	SUNAMGANJ	IMPACT OF TEN EIP PROJECTS	M MOSLEH UDDIN	1984	0	WB
SINGUA RIVER, RE-EXCAV.	MYMENSINGH	EVAL OF EIP FCI PROJECTS	M ALI AKBAR	1977	0	BWDB
TEESTA RIGHT BANK EMBANKT	RANGPUR	EIP, PHASE I RECONNAISSANCE VOL.II	BUP	1988	92	
TEESTA RIGHT BANK EMBANKT	RANGPUR	FOURTH EVAL OF EIP PROJECTS, ENGINEERING STUDY PHASE 1 AND PHASE 2	BETS	1988	0	WB
TEESTA RIGHT EMBANKMENT	RANGPUR	EIP SYNTHESIS REPORT, PHASE I STUDY	BUP	1988	62	
TULSHIGANGA RIVER PROJECT	NAOGAON	POST-EVAL STUDY OF BSP UNDER SSFCDI PROJ	MPO	1990	1	

APPENDIX C

FCD/I PROJECTS DATA BASE

APPENDIX C

FCD/I Projects Database

The project selection discussed in Chapter 4 has been based on the following data base.

Sources : BWDB project lists, MPO lists and maps, EIP, UNDP technical assistance to BWDB.

Key to categories:

RGN = FAP Region

1 North-west
2 North-centre
3 South-west
4 South-centre
5 South-east
6 North-east

P/TYPE = Project Type

0 Excluded from selection (Cyclone zone coastal polders and town protection works)
1 Main FCD in South-centre and South-east
2 Semi-saline zone coastal polders
3 FCDI projects
4 Main river embankments
5 Main FCD in North-west
6 Main FCD in South-west
7 Small FCD projects
8 Submersible embankments
9 Flash flood protection

S/DATE = Starting date

C/DATE = Completion date

AGENCY = Funding agency

EVAL = Whether evaluation

0 No post-evaluation
1 Some post-evaluation (RRA or PIE)

MPO MAP# = current MPO map reference number

PROJECT TYPE 1

MAIN FCD IN SOUTH-CENTRE AND SOUTH-EAST

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
47	MADARIPUR BEEL ROUTE DR & FC	MADARIPUR	4	1	74	82	26721	733.45		0	0
72	STRENT.OF BANK OF GUMTI RIVER	COMILLA	5	1	56	63	46640	37.62		0	227
114	CONST. OF ROAD EMBK. SHAHEBER-	NOAKHALI	5	1	80	82	12437	31.16		0	263
115	CONST. OF CROSS-DAM EMBK.	NOAKHALI	5	1	80	82	5182	20.57		0	264
172	POLDER 59/1A	NOAKHALI	5	1	0	70	11053	138.76		0	0
173	POLDER 59/1B	NOAKHALI	5	1	0	70	15385	89.51		0	0
174	POLDER 59/2	LAKSHMIPUR	5	1	0	70	15466	-1.00		0	596
175	POLDER 60	FENI	5	1	0	70	7409	125.38		0	0
217	PALLIBERA KHAL SYSTEM	FARIDPUR	4	1	0	59	0	0.00		0	118
238	OLD DAKATIA &LITTLE FENI RIVER	COMILLA	5	1	0	69	0	0.00		0	229
240	NOAKHALI COMPREHENSIVE DRAIN.	NOAKHALI	5	1	60	77	98462	533.20		0	246
*** Total ***							238755				

PROJECT TYPE 2

SEMI-SALINE ZONE COASTAL POLDERS

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
61	POLDER 26	KHULNA	3	2	77	80	1215	38.87	EIP	0	108
71	POLDER 35/3	BAGERHAT	3	2	80	85	-1	442.87	EIP	1	320
118	POLDER 17/1	KHULNA	3	2	0	71	5020	120.34		0	483
119	POLDER 17/2	KHULNA	3	2	0	77	3441	118.06		0	0
120	POLDER 27/1	KHULNA	3	2	0	65	3765	103.60		0	328
121	POLDER 27/2	KHULNA	3	2	0	76	3765	83.23		1	0
122	POLDER 28/1	KHULNA	3	2	0	70	5628	44.19		0	481
123	POLDER 28/2	KHULNA	3	2	0	75	2591	115.30	EIP	0	0
124	POLDER 29	KHULNA	3	2	0	70	8219	160.43		0	0
125	POLDER 25	KHULNA	3	2	0	67	16275	174.70		0	327
126	POLDER 31	KHULNA	3	2	0	71	10364	173.65		0	486
127	POLDER 23	KHULNA	3	2	0	64	4923	56.39		0	336
128	POLDER 21	KHULNA	3	2	0	71	3279	37.61		0	330
129	POLDER 9	KHULNA	3	2	0	71	1093	20.87		0	0
130	POLDER 30	KHULNA	3	2	0	71	6845	122.56		0	329
131	POLDER 10/12	KHULNA	3	2	0	68	16236	112.20		0	0
132	POLDER 33	KHULNA	3	2	0	71	10364	125.47		0	485
133	POLDER 18/19	KHULNA	3	2	0	67	3279	61.45		0	0
134	POLDER 20	KHULNA	3	2	0	71	3279	75.88		0	0
135	POLDER 16	KHULNA	3	2	0	66	10445	113.90		0	335
136	POLDER 32	KHULNA	3	2	0	65	10405	131.05		0	484
137	POLDER 24	JESSORE	3	2	0	77	28340	96.46		0	478
138	POLDER 13-14/2	SATKHIRA	3	2	0	72	14575	184.08		0	333
139	POLDER 14/1	SATKHIRA	3	2	0	65	2551	78.90		0	0
140	POLDER 7/1	SATKHIRA	3	2	0	67	3887	107.21		0	493
141	POLDER 2	SATKHIRA	3	2	0	64	14372	162.87		0	0
142	POLDER 7/2	SATKHIRA	3	2	0	69	10891	98.07		0	507
143	POLDER 6-8	SATKHIRA	3	2	0	73	25870	155.01	EIP	0	334
144	POLDER 4	SATKHIRA	3	2	0	64	10324	148.39		0	491
145	POLDER 34/3	BAGERHAT	3	2	0	78	3239	105.63	EIP	0	109
146	POLDER 36/1	BAGERHAT	3	2	0	70	45344	376.20		0	475
147	POLDER 34/1	BAGERHAT	3	2	0	64	2429	45.18		0	0
148	POLDER 35/1	BAGERHAT	3	2	0	66	18461	537.19		0	476
178	POLDER 1	SATKHIRA	3	2	0	70	26429	542.90		0	490
179	POLDER 15	SATKHIRA	3	2	0	65	3320	65.64		0	492
180	POLDER 5	SATKHIRA	3	2	0	81	55704	680.71		0	332
215	KAPATAKSHI-SALIKA SYSTEM	SATKHIRA	3	2	79	81	2389	98.17		0	110
245	POLDER 3	SATKHIRA	3	2	0	66	18704	253.75		0	0
248	POLDER 22	KHULNA	3	2	0	0	0	0.00	0	0	0
*** Total ***							417259				

PROJECT TYPE 3

FCDI PROJECTS

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
25	DHAKA-NGANJ-DEMRA IRR. PROJECT	DHAKA	2	3	61	68	5370	276.88	IDA	1	220
27	REHAB. OF NGONJ-NARSINDI IRR.	NARAYANGANJ	2	3	81	83	1506	1331.69		0	399
29	FC & IRRI SCHEME OF DUBLAKURI	MYMENSINGH	2	3	82	84	4049	58.44	JAPAN	0	394
40	BARAMAINKDI DR. & IRR. PROJECT	FARIDPUR	4	3	83	86	3100	100.63	SSFCDI-IFAD	1	350
59	GANJES-KOBADAK PROJECT	KUSTIA	3	3	60	83	19028	8280.00	EIP	1	68
74	CHANDPUR IRR. PROJECT	CHANDPUR	5	3	62	80	53846	5419.34	IDA	1	272
75	MEGHNA DONAGODA PROJECT	CHANDPUR	5	3	78	88	17584	14302.93	ADB	0	417
94	RAHIMPUR KHAL	SYLHET	6	3	86	89	10121	104.73		0	364
97	MANU RIVER PROJECT	MOULAVI BAZAR	6	3	75	83	22672	6938.36	KUWAIT	1	201
100	MUHURI IRR. PROJECT	CHITTAGONG	5	3	77	88	40081	15481.75	IDA, CIDA, EEC	1	418
108	EXT. OF POLDER 56/58	BHOLA	4	3	86	89	1515	528.08	IDA, EIP	0	509
202	TISTA BARAGE PROJECT	NILPHAMARI	1	3	0	90	0	0.00		0	81
211	BARNAI RIVER SYSTEM	RAJSHAHI	1	3	82	90	48000	8161.00	IDA	0	309
213	MORICHAR DANRA SCHEME	NAWABGANJ	1	3	69	77	5570	0.00		0	45
227	KERANIGANJ IRRIGATION PROJECT	DHAKA	2	3	0	0	0	0.00		0	50
229	RUPGANJ NORTH WATER CONS. PROJ	NARAYANGANJ	2	3	84	90	0	3613.11		0	7
239	SONAICHARI KHAL SYSTEM	COMILLA	5	3	0	85	4000	0.00		0	571
*** Total ***							236442				

PROJECT TYPE 4

MAIN RIVER EMBANKMENTS

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
6	EMB. ON RIGHT BANK OF B.PURTRA	BOGRA	1	4	63	70	225911	789.54		0	297
21	BRAHMAPUTRA RT FLOOD EMB.	RANGPUR	1	4	74	85	72874	3957.72		0	0
22	SATI NADI SCHEME	RANGPUR	1	4	78	82	14170	252.66	EIP	0	9
23	TEESTA RT FLOOD EMBANKMENT	RANGPUR	1	4	78	82	38866	261.44	EIP	0	10
35	FARIDPUR-CHARBHADRASON EMBK.	FARIDPUR	4	4	61	78	14170	20.88		0	0
101	REPAIRING OF HIZLA EMBK.	BARISAL	4	4	75	79	5263	92.29	EIP	0	165
201	KURIGRAM NORTH	KURIGRAM	1	4	73	92	42000	15890.00	GOB	0	461
256	KURIGRAM SOUTH	KURIGRAM	1	4	73	81	65000	-1.00	GOB	0	461
*** Total ***							478254				

PROJECT TYPE 5

MAIN FCD IN NORTH-WEST

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
5	CHALAN BEEL POLDER D	RAJSHAHI	1	5	82	88	52860	6010.00	IDA	1	5
7	NAGORVALLEY PROJECT	NATORE	1	5	84	87	12950	831.40	EIP	0	310
16	RAKTADAHA LOHACHARA BEEL	NAOGAON	1	5	70	80	12000	198.70	EIP	1	50
24	SIRAJGANJ IRDP	SIRAJGANJ	1	5	77	85	62800	3644.93	ADB	0	4
205	SOMESHPUR BEEL SYSTEM	PABNA	1	5	74	78	2348	39.84	EIP	0	60
207	CHIKNAI GHECHUA BUND SYSTEM	PABNA	1	5	71	80	10000	90.21		0	63
210	PRATAPUR IRR. SCHEME	BOGRA	1	5	74	78	5234	43.97		0	12
212	TULSHIGANGA RIVER SYSTEM	NAOGAON	1	5	75	81	19840	657.03	EIP	1	25
243	BHEDRA BEEL DRAIN	NATORE	1	5	0	83	0	0.00	EIP	1	308
244	CHALAN BEEL POLDER A	NATORE	1	5	0	74	31080	0.00		0	0
254	CHALAN BEEL POLDER B	NATORE	1	5	0	74	33153	-1.00		0	0
255	CHALAN BEEL POLDER C	NATORE	1	5	0	74	42477	-1.00		0	0
257	NAGER RIVER	NATORE	1	5	83	-1	9500	-1.00	EIP	0	0
*** Total ***							294242				

PROJECT TYPE 6

MAIN FCD IN SOUTH-WEST

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
48	TARAIL PACHURIA PROJECT POLDER	GOPALGANJ	3	6	74	81	3239	243.23	ADB-EIP	0	139
49	SATLA BAGDA (MAIN PROJECT)	GOPALGANJ	3	6	72	89	22230	2876.13		0	13
50	SATLA BAGDA (DFC-11)	GOPALGANJ	3	6	72	89	0	3855.95	EIP-IDA	0	14
60	DR. SCHEME OF BHUTIAR BEEL	KHULNA	3	6	56	58	6073	0.00		0	111
62	BARAKPUR DIGHULIA	KHULNA	3	6	82	84	12875	233.73	EIP	0	321
63	BARNAL-SALIMURKOLA BASUKHALI	KHULNA	3	6	61	83	23156	907.44	IDA	0	112
65	SONAMUKI DR. SCHEME	JESSORE	3	6	70	78	9069	54.72		0	105
66	SINGLA NOBUGATI BEEL DR.SCHEME	JESSORE	3	6	79	84	6478	336.87	EIP	0	319
68	LOHAGORA FC. EMBK.	NORAIL	3	6	70	84	12955	172.31	EIP	0	316
69	CHANCHORI BEEL DR.	NORAIL	3	6	72	82	18630	1168.91		0	315
102	SATLA BAGDA POLDER-3	BARISAL	3	6	72	86	1600	75.99	EIP	0	0
216	ALFADANGA-BOALMARI SYSTEM	FARIDPUR	3	6	81	85	14250	0.00		0	115
250	CHANDBUA BARASIA RIVER	FARIDPUR	3	6	75	-1	4048	-1.00	EIP	0	0
*** Total ***							134603				

PROJECT TYPE 7

SMALL FCD PROJECTS

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
1	BAPMARA LOKENATH MAITRA PROJEC	RAJSHAHI	1	7	51	54	7490	2.19		0	54
2	DEV. OF KARNAHAR BARABILA	RAJSHAHI	1	7	63	77	6073	80.53	EIP	0	40
3	DEV. OF FALIAR BEEL	RAJSHAHI	1	7	78	82	2721	89.00	EIP	0	41
4	NAGARNADI SUB-PROJECT	RAJSHAHI	1	7	83	88	9312	446.00		0	3
8	BRIDGE OVER KUMARDAHA KHAL	NAWABGANJ	1	7	57	61	259	-1.00		0	44
9	BHATIA BEEL DRAINAGE PROJECT	NAWABGANJ	1	7	53	63	2332	5.34		0	43
10	BHITABARI BEEL-DAMOSH	NAWABGANJ	1	7	78	80	4049	70.60	EIP	1	46
11	YEARPUR DANORA PROJECT	NATORE	1	7	56	62	2591	2.15		0	51
12	RE-EXC. KUMAGARI BANIAKHOLA	NATORE	1	7	56	63	1215	4.71		0	47
13	CHAKALTANGARI/LAKSHMIPUR BEEL	NATORE	1	7	58	64	1088	2.12		0	48
14	FLOOD EMBANKMENT JOTEBAZAR	NAOGAON	1	7	70	77	4858	4.58		0	52
15	CONST. OF REGULATOR AT BISHA	NAOGAON	1	7	69	77	972	5.90		0	49
17	FC EMBKT. ALONG W-B PUNARBHABA	DINAJPUR	1	7	73	77	8900	16.40		0	5
18	KUMAR NAI EMB. PROJECT	GAIBANDHA	1	7	0	61	-1	2.56		0	0
20	SONAIL EMBANKMENT	GAIBANDHA	1	7	86	88	4600	222.24	EIP	0	302
26	RE-EXCA. OF DARDARIA KHAL	DHAKA	2	7	62	79	6219	39.35		0	224
28	CONST. OF CHARMARA SLUICE	MYMENSINGH	2	7	57	59	567	0.26		0	211
31	GAZARIA BEEL SCHEME	KISHOREGANJ	6	7	81	85	2950	130.45	EIP	0	393
32	RE. EXCAV. OF CHATRA NADI	RAJBARI	4	7	51	56	2160	3.21		0	132
33	CONST. OF LOCK-REGU.OVER SALNA	RAJBARI	4	7	56	65	1620	2.22		0	134
34	JANGAL BEEL DRAINAGE	RAJBARI	4	7	80	83	468	42.38		0	128
37	IMPROVEMENT OF SAKUNIA BEEL	FARIDPUR	4	7	81	83	2850	121.12		0	346
38	DR. OF CHATLER BEEL	FARIDPUR	4	7	83	86	3213	3.77		0	347
39	DHULDI BEEL	FARIDPUR	4	7	85	89	2346	271.91		0	349
42	NAOTANA KHAL	NETROKONA	6	7	85	89	2146	106.49	DUTCH - EIP	0	396
43	PATHAKHALI KONAI BEEL SCHEME	TANGAIL	2	7	77	82	1377	39.66	EIP	1	203
44	SELIMPUR-KARATIA BRIDGE-REGU.	TANGAIL	2	7	82	83	4300	23.84		0	210
45	MASAJAN-LOHAJAN	TANGAIL	2	7	82	86	2024	147.71	EIP	1	382
51	KALKINI (NORTH)	MADARIPUR	4	7	84	89	3077	281.11	IFAD-EIP	0	15
52	CONST. OF REG. JANAKIPUR KHAL	SHERPUR	6	7	79	82	777	37.47		0	205
55	KATAKHALI KHAL	JAMALPUR	2	7	81	83	2227	95.13	EIP	2	207
57	DR. SCHEME OF RATANPUR	KUSTIA	3	7	56	58	405	0.57		0	0
58	MOBARAK BANDH	KUSTIA	3	7	71	72	1036	4.36		0	0
64	GANGRAIL CLOSURE	KHULNA	3	7	81	83	3239	100.02	EIP	1	113
70	DR. OF SOME BEEL IN TALA	SATKHIRA	3	7	78	80	6478	54.34		0	97
91	DOMRIR HAOR	SYLHET	6	7	82	86	7285	163.48	EIP	0	357
203	DIKSHI BEEL SYSTEM	PABNA	1	7	0	64	0	0.00		0	56
204	NIMAICHARA & OTHER BEEL SYSTEM	PABNA	1	7	0	62	0	0.00		0	58
206	KINOO SARKER'S JOLA REGULATOR	PABNA	1	7	0	61	0	0.00		0	62
208	SACHIA MITAKUR KHAL SYSTEM	BAKERGANJ	4	7	0	62	0	0.00		0	160
209	PEKTI NADI SCHEME	DINAJPUR	1	7	0	62	0	0.00		0	468
214	MADHUMATI-NABAGANGA SYSTEM	MAGURA	1	7	85	91	3000	539.39		0	61
218	PARULIA CHARBATPARA F.C.DR SCH	FARIDPUR	4	7	81	83	0	48.89		0	114
219	BHATIAPARA REGULATOR AND BUNDH	FARIDPUR	4	7	0	69	0	0.00		0	120
221	ROUHA BAKCHURI & OTHER BEELS	MYMENSINGH	2	7	0	82	0	0.00	EIP	0	206
222	CHARAN AND LAXSHMIBASA BEEL	TANGAIL	2	7	81	84	1215	73.82		0	384
223	ALIAR BEEL SCHEME	TANGAIL	2	7	83	85	4452	128.00	EIP	0	385
225	BALUSHAIL EMBANKMENT	NARSINGHDI	2	7	73	88	3499	686.92	EIP	0	397
226	KAKON NADI SCHEME	NARSINGHDI	2	7	77	86	121	369.30		0	398
228	SRINAGAR MAWA BHAGYAKUL SYSTEM	DHAKA	2	7	0	0	0	0.00		0	542
246	LAKHYA-OLD BRAHMAPUTRA	DHAKA	2	7	80	84	-1	-1.00		0	400
249	HAMODOR BEEL	JESSORE	3	7	83	-1	-1	-1.00	EIP	0	0
251	KATAKHAL DUBLAKURI KHAL	MYMENSINGH	2	7	82	-1	-1	-1.00	EIP	1	0
252	BORDAL KHAL	KISHOREGANJ	6	7	79	0	-1	-1.00	EIP	0	0
253	GHAGUTIA	FARIDPUR	3	7	77	-1	-1	-1.00	EIP	0	0
258	SOWRA BEEL	BOGRA	1	7	83	0	3000	0.00	EIP	0	0

*** Total ***

128505

PROJECT TYPE 8

SUBMERSIBLE EMBANKMENTS

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
41	CONST. OF SUB-MERGED WEIR	NETROKONA	6	8	72	78	2227	36.44	IFAD & IDA	0	215
53	BORO MOHALIA HAOR JAMALGONJ	SUNAMGANJ	6	8	80	82	1417	19.00	WFP	0	188
54	PROTECT BORO CHANDRA SUNAR KHL	SHERPUR	6	8	81	82	3239	18.83		0	0
76	EMBK.ALONG HARJOR BHANGA BEEL	HOBIGONJ	6	8	54	55	2085	1.57	GOB	0	194
77	EMBK.ALONG SUTKI RIVER	HOBIGONJ	6	8	56	59	12146	21.13	GOB	0	195
78	PROT. BORO DHANKUNIA HAOR	SUNAMGONJ	6	8	63	78	1619	10.57	GOB	0	181
79	PROTEC.OF BORO HALIR HAOR	SUNAMGONJ	6	8	71	78	6721	49.26	IDA	0	182
80	PROTEC.OF BORO PAGONER HAOR	SUNAMGONJ	6	8	76	78	21672	17.98	GOB	0	183
81	PROTEC.OF BORO KOROHAR HAOR	SUNAMGONJ	6	8	62	66	4453	28.77	GOB	0	184
82	PROTEC.OF BORO CHAPTIR HAOR	SUNAMGONJ	6	8	78	79	3239	34.99	GOB	0	191
83	PROTEC.OF BORO KALNAR HAOR	SUNAMGONJ	6	8	78	79	4049	33.88	GOB/IDA	0	192
85	PROTEC. OF BORO JOYDHONA HAOR	SUNAMGONJ	6	8	81	82	1215	-1.00	WFP	0	189
86	SANGHAIR HAOR SCHEME	SUNAMGONJ	6	8	80	82	4858	93.34	EIP	0	356
88	ANGAR ALI HAOR	SUNAMGONJ	6	8	81	83	2630	102.74	EIP	1	358
89	SARIGOYAN SCHEME	SYLHET	6	8	72	80	5385	288.50	GOB	0	177
90	IMPR. KUSIYARA BARDAL BAYAN	SYLHET	6	8	70	81	8421	34.29	GOB/FFW	0	178
92	ZILKAR HAOR	SYLHET	6	8	83	88	4251	498.00	EIP	0	376
93	PATHARCHURI HAOR	SYLHET	6	8	83	88	4656	378.90	EIP	0	375
96	HAIL HAOR	MOULAVI BAZAR	6	8	81	89	24372	629.70		1	6
224	HAIJDA EMBANKMENT	NETROKONA	6	8	-1	90	8000	791.00	ADB	0	39
233	SHANIR HAOR SYSTEM	SUNAMGANJ	6	8	80	84	6000	0.00	GOB/IDA	1	186
234	MATIAN HAOR SYSTEM	SUNAMGANJ	6	8	76	85	6213	0.00	IDA	0	187
236	CHANDRA SUNARTHAL HAOR SYSTEM	SUNAMGANJ	6	8	0	0	3239	18.83		0	190
237	NALUAR HAOR SYSTEM	HABIGANJ	6	8	83	0	10000	0.00	WFP	0	374
*** Total ***							152107				

PROJECT TYPE 9

FLASH FLOOD PROTECTION

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
73	IMPR. OF MARGINAL DYKE KANKRI	COMILLA	5	9	57	77	4146	42.32		0	231
95	LEFT FC. EMBK. - MONU RIVER	MOULAVI BAZAR	6	9	82	86	16032	444.70		0	378
112	CONST. OF EMBK. OF SOLONIA RIV	FENI	5	9	81	82	1377	9.76		0	260
113	CONST. OF EMBK. OF KAHUA-MUHUR	FENI	5	9	81	82	7692	51.40		0	261
220	KONAPARA EMBANKMENT	MYMENSINGH	6	9	80	83	2632	85.76	EIP	0	217
232	KHOWAI RIVER SYSTEM	HOBIGANJ	6	9	70	94	1555	17180.64		0	362
241	UPPER MANU RIVER SYSTEM	MOULVIBAZAR	6	9	0	0	0	0.00		0	380
242	MUMAIPUR KHAL BAJIDPUR	KISHOREGANJ	6	9	0	0	0	0.00		0	391
*** Total ***							33434				

PROJECT TYPE 0

PROJECTS EXCLUDED FROM SELECTION

(CYCLONE ZONE COASTAL POLDERS AND TOWN PROTECTION WORKS)

SL#	NAME OF THE PROJECT	DISTRICT	RGN	P/TYPE	S/DATE	C/DATE	AREA (HA.)	COST (LAC.TK)	AGENCY	EVAL	MPO MAP#
19	TOWN PROTECTION OF GAIBANDHA	GAIBANDHA	1	0	56	63	9717	3.59		0	17
36	FARIDPUR TOWN PROTECTION EMB.	FARIDPUR	4	0	70	77	1360	26.71		0	117
103	POLDER 58/3 CHAR FAIZUDDIN	BHOLA	4	0	80	82	1336	253.86	EIP	0	174
104	CONSTRUCTION OF APPARTENANT ST	BHOLA	4	0	83	84	8097	173.00	IDA	0	175
105	CONST.OF EMBK. FROM BAZIPUR	BHOLA	4	0	82	83	2429	62.70		0	0
106	EXT. OF PATHARKHALI KONAI BEEL	BHOLA	4	0	81	83	1822	81.26	DUTCH	1	0
107	BHOLA NORTH-EAST EMBK.	BHOLA	4	0	80	84	8704	399.65	EIP	0	354
109	BIGHAINAD FLOOD & SALANITY CTR	PATUAKHALI	4	0	84	88	4858	508.60	IDA, EIP	0	353
110	POLDER 43/2 (C)	PATUAKHALI	4	0	83	86	2146	400.00		0	0
111	SURJAMANI KHAL	PATUAKHALI	4	0	87	89	1802	198.54	DUTCH	0	0
149	POLDER 55/1	PATUAKHALI	4	0	0	76	8704	278.80		1	527
150	POLDER 54	PATUAKHALI	4	0	0	77	9352	191.59		0	514
151	POLDER 47/1	PATUAKHALI	4	0	0	65	2065	62.00		0	529
152	POLDER 47/2	PATUAKHALI	4	0	0	65	850	30.56		0	0
153	POLDER 47/3	PATUAKHALI	4	0	0	65	1660	41.83		0	513
154	POLDER 47/5	PATUAKHALI	4	0	0	65	2429	84.95		0	515
155	POLDER 45	PATUAKHALI	4	0	0	66	4089	80.86		0	0
156	POLDER 46	PATUAKHALI	4	0	0	65	4696	119.42		0	528
157	POLDER 48	PATUAKHALI	4	0	0	66	5385	134.14		0	512
158	POLDER 47/4	PATUAKHALI	4	0	0	65	5789	134.14		0	530
159	POLDER 43/1	PATUAKHALI	4	0	0	79	28421	169.07		0	516
160	POLDER 44	PATUAKHALI	4	0	0	77	17530	243.21		0	523
161	POLDER 41/1	BARGUNA	4	0	0	66	4049	59.70		0	517
162	POLDER 41/2	BARGUNA	4	0	0	65	3644	134.49		0	518
163	POLDER 41/3	BARGUNA	4	0	0	65	1053	20.39		0	519
164	POLDER 41/4	BARGUNA	4	0	0	65	1741	13.46		0	0
165	POLDER 41/5	BARGUNA	4	0	0	65	2105	33.94		0	521
166	POLDER 42	BARGUNA	4	0	0	65	2794	49.46		0	0
167	POLDER 40/1	BARGUNA	4	0	0	65	2105	81.77		0	0
168	POLDER 40/2	BARGUNA	4	0	0	65	2834	114.97		0	0
169	POLDER 39/1 A	BARGUNA	4	0	0	78	24291	328.14		0	71
171	POLDER 56/57	BHOLA	4	0	0	78	88259	1135.58		0	19
176	POLDER 73/1 (HATIYA) (A&B)	NOAKHALI	5	0	0	70	4049	603.42		0	0
177	POLDER 73/2 (HATIYA)	NOAKHALI	5	0	0	70	9919	76.79		0	0
247	POLDER 39/2	BARISAL	4	0	0	0	2915	-1.00		0	0
*** Total ***							282999				

APPENDIX D

PROJECT DOSSIERS -

CONTENTS OUTLINE

APPENDIX D

PROJECT DOSSIER

PART - 1

PROJECT BRIEF

A. Project Name

B. Location

District(s) :

Upazila(s) :

Water Board Circle and FAP Region :

C. Project objective(s)

D. Project Description-General

(i) Type of project :

(ii) Implementation by BWDB BWDB/FFW BWDB/EIP

(iii) Area benefited :

(iv) Percentage distribution of area by upazila :

(v) Starting year :

(vi) Completion year :

(vii) Major repair/rehabilitation year :

(viii) Effect of recent floods: 1987 :
1988 :

E. Project Description-Structure

(i) Length of embankment/polder :

(ii) No. of regulators/sluices :

(iii) Length of major irrigation channels :

(iv) Length of feeder channels :

(v) No. of low-lift pumps :

(vi) No. of STW :

(vii) No. of DTW :

F. Project Description-Financial

(i) Cost of initial construction : Tk. lakh

(ii) Cost of major repair/rehab. by year : Tk. lakh in

(iii) Funded by :

Initial investment :

Major repair/rehab. :

G. Existence of

Feasibility report : by

Project completion report : by

Benchmark report : by

Evaluation : RRA by
PIE by

H. Initial and later estimates of

	Initial (yr.)	Later (yr.)
B/C		
IRR		
N/K		

PROJECT DOSSIER

PART - 2

Project Area: Location, Coverage, Characteristics

1. Location (append project map)

District(s)

Upazila(s)

Water Board Circle:

FAP Region:

SOURCE :

2. Coverage

(i) Mouzas covered by level of pre-project flooding:

	No. of Mouzas	Total Area (ha.)	Total Popn.(no.)
No flooding/very shallow flooding (<1-3')			
Shallow flooding (1-3')			
Medium flooding (3'-6')			
Deep flooding (6' +)			

*Append names of mouzas by depth of flooding

SOURCE :

(ii) Mouzas adjacent to project by level of pre-project flooding

	No. of Mouzas	Total area (ha.)	Total popn.(no.)
No flooding/very shallow flooding (< 1')			
Shallow flooding (<3')			
Medium flooding (3-6')			
Deep flooding (6' +)			

*Append list of mouzas by depth of flooding

SOURCE :

3. Physical features

(i) Contour map of area (append)

(ii) Area-elevation curve (append)

(iii) Water bodies

Rivers: No. :

Length (km.) :

Beels : No. :

Area (ha.) :

Ponds : No. :

Area (ha.) :

SOURCE :

(iv) Soil, inundation and climatic information :

Soil type	Area	Ph	Salinity (e.c.)	Natural fertility
Calcareous				
Non-calcareous				
Others				
SOURCE				

Inundation type

Flash flood

Gradual flood

Drainage congestion

Over topping

SOURCE

Climate

Average oT

Summary (April-June) oT (max)

Winter (Oct-Dec.) oT (min.)

Mean annual rainfall (mm)

SOURCE :

(v) Major hydrological events and flood records

Event	Year	Area affected
Flood		
Drought		
Heavy Rain		

SOURCE:

Append any result of hydrological modelling based on the general area (or clearest area) including return period of normal flood and max. flood.

4. Agricultural characteristics as in 1977 and 1983/84

Characteristics	1977	1983/84
i) Land utilization		
% area cropped		
% area fallow		
% area not available		

SOURCE:

ii) Average area owned (among farmers)

iii) % area tenanted:

Share-cropped

Fixed rented

SOURCE :

iv) Cropping pattern: (acres)

T. aman, HYV

Local

B. aman

Aus - HYV

Local

Boro - HYV

Local

Other Rice - HYV

Local

non-rice

Pulses

Others (specify)

SOURCE :

v) Livestock (no.)

Cattle heads

Buffalo heads

Sheep and goats

Chicken and ducks

SOURCE :

vi) Fisheries

No. of full time fishermen

No. of part time fishermen

SOURCE :

PROJECT DOSSIER

PART - 3

Project Description - General

1. Project objective(s)

(Use the pp but if there are differences among various documents in the description of project objectives, please note that)

2. Type of project (tick)

Mainly FC with D

Mainly D with FC

FCD

Mainly FC and/or D with I

3. Project history

PP approved	in
Feasibility completed	in
Detailed design completed	in
Work started	in
Work completed	in
PCR	in
Major rehabilitation	in

SOURCE

4. (i) Area benefited (ha.)

	FC	D	I
Planned :			
Actual (mention year:			
SOURCE			

(ii) Area dis-benefited (ha.)

Type of disbenefit	Project disbenefit	Adjacent area
Land erosion		
Sand deposition		
W. hyacinth infestation		
Drainage congestion		
Salinity increase		
Others (specify)		
SOURCE :		

5. Impact of 1987 or 1988 flood inside project area

Type of impact	1987	1988
Breach on enbankment		
No. (natural)		
No. (public cut)		
No. (Over topping)		
Land erosion (ha.)		
Area flooded (ha.)		
Sand deposition (ha.)		
Damage to other structures (no.)		
Partial		
Total		

PART 4

Project Description - Engineering and Structural

1. Structures

Type of structure	Construction/ repair-rehab.	Year 1	2	3	4	5	6	Total
Embankment/ polder (km)								
Pump station (no.)								
Regulator/ sluices (no.)								
Weir (no.)								
Main drainage canals (km)								
Minor drainage canals (km)								
Feeder irrigation canals (km)								
Low-lift pumps (No.)								
STW	(No.)							
DTW	(No.)							

2. Engineering details of structures (as built)

(i) Embankment

Top width

Side slopes C/S: R/S:

Berm width

Set back distance
FB

ii) Regulators

No. of vents

Sizes

Type of gate

Apron U/S: D/S:

SOURCE:

iii) Weir Size

iv) Pump station

No. of pumps

Capacity

Type

SOURCE

v) Channels/Canals

	B/W	S/S
Main canal		
Minor canal		
Main channel		
Minor channel		

SOURCE :

vi) Other structures (sizes)

vii) Append map with the locations of various structures.

viii) Append as-built drawings

PART 5

Project Description - Financial

1. Time structure of cost by item of cost

Type of cost	Year 1	2	3	4	5	Total actual	Total planned
Embankment							
Regulator/sluices							
All other structures							
Adminisratration project							
" H.O.							
Equipments (incl. vehicles)							
O & M							

2. Financing of project

Fund for	Donor	GOB
Initial investment :		
Major repair/rehab.		

PART 6

Operation and maintenance

1. Operation and maintenance feasibility
   (date)

(i) Intended staff for operation (no)

(ii) Intended budget for operation (Tk)

(iii) Intended maintenance budget (Tk)
append any plan for

structure

embankment

SOURCE :

(iv) How management of (organisation name)

Project to be organised
(append organisational structure e.g coordination committees if any)

PART 7

Project Impact

1. Sources of information

(i) Existence of by

PP in

Feasibility report : by

in

Project completion report : by

in

Benchmark report : by

in

Evaluation report : RRA by

in

PIE by

in

SOURCE :

(ii) type of available information (Tick):

Type	Benchmark	Evaluation
Demographic		
Occupational distribution of households		

Agriculture

Farm size

Tenure

Crop damage

Crop calender

Cropping pattern

Cropping intensity
yield

Cost and returns

Adoption of HYV

Adoption of irrigation

Adoption of fertiliser

Income

SOURCE :

Rural Industry/services

Cost and returns

Income

SOURCE :

Livestock

Herd size

Draught power

Feed

Income

SOURCE :

Fisheries

No of f.t. fishermen

No of p.t. fishermen

Fish catch - open

Income - Cultured

SOURCE :

Environmental

Land erosion

Siltation

Pest infestation

Change in plant species

Soil characteristics

Acidity

Alkalinity

Salinity

S. Water quality

G. Water quality
Hardness

SOURCE :

Nutritional

Food consumption

Age/Sex differences

Calorie consumption

child nutrition

SOURCE :

Social/institutional

Water use groups

KSS/BSS/MBSS

Landless (NGO)groups

Fishermen Groups

SOURCE :

3. Aggregate project benefits

B/C

NPV

N/K

IRR

SOURCE :

4. Major impacts between year _____and year_____

Change in cropping intensity :

Change in cropping pattern :

Crop	%area	%area
Livestock (no.)		
Cattle heads		
Buffalo heads		
Sheep and goats		
Chicken and ducks		

SOURCE :

Change in yield :

Local rice

HYV rice

B. aman

Local boro

Rice

Non-rice

Pulses

:

:

Percentage hh without livestock

Percentage landless :

Change in agri. land price

-irrigated within

-non-irrigated within

-irrigated outside

-non-irrigated outside

Change in real income/capita

Change in % poor.

SOURCE :

APPENDIX E

RRA CHECKLISTS

APPENDIX E

RRA Checklists

I. Introduction

The RRA checklist is only a guide towards steering the discussion on project impact, whether in a group meeting with rural people or with project officials. To properly understand and utilize check lists, one must go through the Project Dossier thoroughly.

Several areas of investigation have been identified for RRA. These include :

- Physical status of the project including O & M;
- Changes in agricultural practices and supporting services and their impact;
- Changes in non-farm activities and their impact;
- Changes of a socio-institutional nature;
- Changes in the ecology and environment and their impact;
- Changes in fishery activities and their impact;
- Changes in livestock and dairy activities and their impact;
- Changes in the nutritional status of people and factors leading to such status.

The following checklists are drafts prepared for general application. Specific aspects may be added (or deleted) for individual projects in the light of the dossier. Checklists for each RRA will be finalised in the first "organisational" week.

II. Physical Status of the Project incl. O & M.

a) BWDB Engineers checklist :

i) Design & construction agencies (trace key persons involved)

ii) Construction differences from design. Reasons,

details

iii) As built drawings (check, copy). Reasons if not available

iv) History of performance (for each year from completion, plus before full completion if appropriate) : (giving numbers, lengths, areas, mapping impacts, emergency works and engineering costs, reasons)

- overtopping

- breaches

- cuts

- failure of structures

v) Negative impacts of project, reasons, possible remedies

vi) Overall performance of project, reasons for difference from planned.

b) O & M

i) Agencies active in O & M

ii) Source of resources

iii) Staffing levels, intended and actual

iv) Annual expenditures

v) Details of O & M record keeping and programming

vi) Actual performance in O & M, reasons for problems

vii) Detail of beneficiaries participation in operation, and in maintenance. Contributions, length of time, any conflicts in operating decisions

viii) Opportunities for greater involvement of local people in O & M, any obstacles to this

ix) Ideas for improving resource availability locally.

III. Agricultural Changes inside and outside the projected area
Respondents : Farmers/ Officials

i) Cropping pattern when project had just been completed (% of area)

ii) Cropping pattern now (% of area)

iii) What has led to the change?

iv) Irrigation practices before the project and development since then

v) Crop damage before project-which crops, years, impacts, sources of damage?

vi) Crop damage now-which crops, years,impacts, sources of damage?

vii) Crop damage from floods in 1987 and 1988- which crops, yields?

viii) yield per bigha/acre/local land unit of major crops before and now

ix) Availability of credit? Special programmes?

x) Major problems?

IV. Non-farm Activities

Respondents : Key informants/R I. household/Officials

i) Major non-farm activities before and now? (give no. if possible)

ii) Output/productivity

iii) Price of output

iv) Costs per unit
- materials
- labour

v) Labour use

- Own
- Hired
- Outside project area
- Inside project area

vi) Has the project affected the no. of units in operation and how?

vii) What happened during 1987 and 1988?

viii) Housing types (construction) %

ix) Which years with flood damage to housing?, types and % affected, type of failure.

x) Typical replacement times of main house components, current prices.

V. Social and Institutional Changes

Respondents : Key informants/farmers/special groups

a. Occupational categories

b. Employment

i) Labour use norms per acre of major crops - Family vs Hired

Field labour incl. harvest
Post-harvest

ii) Labour use in fishing each trip
No. of days employed
Labour use in fish trading/transport.

iii) Labour use in livestock. poultry, home gardening

Percentage female labour use

c. Wage rates by types of labour

Farm labour
R.I. labour (by type of industry/activity)
Fishermen's assistants
Unskilled workers

d. Busiest and leanest period :

e. Migration

i) To the area - from?
Seasonal, which?
Permanent/annual?

ii) From the area - To?
Seasonal, which?
Permanent/annual?

W A R P O
LIBRARY
DHAKA

f. Literacy rates/enrolment
   Boys - %
   Girls - %

g. Participation in Project Planning/Implementation

   i) Any consultation at any stage?
      Planning, implementation, O & M?

   ii) Any social resistance/conflict during any stage?
       Why? How resolved, if at all?

       Record instances of major conflict resolution.

(VI) Environmental and Ecological Changes
Respondents : Officials/farmers

i) Project impact on
   land elevation (siltation) - Where?
   land erosion - Where?
   Sand deposition - Where?

ii) Project impact on soil characteristics

   Are plants showing unusual growth characteristics?

   Leaf colour
   Leaf, flowers, fruit falling

   New types of weeds replacing old ones - which by which?

iii) Project impact on vegetation cover

   - Status of homestead forestry - no. of trees by type in typical homestead

   - Change in marshland area and vegetation therein

   - Death/loss of tree due to water logging/moisture stress

   - Weed, particularly water hyacinth infestation

   - Vegetation change in dried up canals/beels

iv) Drainage problems and associated health/hygiene issues

   - Prevalence of particular diseases

- Problem of drinking water

- Sanitation problems

VII. Fishery Activities

Respondents : Key informants/Fish traders/Officials

a. Water bodies

(i) No. of water bodies by type and area

Before
Now

(ii) Reason for change

(iii) Previous & present use of dried up/encroached water bodies

b. (i) Existence of distinct full time fishermen

How many ?

Before
After

(ii) Where do they fish ?

Inside/Outside

(iii) If fishing decreased, why ?
Have some moved out ? where ?
Changed occupation ? to what ?

c. Culture fishery

(i) Has there been a change since the project completion ?

Why ?

(ii) How did 1987 and/or 1988 floods affect pond fishing ?

(iii) Extent of loss ? How many have been affected ?

d. Production

Has there been any significant change in the quantity of fish produced annually since project was completed ?

(i) From Inside project : Capture fish?_____
Farmed fish?_____

(ii) From outside project : Capture fish?_____
Farmed fish?_____

(iii) Has there been any significant increase or decline in production of important types of fish, eg. major carps, Hilsa, Boal etc. since the project was completed?

(iv) In general is fish production in the project area and nearby sufficient to satisfy local demand? Has this changed since project completion? If so, then how has it changed?

e. Fish trading/supplies

(i) Number of recognised fish markets in project area ?

Bazar: No_____, Approx nos. of fish traders_____

Hat: No_____, Approx nos. of fish traders_____

(ii) Any change in numbers of fish markets/market traders since project was completed? Details_____

(iii) Average daily quantities of fish handled:

	Dry Season	Monsoon
Wholesale trader	kg.	kg.

Retail trader kg. kg.

(iv) Seasonal changes in fish sale prices by main species groups -

Is maximum around June/July? Minimum prices when?

(v) Any direct effect of project on increasing or decreasing fish supplies & prices ?

(vi) What effect, if any may these changes have on the ability of the rural population, in particular, to buy fish ?

- Do they buy now as frequently as before the project?
- Less frequently?
- Do they buy as much fish as before, or smaller amounts ?

f. In addition to the matters that have been discussed, any other good or bad effects, or any other changes since the project started, on fish traders or families?

VIII. Livestock and Dairy

Respondents : Farmers/officials

(i) Are there observed changes in size and composition of livestock population in the area affected by the project?

If yes, what are those changes ?

	Number	Age	Sex	Composition	%
- Cattle					
- Buffalo					
- Goats					
- Sheep					
- Chicken					
- Ducks					

(ii) Is there any change in the availability of inputs for livestock production in the area after the project ?

For example in :

- Area of pasture land
- Area of fallow land
- Quantity and quality of fodder/straw produced.
- Quantity and quality of forage produced
- Availability and use of crop byproducts
    - Rice polish
    - Wheat bran
    - Pulse bran & grinding
    - Oil cakes
    - Molasses
    - Other byproducts, specify
- Availability and use of crop residues

(iii) Is there any change in the use of rice straw ?

If yes, what are those changes ?

- Animal feeding
- Animal bedding
- Domestic fuel
- House roof

(iv) Use of wheat straw in the area :

- For domestic fuel
- For feeding animals
- For animal bedding

(v) Is there any change in livestock outputs after the project ?

- Availability of draft animals per household
- Use of cows for draft purpose
- Average daily milk production per cow
- Average calving interval per cow
- Average meat yield per cattle
- Average egg production per hen and duck
- Average live weight per hen & duck

(vi) Is there any change in the use of livestock byproducts and waste after the project ? Yes/No_____

If yes, what are those changes ?

- Cowdung as compost
- Cowdung as fuel
- Other by products, specify

(vii) Is there any change in the health condition of the animals and incidence of diseases ?

- Health of the animal
- Incidence of disease
- Occurrence of any special diseases, specify
- Frequency of vaccination

(viii) Is there any change in the price of livestock and livestock products ?

If yes, what are those changes ?

- Price of livestock
  Cattle, sheep. goat, hen, duck
- Price of livestock products
  Milk, meat, eggs

- Price of hides, skin

(ix) What happened to livestock during 1987 and/or 1988 floods ?

How many died ?

How many sold off/slaughtered ?

(x) How did people meet draught power requirements after these floods ?

IX. Change in Nutrition

Respondent : Farmers

a. Change in diet

(i) Has the proportion of people eating at least two meals a day increased/decreased/remained unchanged due to project ?

(ii) Are they eating more or less :

Rice

Wheat

Pulses

Fish

Meat

Milk

Leafy vegetables

X. Prices by unit

Prices in/outside project area and before/after:

Land - Irrigated

- Non-irrigated

Rice - Medium

- Coarse

Wheat flour

Pulses (lentils)

Fish - Large

- Small

Meat (chicken)

Milk -

Rice straw-

Fertilizer- Urea

- Potash

- Phosphate

Irrigation water

Labour - Hired casual

- Hired permanent

- Men-casual

- Women-casual

- Children-casual

Transport by boat

Transport by rickshaw

APPENDIX F

AGRICULTURAL ASSESSMENT MATRIX

AGRICULTURAL ASSESSMENT MATRIX

LAND LEVEL	RABI		KHARIF -I		KHARIF -II	
	PRE	POST	PRE	POST	PRE	POST
HIGH ___/16 (NEVER FLOODED) FLOOD MONTHS PRE: _____ FLOOD MONTHS POST _____ FLOOD IN _____% YRS _____% YRS						
MEDIUM ____/16 (MAX 45 CM.) FLOOD MONTHS PRE _____ FLOOD MONTHS POST _____ FLOOD MONTHS POST FLOOD IN ____% YRS ____% YRS						
LOW (ABOVE 45 CM.) _____/16 FLOOD MONTHS PRE _____ FLOOD MONTHS POST _____ FLOOD IN____%YRS ____%YRS						

APPENDIX G

PIE QUESTIONNAIRES

Hunting Technical Services Ltd.

Bangladesh Institute of Dev. Studies

Sena Kalyan Bhaban, Motijheel, Dhaka

Flood Action Plan - 12

Mouza Community Survey

(To be filled up in discussion with knowledgeable persons in the Mouza/Union)
(All numerical figures must be in english)

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(For office use)

Date:_____

Investigator:_____

Checked by:_____

Project/Area:_____

Upazila:_____

Village/Mouza:_____

Area characteristics: Impacted 1

Control 2

1. **Area of mouza:**_____ Sq.mile _____ Acre
2. **Total cultivable land:** _____ Acre
3. **Population:** Total:_____ Male:_____

   Female:_____ Year:_____

4(a) Distribution of land by elevation at present

Land elevation types	Distribution (%)		Major two crops					
			Aus Season		Aman Season		Boro Season	
	Total	Cultivable	Crop 1	Crop 2	Crop 1	Crop 2	Crop 1	Crop 2
1. Never flooded (high)								
2. Flooded upto 1 feet (medium high)								
3. Flooded 1'-3' (medium low)								
4. Flooded 3'-6' (low)								
5. Flooded 6'+ (very low)								

4(b) Distribution of land by elevation - pre-project

Land elevation types	Distribution (%)		Major two crops					
			Aus Season		Aman Season		Boro Season	
	Total	Cultivable	Crop 1	Crop 2	Crop 1	Crop 2	Crop 1	Crop 2
1. Never flooded (high)								
2. Flooded upto 1 feet (medium high)								
3. Flooded 1'-3' (medium low)								
4. Flooded 3'-6' (low)								
5. Flooded 6'+ (very low)								

Crop code: See Module B

5. Present land distribution by soil type

Soil type	% land	Main two crops		
		Aus	Aman	Boro
1. Clayey				
2. Sandy				
3. Loam				
4. Others				

6(a) Present land distribution by level of salinity

Salinity level	Rainy Season (%)	Dry Season (%)
Not saline		
Slightly saline*		
Very saline		

* Slightly saline means level of salinity which does not damage the crops

6(b) Land distribution by salinity level (pre-project)

Salinity level	Rainy Season (%)	Dry Season (%)
Not saline		
Slightly saline*		
Very saline		

6(c) Which way salinity in this mouza changing?

Increasing 1 Same 2 Decreasing 3 Not sure 9

6(d) If changing, reasons (major three)

_____

_____

_____

7(a) Particulars of irrigation

Source	Code	Sl. No.	Year sunk	Owner-ship type	Maxm. irrign. capacity (acre)	Acreage irrigated last boro season
LLP	1	1.				
		2.				
		3.				
DTW	2	1.				
		2.				
		3.				
STW	3	1.				
		2.				
		3.				
		4.				
		5.				
Water Board Canal	4	1.				
Deshi*	5	1.				

* Instruction: Deshi includes 'don', 'seoti', 'dug well' etc.
Ownership type: Private = 1, Coop. group = 2, Govt. = 3.

7(b) No. of MOSTI: Private ownership _____

Group owned _____

7(c) Reason for shortfall in capacity utilization of irrigation equipments.

Source	Ranking of causes		
LLP 1			
DTW 2			
STW 3			
Canal 4			
Deshi 5			

Code:			
	Insufficient water	=	1
	Sufficient rainfall	=	2
	Fuel shortage	=	3
	Mechanical failure	=	4
	Not repaired in time	=	5
	High water charge	=	6
	Factional in-fighting	=	7
	Long distance from source	=	8
	Others	=	9

8(a) If mouza in impacted area, initiators of flood control measures

Initiators	Code

Initiator codes

Local people - application to WDB/DC	:	1
Local influential people	:	2
Water Board	:	3
Union/Upazila Parishad	:	4
Others	:	5
Not Sure	:	9

8(b) Any local committee during project implementation?

Yes 1 No 2 Not sure 3

If yes, when 19_____

8(c) Any person from mouza in that committee?

Yes 1 No 2 Not sure 3

If yes, who?

Name:_____
Occupation:_____ _____
Education:_____ _____
Land owned (dec.):_____ _____

Name:_____
Occupation:_____ _____
Education:_____ _____
Land owned (dec.):_____ _____

8(d) Whether local people had any doubt regarding the necessity of the project?

Yes 1 No 2 Not Sure 3

8(e) If yes, was there any expression of that?

General dissatisfaction: 1
Conflicting views : 2

8(f) Any violence as an aftermath?

Yes, between this and another village : 1
Yes, between groups in this village : 2
No : 3
Not Sure : 9

If yes, has the feud been resolved?

Yes : 1
No, not completely : 2
Not at all : 3
Not Sure : 9

9(a) Flood frequency before project

Every year : 1
Some of the years : 2
Rare : 3
Not Sure : 4
Not applicable : 9

9(b) Any flood after project?

Yes : 1
No : 2
Not sure : 9

If yes, in which years?

_____
_____
_____

Total no. of years:_____

9(c) Most destructive floods with years

Year	Yes = 1, No = 2
1987	_____
1988	_____

Other years (specify)

_____ _____
_____ _____

9(d) Reason (major three) for flood in years except 1987 and 1988

Reason	
Breach in embankment	1
Public cut by outsiders	2
Public cut by insiders	3
Lack of maintenance	4
Over topping	5
Others	6

9(e) Inundation in mouza during 1987 and 1988

Year	% Area inundated	Code
1987		
1988		

% area code: upto 10% = 1; 10-25% = 2; 25-50% = 3; 50%+ = 4

Maximum depth of water		% area 1987	% area 1988
upto 1'	1		
1'-3'	2		
3'-6'	3		
6'+	4		

9(f) Reason for flood in 1987 and 1988

Year	Reason	Code
1987	_____	_____
	_____	_____
	_____	_____
1988	_____	_____
	_____	_____
	_____	_____

9(g) No. of breach/public cuts

No. of places

1987

1988

9(h) If no breach/public cut in 1987 and 1988, any other major damage?

1987: Yes = 1 No = 2 Not Sure = 9 _____

1988: Yes = 1 No = 2 Not Sure = 9 _____

9(i) People's response in case of breach/cut/major damage

Type of action (Major three)	Code
All take a turn in guarding	1
Sand bag etc. kept handy	2
Police called in	3
Tried to pacify others intent on cut	4
Others	5

Measures taken by	Code
Village people	1
Union people	2
Union parishad	3
Upazila parishad	4
WDB	5

10(a) Crops ever damaged due to drought?

Yes = 1 No = 2 Not Sure = 3

Last drought year Year: 19_____
Not Sure: 99

Which year before that? Year: 19_____
Not Sure: 99

10(b) Any drinking water scarcity due to drought?

Yes = 1 No = 2 Not Sure = 3

Last such year with scarcity?
Year: 19_____
Not Sure: 99

Which year before that? Year: 19_____
Not Sure: 99

11(a) Does water logging damage crops or prevents cultivation?

Yes = 1 No = 2

If yes, frequency of occurrance?

Every year 1 In some years = 2 Not Sure = 3

Last such year when this happened?
Year: 19_____
Not Sure: 99

Which year before that? Year: 19_____
Not Sure: 99

11(b) Change in water logging after project

Same as before 1 Increased 2 Decreased 3 Not Sure 4

11(c) Any initiative to improve water damage after project?

Yes = 1 No = 2 Not Sure = 3 Not Applicable = 9

If yes, under whose initiative? (Major three)

Local youth	:	1
Local influential people	:	2
Land owners in general	:	3
Small land owners	:	4
Large land owners	:	5
Others	:	6

12(a) Damage to housing in the mouza during 1987-88 floods and later

Year	Totally damaged (No.)	Partially damaged (No.)
1987	_____	_____
1988	_____	_____
Other years	_____	_____
	_____	_____

12(b) Normal damage to monsoon crops

Crop	Cultivated Yes = 1 No = 2	With-stand water depth (ft)	1987		1988	
			Maxm. depth	Yield/ acre (anna of normal)	Maxm. depth	Yield/ acre (anna of normal)
B. Aman						
L.T.Aman						
HYV Aman						
B. Aus						
HYV Aus						
Jute						

13. Physical and other infrastructure

(a) Infrastructure

Infrastructure	Distance from mouza (miles)	Dry season			Rainy season		
		Mode of trans-port	Time (hr)	Cost (Tk)	Mode of trans-port	Time (hr)	Cost (Tk)
Bus stop							
R. station							
Launch ghat							
Nearest hat							
Main market							
Pry. school							
High school							
Madrasah							
F. planning/ H. centre							
Bank							
Post office							
UZ centre							

Transport mode: On foot = 1; Cycle/rickshaw = 2; Cart/hackney = 3; Bus = 4; Train = 5; Boat = 6; Launch/Steamer = 7; Any combination = 8.

13(b) Any electricity connection?

Yes 1 No 2

If yes, since when? _____ Year

% of households with connection? _____ %

No. of irrign. equipments run on electricity?

DTW _____ Shallow _____ LLP _____

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13(c) Rural industries in mouza

Industry Type	Number		Nearest facility if not in village now
	Before	After	
Rice husking/Flour mill			
Oil press			
Saw mill			
Repair shop			
Fertilizer/pesticide shops			
Others			

13(d) Source of agricultural inputs

Input Type	Source	
	In village	Out side
Fertilizer		
Diesel		
Pesticides		
Improved seed		

14(a) Seasonal outmigration of labour from this mouza

Yes = 1 No = 2

If yes, where to?

In this Upazila 1
Other upazila 2
Other zila 3

In which season? Aman: 1
Boro: 2
Aus: 3

What for?
1. Agricultural work No. _____
2. Non-agricultural job No. _____
3. Service No. _____
4. Business No. _____
5. Others No. _____

14(b) Any scarcity of labour (agricultural) in this mouza?

Yes 1 No 2

If yes, in which months? _____ Code

_____

Type of job? _____

Month code: Baisakh = 1; Jaishtha = 2; .....; Chaitra = 12

Work type: Land preparation = 1; Sowing/transplanting = 2; Harvest = 3; Post-harvest = 4; Weeding = 5; Others = 6

14(c) Any seasonal in-migration to this mouza?

Yes 1 No 2

If yes, in which months? _____

_____

_____

14(d) Change in daily wage rates

Type of labour/time		Before			Now		
		Months	Kind	Cash	Months	Kind	Cash
Farm	Busy						
	Slack						
Non-Farm	Busy						
	Slack						

Cash equivalent of kind wage: Before _____ Taka

Now _____ Taka

14(e) Permanent migration out of mouza (last 10 years) - No. of households

1. To town _____

2. To other villages _____

No. of near or total landless migrant households: _____

15(a) Change in water transport in the area

No change	1
Only seasonal now	2
No more, not even seasonal	3
Not applicable	4
Not sure	9

15(b) If water traffic has totally or partially stopped, types of disadvantages faced by people

Passenger traffic	1
Goods traffic	2
Livelihood of boatmen adversely affected	3

15(c) If passenger or goods movement have been affected adversely, present mostly used modes of transport (maxm. three)

Bus	1
Rickshaw	2
Cart/hackney carriage	3
On foot	4
Cycle	5
Rickshaw van	6

15(d) If boatmen's livelihood been threatened

No. of boatmen's households

before: _____

Now: _____

15(e) If number has declined, what about the rest?

1	Dead	No. _____
2	Migrated out	No. _____
3	Changed Occupation	No. _____
		Which occupation _____

_____

16(a) Cooperatives/Samities/groups (except NGOs)

Name	Active (1) Not Active (2)	Number of Members	Type of Activity

16(b) NGO activities

Name of Organisation	Year Begun	Activity	Code	No. of households

Activity type:

KSS - ag. group	-	1
BSS/group	-	2
MBSS/group	-	3
Rural maintenance	-	4
Any other	-	5

17(a) Land price (Tk./decimal)

Irrigation facility	High		Medium		Low	
	Before	Now	Before	Now	Before	Now
With						
Without						

17(b) If land price has increased, has it been gradual or within 2/3 years of project?

Within 2/3 years mostly : 1
Gradual : 2
Not Sure : 9

Any other information on land price: _____

_____

_____

18. Types of problems increased/aggravated since project

Type of problem	Code
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

HUNTING TECHNICAL SERVICES LTD
BANGLADESH INSTITUTE OF DEVELOPMENT STUDIES
SENA KALYAN BHABAN, MOTIJHEEL, DHAKA

FLOOD ACTION PLAN COMPONENT 12
EVALUATIONS OF COMPLETED FCD/I PROJECT
GENERAL HOUSEHOLD QUESTIONNAIRE - MODULE A

Office use

Date of Interview _____
Investigator _____
Checked by _____
Project/study area name _____ _____
Upazila _____ _____
Village _____ _____
If impacted (1) or control (2) _____ _____
Household number _____ _____
Name of household head _____
Name of father/husband _____

1 Household composition and occupations

a) Details of the household head:

age (in full years)_____ _____
sex _____ _____
education level _____ _____
main occupation _____ _____
second occupation _____ _____
third occupation _____ _____

If respondent is different from household head: age _____
occupation _____
relation with household head _____

Code :

Sex: Male=1, Female=2
Education : Illiterate (cannot read/write in Bengali) = 1; Upto primary level (class 5) = 2; Class 6-class 10 = 3; Above class 10 = 4; Informal literate = 5; Religious education only = 6.
Occupation: Self cultivation = 1; Cultivation under supervision = 2; Agricultural labour = 3; Fishing = 4; Business/shopkeeping = 5; Blacksmithy = 6; Pottery = 7; Carpentry = 8; Masonry work = 9; Rickshaw pulling = 10; Boatman = 11; Cart driver = 12; Other transport worker = 13; Petty trade = 14; Weaving = 15; House maid/house servant = 16; Salaried/service = 17; All other non-agricultural labour = 18; Barber = 19; Washerman = 20; Housewife = 21; Student = 22; Begging = 23; All others = 24; Invalid, n/a = 25

Relation with household head:

father/husband/son	= 1
mother/wife/daughter	= 2
brother	= 3
sister	= 4
others	= 5

b) If the present household head was also the head at the time of project completion?

Yes: 1, No : 2

If not, since which year household head? Bengali year_____

c) How many household members of different category are there?

Category	Male	Female
Total no.		
Adult earning income (15+)		
Adult but not earning income/ invalid (15+)		
Non-adult but earning income (upto 15)		
Non-adult and not earning income (upto 15)		
Housewife		
Infant (upto 5)		
Children (6-15)		
Permanent labour		
Absentee but sending income		
Other absentee		

d) How many of the children (6-15 years) go to school?

Boys _____ Girls _____

Can they go to schoold throughout the year?

Yes = 1 No = 2

e) For the main providers of household needs what were their occupations before compared with now? (code as with household head).

Member	Sex	Before		After	
		Main Occupation	Second Occupation	Main Occupation	Second Occupation
Main earner					
Second earner					
Third earner					
Fourth earner					

2 Land owned or in use by household

Land type	Total land (deci)
Homestead	
Separate vegetable plot	
Separate bamboo grooves	
Separate orchard	
Pond - fish culture	
Pond - not cultivated	
Other (non-cult) land	
Own land under own cultivation	

For households with land under cultivation, module-B on agriculture must be administered.

For households with pond fish culture module-D on pond fish culture must be administered.

3 Asset ownership

Does your household own any of the following (number)?

Types of asset	Code	Number	
		Fully owned	Partly owned
Plough	01		
Power tiller/tractor	02		
Sprayer	03		
Hand tubewell	04		
MOSTI	05		
Deep tubewell	06		
Shallow tubewell	07		
Low-lift pump	08		
Local Irrigation Equipment	09		
Fishing net	10		
Boat	11		
Cart/Hackney cart	12		
Bicycle	13		
Rickshaw/van	14		

Any other information on assets : _____

_____

_____

HUNTING TECHNICAL SERVICES LIMITED
BANGLADESH INSTITUTE OF DEVELOPMENT STUDIES
SENA KALYAN BHABAN, MOTIJHEEL, DHAKA

FAP - 12

EVALUATION OF COMPLETED FCD/I PROJECT
MODULE B: AGRICLUTURE

Office use

Date of interview : _____
Investigator : _____
Checked by : _____
Project/study area: _____
Upazila : _____
Village/mouza : _____
If impacted (1) or control (2)
Household No. : _____
Name of household head : _____
Name of father/husband : _____

1. Information about land under cultivation and land ownership

a) What was the amount of land cultivated and used otherwise during the last year (Ashar 1397 - Jaisthaya 1398) (in decimals)

	Aush (397)	Aman (1397)	Rabi/Boro (1398)
Total cultivable land owned			
- land shared out			
- Land rented out			
- Land given out as khai khalashi, etc.			
= Own land under own cultivation			
+ Land shared in			
+ Land rented in			
+ Land taken in as khai khalashi, etc.			
+ Total land under cultivation			
= Total (decimals)			

b) Do you have any land that was totally uncultivable before the flood control project?
Yes = 1, No. = 2

If yes, what was the amount of land and why it was uncultivable? (It will not include land used for dwelling purpose)

Amount of land : _____

Reason (Code) : _____

Reason Code : Water logging = 1, Salinity = 2, Scarcity of water = 3, others = 4

2 a) In case of share cropping, what are the crops that you cultivate? Under what conditions?

Crop		Input provided by share cropper				Share Cropper's share of crop
Name	Code	Seeds (%)	Fertilizer (%)	Irrigation (%)	Pesticides (%)	
1.						
2.						
3.						
4.						
5.						
6.						

Crop Code : Aush local transplanted = 11; Aus Broadcast = 12; Aush HYV = 13; Jute = 14; Sugarcane - 15; Aman local broadcast = 21; Aman local transplanted = 22; Aman HYV 23; Aush-Aman mixed = 24; Boro local = 31; Boro HYV = 32; Wheat = 33; Pulses = 41; Potato = 42; Sweet potato = 43; Oil seeds = 44; Tobacco = 45; Chilli= 46; Onion/Gurlic = 47; Other spices = 48; Summer vegetables = 51; Winter vegetables = 52; Banana = 61; Mango = 62; Pupya = 63; Jackfruit = 64; Watermelon = 65; Coconut = 66; Other fruits = 67; Betel leaf = 71; Betel nut = 73; Date = 73; Others = 81

b) In case of renting in of land, what is the rate?

Annual rate/acre : _____

rate/acre : _____

Seasonal rate/acre: _____

rate/acre: _____

3. Problems of cultivation (other than flood)

a) Moisture condition of soil in the Boro/Rabi season:

Land elevation	Moisture condition	Code	Measures Taken			
High (flood free)			Less Moisture	Code	More Moisture	code
Medium High (flooding upto 1'						
Medium low (floodding 1'-3')						
Low (flooding 3'-6')						
Very low flooding 6' +						

Moisture code: Lesser moisture = 1
More moisture = 2
Same as before = 3
Can't say = 9

Measure Code: Don't cultivate the land = 1
Cultivate crops that grow in lesser moisture = 2
Cultivate with the help of irrigation = 3
Cultivate crops that grow in more moisture = 4
Cultivate with the help of drainage = 5

What are the crops that you cultivate because of lesser moisture?

What are the crops that you cultivate because of more moisture?

b) Salinity

What are the months during which your land is affected by salinity that cause problem to cultivation?

Period	High (no flooding)	Med. High (upto 1')	Med. Low (1-3')	Low (3-6')	Very low (6+')
	Months	Months	Months	Months	Months
Before					
Code					
After					
Code					

Note : Elevation refers to as at present.

4. Crop Production

Description of plots

Plot No	Area (dec)	Location	Mode of acquisition (Code)	Irriga-tion source (Code)	Level code	Normal Flood Period				Normal highest water level (ft)	
						Before		Now		Before	Now
						Starting month	Ending month	Starting month	ending month		
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											

Code: Mode of acquisition : Own land = 1; Share crop in = 2; Rented in = 3; Khai khalashi etc.= 4.

Irrigation source : Power pump = 1; DTW = 2; STW = 3; PDB irrigation canal = 4; Deshi = 5; MOSTI = 6; No facility = 9.

Level : High (flood free) = 1; Medium high (floodding upto 1') = 2; Medium Low (flooding 1'-3') = 3; Low (flooding 3'- 6') = 4; Very low (flooding 6+')= 5; Not applicable/No response = 9.

Month Code : Baisakh = 1; Jaisthaya = 2; Ashar = 3; Sravan = 4; Bhadra = 5; Ashwin = 6; Kartik = 7; Agrahayan = 8; Poush = 9; Magh = 10; Falgoon = 11; Chaitra = 12.

Location Code : Inside = 1; Outside = 2.

* mention should be made of week along with month; for example, third week of Baishak should be put as 01/3.

4. Crop Productin

(In case a crop is not cultivated during normal period of the season, question no. 6 must be filled in)

Boro/Rabi Season 1398						Aman season, 1397					Aus season, 1397				
Plot No	Crop Name	Crop Code	If irrigated Yes=1 No =2	Total production (mds)	If the season was normal yes=1; No =2	Crop Name	Crop Code	If irrigated yes=1, No = 2	Total Production (mds.)	If season was normal Yes= 1; No=2	Crop Name	Crop code	If irrigated yes=1 No=2	Total production (mds)	If season was normal Yes = 1 No = 2
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															

Note : In case of mixed crop cultivated in the same plot, individual productions should be mentioned.
: Total production refers to whole production including share to sharecroppers.

5. Use of inputs

Inputs	Crop Name			Crop Name		Crop Name		Crop Name	
	Crop Code			Crop Code		Crop Code		Crop Code	
	Total Land (dec.)			Total Land (dec.)		Total Land (dec.)		Total Land (dec.)	
	Unit	Total use	Total cost	Total use	Total cost	Total use	Total cost	Total use	Total cost
Seeds	KG.								
Seedlings	Taka								
Fertilizer Urea	KG.								
TSP	KG.								
Potash	KG.								
Zinc	KG.								
Organic fertilizer (cow dung)	Maund								
Pesticides	Taka								
Labour Land preparation	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
Sowing/ transplantation	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
Weeding	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
Apply insecticides/ fertilizers	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
Irrigation	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
Harvesting	Family : ____ No. ____ Days			____ No. ____ Days		____ NO.____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____Days		____ No. ____ Days	
Threshing	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	HIRED : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
Thresher hire	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
Stripping of fibre	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
number of ploughing (no. of haals)	Family : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
	Hired : ____ No. ____ Days			____ No. ____ Days		____ No. ____ Days		____ No. ____ Days	
Power tiller/tractor	Family : ____ No. ____ Tk.			____ No. ____ Tk.		____ No. ____ Tk.		____ No. ____ Tk.	
	Hired : ____ No. ____ Tk.			____ No. ____ Tk.		____ No. ____ Tk.		____ No. ____ Tk.	
Cost of ploughing	Family : ____ No. ____ Tk.			____ No. ____ Tk.		____ NO.____ Tk.		____ No. ____ Tk.	
	Hired : ____ No. ____ Tk.			____ No. ____ Tk.		____ No. ____ Tk.		____ No. ____ Tk.	
Mechnical irrigation	_____Tk.			_____Tk.		_____Tk.		_____Tk.	

Note : 1 ploughing = 8 hours work of a pair of bullocks

Labour : Hours per day? During harvesting period : _____
Other times : _____

Wage : Daily wage ? During harvesting period : _____
In Cash : _____
In kind : _____
Cash eq. of kind: _____

Other times

In Cash : _____
In Kind : _____
Cash eq. of kind : _____

Wage : Contract : Harvesting period

In Cash : _____
In Kind : _____
Cash eq. of kind : _____

Other times

In Cash : _____
In Kind : _____
Cash eq. of kind : _____

Any other information about contract : _____
_____
_____

6. Problems of crop production during 1397-98 B.S.

In case that the last year wasnot a normal year of production, please give the details of the problems affecting the production.

Season	Crop Name	Crop Code	Nature of Problem	Problem Code	Normal production

Problem code : Flood = 1; Draught = 2; Salinity = 3; Pest/disease = 4; Others (specify) = 5

HUNTING TECHNICAL SERVICES LIMITED

Bangladesh Institute of Development Studies

Senakalyan Bhaban, Motijheel, Dhaka

Flood Action Plan - 12

Evaluation of completed FCD/I Project

Women Issues, Home Production and Nutrition Module C

To be filled in office

Date of Interview: _____

Name of Investigator: _____

Checked by: _____

Project/Research Area: _____

Upazila: _____

Village/Mouza: _____

Area Characteristics: Impacted 1

Control 2

Household No.

Name of Household Head: _____

Father's/Husband's Name: _____

1. a) Name of respondent: _____

b) Identity: Wife of HH head _____

Mother/mother-in-law of HH head _____

Others _____

2. a) Do you know how much cultivable land your family owns or how much has been cultivated this year?

Yes 1, No 2, Not sure 9

b) If yes, how much is

cultivated this year _____ decimals

owned _____ decimals

3. a) Is there any woman working as a labourer/wage labourer in your household ?

Yes 1, No 2,

b) Does any female member of your household work as a wage labour in places outside your house ?

Yes 1, No 2,

4. Agricultural and non-agricultural tasks performed by household members and hired female labour

a) In your household do female members perform the following agricultural tasks ? Did they do them before the project ? Do the male members take part in these tasks now ? before ?

Yes 1, No 2,

Code	Type of Task	HH Female members		Hired Female		HH Male members	
		Now	Before	Now	Before	Now	Before
1.	Storing and preserving seeds						
2.	Land preparation						
3.	Sowing						
4.	Transplanting rice						
5.	Weeding						
6.	Manual irrigation						
7.	Harvesting						
8.	Stripping jute fibre						
9.	Threshing paddy/wheat						
10.	Parboiling/drying paddy						
11.	Husking						
12.	Storing and preserving crops						
13.	Prepares land for homestead crops						
14.	Care & harvesting of homestead crops						

b) In your household do female members perform the following non-agricultural tasks ?

Yes 1, No 2. If yes, which ?

Code	Types of Non agricultural tasks	Before	Now
1.	Earth work and repair of roads/embankment		
2.	Brick breaking		
3.	Working as helper		
4.	Bamboo and cane work		
5.	Pottery		
6.	Quilt making (for sale)		
7.	Tailoring		
8.	Weaving (related activities)		
9.	Fish net making/repair		
10.	Fish Trade		
11.	Petty Trade/shopkeeping		
12.	Hawker		
13.	Salaried service (specify)		
14.	Others (specify)		

c) Since the completion of the project, in which of the above mentioned agricultural and non-agricultural tasks has female participation changed?

Changes	Agricultural task	Code	Non-Agricultural task	Code
Increased				
Decreased				

d) If there has been any change, what are the reasons ? (main three)

Changes	Agricultural task	Code	Non-Agricultural task	Code
Reason of Increase				
Reason of Decrease				

e) Has there been any change in hiring of female labours by the household?

Increased = 1

Decreased = 2

No change = 3

Not sure/NA = 9

If there is any change, explain why ?

_____

_____

f) In case the female members of the household work as wage labourers or in case they are self employed, has there been any change in this regard since the project ?

Increased 1

Decreased 2

No change 3

Not sure/NA 5

If there is any changes, explain why ?

_____

_____

_____

5. Trees in homestead

a) What are the types of trees you have in the homestead ?

How many ? (5 most important types and others)

If none, skip to question 6

Type	Code	No. Before	No. Now
1			
2			
3			
4			
5			
6			

Tree Code: Mango = 1, Jack fruit = 2, Banana = 3, Coconut = 4, Betel nut = 5, Bamboo = 6, Cane = 7, Palm = 8, Others (Specify) = 9

b) Who planted the trees and Who takes care of them ? Who harvests the the fruits ?

Activity	Primarily Women: 1	Primarily Men: 2	Both: 3
Planting			
Caring			
Harvesting			
Collection of fire wood			
Cutting trees			

c) Who takes decision to plant, cut or harvest trees ?

Activity	Primarily Women: 1	Primarily men: 2	Both: 3
Planting			
Harvesting			
Cutting trees			

6. Vegetables

a) Do you grow vegetables in and around your homestead ?

Yes 1, No 2,

If no, skip to question 7

b) Since when are you growing vegetables in and around the homestead?

_____ Years

c) How much land under vegetables cultivation ?

Now : _____ dec

Before : _____ dec

d) Do you use all the vegetables for family consumption ?

Consume all 1

Mostly consumed, a little sold 2

Mostly sold 3

e) Who takes the decision about what to grow, when to harvest and where to sell vegetables ?

Type of activities	Primarily women: 1	Primarily men: 2	Both: 3
1. Planting			
2. Harvesting			
3. Selling			

f) If vegetable growing is mainly for sale, since when have you started to do so ?

_____ years

g) Role of men and women in vegetable gardening

Type of task	Primarily Women: 1	Primarily men: 2	Both: 3
1. Land preparation			
2. Sowing			
3. Weeding			
4. Harvesting			
5. Sale			
6. Storage of seed			
7. Storage of crop			

h) How much of the vegetable produced last 12 months have you sold ? What is the value of the vegetable sold ?

Vegetable	% of produce sold	Total sale value (Tk.)	Production cost
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10. Others			
11. All vegetables			

Directions: If exact information on % sold and total sale value is not available then try to get information of total % sold and total value.

i) Who keeps the income from the sale ?

Husband/son/father 1

Wife/mother/daughter 2

Both 3

j) If kept by wife/mother/daughter, what do you or they do with it ?

Mainly saves 1

Mainly spends 2

Save some and spend some 3

Invest for income earning activity 4

Provide credits to others 5

Not kept by wife/mother/daughter 9

7. Poultry-raising:

a) How many fowls and ducks do you have in the family ?

Type	**No**
Fowls	
Ducks	

If no, then skip to the question 8

b) How many poultry (fowls and ducks) were sold or consumed by the family during last 12 months (Ashar, 1397 - Jaistha 1398)

Type	Bought	Sold	Consumed
Fowls			
Ducks			

c) If bought, how do you finance your purchase ?

Husband/son/brother	1
Self finance	2
NGO	3
Others (Specify)	4
Not sure	9

d) If any has been sold, what is the total price of your sales ?

Tk. _____

e) Did you sell any egg in 12 months ?

Yes = 1, No = 2, Not sure = 9

If yes, for how much ? Tk. _____

Proportion of sales to total output _____%

Proportion consumed _____%

f) Who takes decision regarding monitory involvement in buying and selling of poultry and their eggs ?

Activity	Primarily Women	Primarily Men	Both
Buying			
Selling			
Use of money			

8. If the women spend part or full income from selling of vegetable, poultry or any other means, what do they spend it for ?

Primarily for household expenditure 1

Primarily for personal expenditure 2

Don't spend 3

9. Group co-operative activity

a) Do you or any female member of your household is involved in any group/samity/co-operative ?

Yes = 1 No = 2

If no, skip to question 10

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b) If yes, which group/samity/co-operative are you or any of female family members involved in ?

BRDB Wmen's group/co-operative	1
Any other government women's group	2
NGO group	3
NGO co-operative	4
Others (specify)	5

c) For how many years have you been involved ?

_____ years

d) What benefits have you (or others) received so far from becoming a member ?
(most important three)

Obtained credit	1
Obtanined Vocational training (specify)	2
Obtained job after training	3
Increase in income	4
Increase in personal income	5
Increased self respect	6
Increased respect in family	7
Increased respect in society	8
Literacy	9
Family planning	10
Better child care	11
Better nutritional awareness	12
Others (specify)	13

e) Use of loan (major three uses)

Used for	Code

10. Nutrition, health and Sanitation

(a) Where from do you get your water for washing, cooking and drinking ?

Water use	Now		Before	
	Source	Code	Source	Code
Washing				
Cooking				
Drinking				

Source: Tubewell = 1; Ring Well/Brickwell = 2; K. Well = 3; River/Pond/Khal = 4

(b) How do you rate water quality in different season? (code)

Water use	Dry Season				Rainy Season			
	Before	Code	Now	Code	Before	Code	Now	Code
Washing								
Cooking								
Drinking								

Code: Not bad = 1; Bad = 2; Very bad = 3

(c) If the quality of water is bad or very bad, since why is it so?

Bengali Year _____

Why it is so?

_____

_____

_____

(d) What problems do you face in using water? (at least three)

Cannot clean clothing/utensile

Properly	1
Bad smell	2
Bad colur	3
Gastronomic disease	4
Skin disease	5
Others (specify)	6
No problem	9

Which of these problem have become agravated compared to before? (Major three)

	Code
_____	_____
_____	_____
_____	_____

(e) How many members of your household suffered from various diseases last year?

Disease	Number suffered		No. of times suffered	
	Adult (15+year)	Non-adult (Below 15 Years)	Adult (15+year)	Non-adult (Below 15 years)
Diarrhoea				
Dysentry				
Cholera				
Fever				
Skin disease				
Other disease (specify)				

Direction: Use No. of times suffered = 2, when same person suffered from same desease twice.

11. (a) How much rice, wheat and pulses do you consume every day in the family?

Rice: _____ Poa

Chira/muri _____ Poa

Wheat/flour _____ Poa

Pulses _____ Poa

(b) Do you think that the rice or wheat you consume daily is enough for family?

Yes = 1 No = 2 Not sure = 9

If not enough, how much would be enough?

Rice: _____ Poa

Wheat: _____ Poa

(c) How much rice is consumed daily for men/women of different age? Do you think it is enough ?

Age/Sex	Quantity of rice (chotak)	If sufficient Yes=1, No=2
Adult Male		
Adult Female		
7-8 years boy		
7-8 years girl		

(d) When did your family had protein foods last?

Meat (any type) : _____ days

Fish (any type) : _____ days

Eggs : _____ days

Milk : _____ days

Pulses : _____ days

(e) How many times do you cook each day?

Once 1

Twice 2

Thrice 3

(f) During the last one year, have your family ever gone hungry ? Did it happen before ? During what periods of the year ?

Indicator	Before	Period	Now	Period
Yes, partially: 1				
Yes, fully : 2				
Never : 3				

Period Code:
Baisakh-Jaisthaya = 1, Ashar-Sraban = 2, Bhadra-Ashwin = 3, Kartik-Agrahayan = 4, Poush-Magh = 5, Falgoon-Chaitra = 6

(g) If partially or fully starving, how did you cope ? (Mark main 3)

Got loan : 1

All ate less : 2

Women ate less : 3

Children ate less : 4

Obtained relief : 5

Others (specify) : 6

(h) What types of fuel do you use in your household ? From where do you get them ? Do you have to collect it from outside home ?

Fuel		Used in cooking	Buy	Collected	
				Home	Outside home
Fire wood	1				
Straw etc.	2				
Leaves & branche	3				
Kerosene	4				
Others	5				

Direction: Put appropriate code to the corresponding position starting from the first column.

12. a) **What were various problems you faced due to floods in 1987 and 1988 ?**

(Tick 3 most important problems)

Problems of space for living/sleeping	1
Stomack diseases increased	2
Other diseases increase	3
Problems relating to cleaning and washing	4
Encountered problem in managing drinking water	5
Problem of toilet facilities	6
Ducks and fowls died/diseases broke out	7
Goats and sheeps died/diseases brok out	8
Others (specify)	9

(b) Which of these caused major problems for woman ? (Major three)

Problem	Code

Code: **As before**

HUNTING TECHNICAL SERVICES LIMITED
BANGLADESH INSTITUTE OF DEVELOPMENT STUDIES

SENA KALYAN BHABAN, MOTIJHEEL, DHAKA

FLOOD ACTON PLAN COMPONENT 12

EVALUATION OF COMPLETED FCD/I PROJECTS
POND FISH CULTURE QUESTIONNAIRE - MODULE D

Office use

Date of Interview _____

Investigator _____

Checked by _____

Project/study area name _____ _____

Upazila _____ _____

Village/mouza_____ _____

If impacted (1) or control (2) _____ _____

Household number _____ _____

Name of household head _____

Father's/Husband's name of household head_____

1. a) When did you start pond fish culture? year _____

   b) How many ponds do you cultivate? _____

   c) Do you use the pond for other purposes than for fish culture?

   Yes = 1, No = 2

   If yes, indicate the uses: _____

   Household purpose = 1; Livestock bathing = 2; irrigation = 3.

2 a) Details of pond(s) (start with largest):

Sl. No.	Area in dec.	year culture started (Bengali)	Contains Water whole year? Yes=1, No=2	Pond tenure*	% share of household	Minimum depth in dry season (ft)
1.						
2.						
3.						
4.						

[* own pond = 1; joint ownership = 2; leased for fixed amount (Tk) = 3; share tenure = 4]

Directions:

1. % shape of household should be understood as % of pond ownership. Therefore, in case of lease/share crop do not fill-up this column.

2. If there is water throughout the year then do not fill-up the last column.

3. No. of ponds in 2(c) should be same as this question.

b) Is the pond affected by the flood?

Yes = 1, No = 2, Not sure = 3

Before Project : _____

Now : _____

If yes, what measures are taken to protect the fish?

		Code
Before	_____	_____
Now	_____	_____

If fishes were washed away by 87 and 88 floods? Yes=1, No=2

What was the % decrease in fish catch in the 1st season after the floods?

_____%

c) Details on sharecrop/lease/excavation/purchase of pond.

Pond No.	How obtained (code)	Lease period (no. of years)	Cost of lease, purchase, excavation (Tk)	Reason of excavation (code)	Year of purchase/1st excavation
1					
2					
3					
4					

Code = How obtained: Shares/lease = 1, self-excavated = 2, joint ownership = 3, purchased = 4, Khas = 5, Others = 6.

Reasons of excavation: Fish culture = 1, House construction = 2, Others (specify) = 3

3. Pond preparation for fish culture.

Indicator	If performed, Yes = 1, No = 2	Cost last year (Tk)
Dry/clean pond		
Predatory fish		
Removal of predatory fish with chemicals		
Re-excavation		

If pond was not re-excavated, when was this done last? Year_____

at what cost?

Total Tk _____

Your share of cost Tk._____

4. Stocking and harvesting

Which types of fish (fingerlings) are stocked (Estimate of last year)

Fish group	Fingerlings (Kg)	Total value	Month stocked	Source of findings (Code)
Major Carps[1]				
Exotic carps[2]				
Catfish[3]				
Tilapia				
Shrimp				
Other				

Direction:
1 = e.g. Catla, Rui, Mrigal, Calabaush;
2 = e.g. Silver, Mirror, Grass Carp
3 = e.g. Magur, Shingi

Source code: 1 = fingerling dealer; 2 = government hatchery; 3 = private hatchery; 4 = fisherman; 5 = caught from river, 6 = others

b) Manure, fertilizers and feed used (last year)

Type	Total quantity (Kg)	Total value (Tk)	No times (p/a)
Cow dung			
Chemical fertiliser			
Rice bran			
Wheat bran			
Oilcake			
Others			

c) Other expenditue for fish cultivation last year (except those mentioned elsewhere)

Purchase of fishing net etc. Tk._____

Hiring of labour Tk._____

Other expenditures (specify) Tk._____

Yearly repair cost of fishing net Tk. _____

5. Harvesting and marketing system

a) How is harvesting done? Self = 1; Hire professional fishermen = 2, both = 3

b) Quantity of fish caught last year

Fish type	Total quantity caught (maund)	Price per maund	Total price (Tk.)	Period of catch	
				Starting month	Ending month
Major carps					
Exotic carps					
Cat fish					
Tilapia					
Shrimp					
Others					

c) How payment is made to the hired fishermen?

Cash Tk._____

Share of fish %_____

What was the expenditure last year for this purpose?

Cash paymet : Tk. _____

Share of fish: Kg._____

Total value: (Tk) _____

d) How much of your total catch do you consume? How much do you sell?

Consume/distribute : _____%

Sell : _____%

How do you sell your fish? (rank the answers)

Sell directly to market

Sold to the fishermen engaged for harveting

Sell to other fish traders

e) If sold to the market, what were the means of transport?

boat = 1; rickshaw/van/cart = 2, Bus/Truck = 3, bicycle = 4;
on foot = 5

What is the average expenditure per trip? Tk._____

No. of trips last year? No._____

Other expenditures(average) per trip? Tk. _____

6. Particulars on loan for fish culture

Source	Amount Tk.
Bank	
Mohajan	
Fish Trader	
Relative/friend	
Other	

Was the loan taken used fully for fish culture? _____

Yes = 1, No = 2

If no, what was the amount used for fish culture? Tk. _____

7. Opinion on the fish cultivation compared to before

How does the present conditions for fish culture compare with pre-project period?

much better = 1; better = 2; same = 3; worse = 4; much worse = 5
not sure = 9 _____

If there is any change, to what extent production has increased or decreased:

Increased : _____%

Decreased : _____%

What are the main reasons (3) for change, if any

	Code
1. _____	_____
2. _____	_____
3. _____	_____

8. Extension/advice on fish culture

Where do you obtain advice on pond fish culture? (main two)

UZ Fisheries Officer = 1 UZ Agric. Officer = 2 BRDB = 3 NGO = 4
Others = 5

Has a Fisheries Dept. Extension Officer ever visited your pond? ___

Yes = 1, No = 2

If yes, was his advice useful you?

Yes = 1, No = 2, Did not act as per advice = 3

Has the extension service improved since the project started?

improved = 1; same = 2; worse = 3 _____

9. Problems of Pond fish culture (main three)

Type of problems	Now	Before
1. In getting loan in time		
2. In getting cooperation from Govt. officials		
3. In getting fish fry: in time		
4. In getting good quality fish fry		
5. In getting fertilizers in time		
6. In harvesting fish		
7. In getting technical know how		
8. In getting feeds		
9. In marketing fish		
10. Over pond ownership		
11. Poaching/theft problems		
12. Over topping of ponds due to flood		
13. Fish diseases		
14. Other problem (specify)		

Now _____ _____ _____

Before _____ _____ _____

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SENA KALYAN BHABAN, MOTIJHEEL, DHAKA

FLOOD ACTION PLAN COMPONENT 12
EVALUATIONS OF COMPLETED FCD/I PROJECTS
LIVESTOCK QUESTIONNAIRE - MODULE E

For Official Use

Date of Interview _____

Investigator _____

Checked by _____

Project/study area name _____

Upazila _____

Village _____

If impacted (1) or control (2) _____

Household number _____

Name of household head _____

1. Information on livestock

Type	Total No.	No. kept part of the year	Reason for keeping only part of year	Reason Code
Draught bullock				
Bull				
Dry-cow				
Milch cow				
Cow calve				
Buffalo-adult				
Buffalo-calve				
Goat/sheep				
Duck				
Chicken				

Reason Code: Shortage of Feed/grazing land = 1, High price of feed = 2, Can purchase whenever necessary = 3, Shortage of manpower for rearing = 4, Lack of space for safekeeping during rainy season = 5, Others = 6, NA = 9.

2. Animal feed

a) What are the changes in the types of feed given to your cattle since the project initiation?

Type of Feed	Change	Code
1. Rice Straw		
2. Wheat Straw		
3. Pulse Straw		
4. Rice bran		
5. Wheat bran		
6. Pulse bran		
7. Oil cake		
8. Salt		
9. Green grass availability		
a) from grazing land		
b) from roadside/embankment		
c) from own land		
d) from fallow land		
e) Others (specify)		

Code for change : New feed = 1, No longer given = 2,
More than before = 3, Less than before = 4,
Same as before = 5.

b) Which of the feed types are most important for the livestock?

(name three most important) [code by number from above table]

	Name	**Code**
1	_____	_____
2	_____	_____
3	_____	_____

c) If the cattles graze outside the homestead where is it? inside the project (1), outside the project (2) or both (3)? Is there any change compared to pre-project situation? Why that happend?

		Code
now	_____	_____
before	_____	_____

Code: Inside = 1, Outside = 2, Both = 3.

Reasons for change (3 major reason)	Code
_____	_____
_____	_____
_____	_____

d) Fodder/Forage cultivation (major 3)

	Name	Code	Name	Code	Name	Code
Grow Now						
Grown before						

Code: Napier = 1, Para = 2, Sorghum = 3, Maize = 4, Sunflower = 5, Mashkalai = 6, Kheshari = 7, Others = 8, NA = 9.

3. Costs of purchase of feed/fodder/forage in last year

Sl. No.	Type	Cost/value (Tk)
1.	Grass	
2.	Rice straw	
3.	Wheat straw	
4.	Pulse straw	
5.	Rice bran	
6.	Wheat bran	
7.	Pulse bran	
8.	Oilcake	
9.	Salt	
10.	Molasses	
11.	Other	

4. Disease

a) Do you think that cattle diseases are more widespread since the project completion/19___?

Yes = 1, No = 2, Not sure = 3

b) If yes, which diseases are more widespread? (most important three only)

		Code
1	_____	_____
2	_____	_____
3	_____	_____

c) Why do you think that these diseases are more widespread now? (most important 3)

Shortage of feed	1
Shortage of water	2
Polluted warter due to lack of flood	3
Lack of medical facilities	4
Other	5

d) What were the diseases that your cattle/poultry suffered from last year?

Cattle/Poultry	Diseases	Code
Cow/Buffalow		
Goats/Sheep		
Ducks/Chicken		

e) Were your cattle/poultry vaccinated last year?

Yes = 1, No = 2, Not sure = 3

If yes, for what diseases?

Cattle/Poultry	Diseases	Code
Cow/Buffalow		
Goats/Sheep		
Ducks/Chicken		

f) How much did you spend last year (last 12 months) for treatment of your livestock?

Tk _____

5. Flood Impact

Did the 1988 flood have any effect on your livestock and poultry?

Yes = 1 No = 2 _____

If yes, how many were affected and in what ways?

Effect	Number of				
	Cattle	Goat	Poultry	Buffaloes	Sheep
Drowned/washed away					
Died due to flood related factors					
Had to slaughter due to lack of space for safekeeping					
Could not feed properly					
Had difficulty in safekeeping					
Miscarriage of pregnant cows					
Number of animals of this type owned at time					

6. Gross Income from livestock and poultry (last 12 months)

Source	No./Quantity		Value Tk.
	Units	Total	
Sale of cow/bullock	Number		
Sale of buffaloes	Number		
Sale of goats/sheep	Number		
Slaughter of cow/bullock			
For own consumption	Seer		
For sale	Seer		
Slaughter of goat\sheep			
For sale	Seer		
Own consumption	Seer		
Milk			
Consumed	Seer		
Sold	Seer		
Chickens			
Consumed	Number		
Sold	Number		
Eggs			
Consumed			
Sold	Number		
Skin/hide sold	Number		
Cow dung			
Used	Maund		
Sold	Maund		
Renting out bullocks/plough	Maund		
Renting out cart	Tk.		
Total	Tk.		

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SENA KALYAN BHABAN, MOTIJHEEL, DHAKA

FLOOD ACTION PLAN COMPONENT 12
EVALUATIONS OF COMPLETED FCD/I PROJECT
GENERAL HOUSEHOLD QUESTIONNAIRE - MODULE F

For office use only

Date of Interview _____
Investigator _____
Checked by _____
Project/study area name _____
Upazila _____ _____
Village/Mouza _____ _____
Area characteristics: Impacted (1) _____
Control (2)
Household number _____ _____
Name of household head _____
Name of father/husband _____

1 Description of Household

a) How many rooms does your main house have?
How many stories does it have?
No. of room: _____
No. of storeis: _____

b) Main construction materials of main living room(s) now:

Wall materials	Roof materials	Code

Materials code:

Concrete=1, Roof with tile/CI Sheet and pucca wall=2, CI Sheet roof & wall=3, Roof with CI Sheet/tile and mud wall=4, Roof with CI sheet/tile and wall of bamboo, straw, etc.=5, Both roof and wall of bamboo, straw, etc=6.

c) Condition of main house:
good = 1 fair = 2 bad = 3 ___

d) Since the project was completed have you done any major repair or built any extra room? _____

Major repair=1, New room=2, Both repair and new room=3, None=4.

e) Source of drinking water: now and before

Period	Source	Code
Now		
Before		

Source code: Piped water/tubewell=1, Pucca well/ring well=2, Kutcha well=3, Pond/river/canal=4

f) If not piped water/tubewell, do you boil water for drinking?
Yes=1, No=2

If yes, for how many years? _____ years

g) What sanitary facilities are available to your household now? What facilities were available before?

Period	Facilities available	Code
Now		
Before		

Facilities code: Sanitary latrine=1, Kutcha latrine=2,
No fixed place=3

2. a) Land Acquisition for Flood Control

Reason of Acquisition	Land (decimal)		Compensation Received (Tk.)	Time for getting compensation	Bribe given (Tk.)
	Homestead	Agri.			
Embankment					
Borrow pit					
Irrig. canal					
Drainage canal					
Others					

b) Land transaction since project
Have you purchased or sold any land after completion of the project? Purchased=1, Sold=2, Both=3, None=4.

c) Description of land sold/purchased.

Purchase/ Sale	Plot	Land Elevation		Land (dec)	Value (Tk.)	Bengali Year of transac-tion	Characteristic of seller/buyer	Code
		Type	Code					
Purchase	1.							
	2.							
	3.							
	4.							
Sale	1.							
	2.							
	3.							
	4.							

Code: Characteristic: Small farmer=1, Medium farmer=2, Large farmer=3
Land elevation: High=1, Medium=2, Low=3

3 a). How much money do you invest, if any, in any of the following?

Description	Code	Total capital now	Total loan now	Year started
Rice mill	01			
Brickfield/work	02			
Wholesaling	03			
Retailing	04			
Handicarfts	05			
Boat	06			
Rickshaw/van	07			
Cart	08			
Horse cart	09			
Bus/truck/scooter/tempo	10			
others(specify)	11			

Note : Total loan means total loan used if any, for the particular purpose.

b) Do you have any other loan excepting those mentioned above?
Yes=1, No=2.

If yes, what were the uses of these loans (last year)

Purpose	Total loan used (last year)
Cultivation	
Deep/Shallow	
Hand tubewell	
Purchase of fertiliser	
Others	
Purchase of bullocks/buffalows	
Goat/Sheet	
Ducks/Chicken	
Repair of house	
Daily necessities	
Social expenditures	

4. Income over last year [excludes categories covered elsewhere in other schedules]

Income source	Code	Quantity/Amount	Cash equiv. of goods	Net cash received/income/profit
Shared out land	11			
Rented out land (fixed)	12			
Trees - Fruits/Juice	21			
Trees - Fuel	22			
Trees - Timber	23			
Fishing	24			
Vegetables	25			
Agriculture wage lab.	31			
Earth cutting	32			
Other non-agri. wage labour	33			
Salaried service	34			
Rickshaw	41			
Boatman	42			
Pottery	51			
Blacksmithy	52			
Weaving	53			
Oil press	54			
Sewing/Tailoring	55			
Petty trade/hawker	56			
Rice husking (dheki)	57			
Rice husking (mech)	61			
Large business/shop	62			
Irrig. water selling	63			
Equipment rent	71			
House rent	72			
Other self-employed*	73			

Note : 1. Other self-employment includes: medical services, legal services, other vocations and trades

2. Other non-agri. wage labour includes : house maid/servant.
3. Write in units. Local units to be converted into standard maund/seer/kg. For income from sources coded 11-31, the part received in kind shall be entered in col.3. The cash part shall be entered in the last column.

5 For households with agriculture labour as a source of income

a) How many days in different months did you work during the last year? What were the wage rates during these periods?

Month	Code	Inside			Outside		
		Days	Wage Rate		Days	Wage Rate	
			Cash	Cash equivalent		Cash	Cash equivalent
Baishak	01						
Jaistha	02						
Ashar	03						
Shrabon	04						
Bhadra	05						
Ashwin	06						
Kartik	07						
Agrahayan	08						
Poush	09						
Magh	10						
Falgon	11						
Chaitra	12						

b) At the time of project initiation which were the peak and the slack months? what is the situation now?

Period	Peak months	Slack months
Now		
Code		
Before		
Code		

If there is any change, state the reason_____

_____

_____

c) Does anyone in the household migrate away from this area for emplyment at any season? now?; and before project completion?

Period	Main place	Main Season	Code
Now			
Before			

Code: Place- Within the Upazila, inside=1, Within the Upazila, outside=2, Another Upazila, inside=3, Another Upazila, outside=4, Others=5.
Season- Aus=1, Aman=2, Boro=3

6 For households with non-agricultural labour income

a) Peak and lean months for employment before and after the project and the number of days employed.

Indicator	Now		Before	
	Months	Average days	Months	Average days
Peak Period				
Lean Period				

b) Has there been any change in the demand for your labour since the project has been completed?

Increased=1, Decreased=2, Same=3, NA/DK=9 _____

If changed, why has this happened?_____

_____

_____

7 **For households with trade, business or transport incomes**

a) Since completion of the project has the demand for your business/ services changed?

Increased=1; Decreased=2; Same=3; Not sure=9 _____

What are the reasons for change (if any) ?

_____

_____

_____

b) Has the volume of goods being transported changed since project completion?

1=increased; 2=decreased; 3=same; 9 not sure _____

Which goods are moved more now? (main 3)
Which goods are moved less now? (main 3)

Change	Goods			Code
Increased				
Decreased				

8. a) In which year did flood damaged your homestead? Year_____
What was the depth of water in your homestead? ft. _____
and for how long? days _____
When did water start coming? (Month/week) _____

b) Damages to the household and their extent

Category of loss	Code	If damaged Yes=1, No=2	Rep/Rpl Yes=1, No=2	Rep. cost/ loss
Main House	1			
Stored foodgrain/crop	2			
Utensils	3			
Implements	4			
Other possessions / furnishings	5			
Equipment/Machines	6			
Shop/business structure	7			
Shop/business inventories	8			
Others (specify)	9			

c) During the last flood that damaged crops which standing crops were there when flood water started to enter the field? What were the extent of damage? How ?

Water started coming in Week_____ Month_____ Year_____ Code_____
Water receded completely Week_____ Month_____ Year_____ Code_____

Standing crops	Land Elevation	Crop Code	Elevation Code	Max. depth of water during flood	Days water remained	Damage to Crop (%)	Remarks

Crop code: Aus, deshi, Transplanted=11, Aus, broadcast=12, Aus HYV, Transplanted=13, Jute=14, Sugarcane=15, Aman local broadcast=21, Aman local transplanted=22, Aman HYV transplanted=23, Boro local=31, Boro HYV=32, Wheat=33, Pulses=41, Potato=42, Sweet potato=43, Oil seeds=44, Tobacco=45, Papper=46, Onion/Garlic=47, Other species=48, Summer vegetables=51, Winter vegetables=52, Banana=61, Mango=62, Papaya=63, Jack fruit=64, Water melon=65, Coconut=66, Other fruits=67, Betel leaves=71, Betel nut=72, Dates=73, Others=81.

Elevation code: High (not flooded)=1, Medium high (Upto 1' water)=2, Medium low(1-3' water)=3, Low (3-6' wter)=4, Very low (6'+ water)=5.

9 Food consumption

a) Do you suffer from food shortage during any time of the year?

Yes=1, No=2

If no, go to 9(b)
If yes, during the last year approximately how many days a month did your household eat one, two or three meals a day?

Month	Code	No. of days in a month		
		no starvation	partial starvation	full starvation
Baishak	01			
Jaistha	02			
Ashar	03			
Shrabon	04			
Bhadra	05			
Ashwin	06			
Kartik	07			
Agrahayan	08			
Poush	09			
Magh	10			
Falgon	11			
Chaitra	12			

b) (For the cultivator household) How many months of supply of rice/wheat do you produce now, and how many months supply did you produce on average before project completion ?

Now _____ months
Before _____ months

10 Opinions about the project [only for affected/influenced area]

a) Did anyone from the household do any work during the construction of any part of the project?

Voluntary labour (earth cutting) =1
Paid work (earth cutting =2
Worked as contractor =3
Labour Sarder =4
Others (specify) =5

b) Benefits and disbenefits of the rpoject

Type of Benefit	Code	Degree of Benefit/Disbenefit	Code
Type of Disbenefit			

Code : Type of benefits

Protection of crop from flood=1, Additional crop=2, Cultivation of HYV=3, Protection of House=4, Increased irrig. facilities=5, Protection of livestock=6, Better road communication facilities=7, Increased fish culture=8, Increased opportunity for rural industry/investment=9, Others (specify)=10.

Type of disbenefits

Damage to crop due to water logging=1, Decreased soil fertility=2, Increased dryness of soil=3, Lesser deposit of alluvium=4, Less water for irrigation=5, Decrease of fish in canal/beel=6, Obstruction to river transport=7, Others (specify)=8.

Degree of benefit/disbenefit : Much=1, a little bit=2.

c) Who do you think have benefited or disbenefited most from the project? (main 3)

	Group	Code
Benefit		
Disbenefit		

Group Code: Large landowners=1, Small landowners=2, Mainly labourers=3, Mainly farmers=4, Mainly fishermen=5, Mainly traders=6, Mainly boatmen=7, People living outside the project=8, Others=9, None benefitted/disbenefitted=10, Can't say=99.

d) What major problems have arisen due to the project?
How intense are these problems?

Problem	Code	Intensity of Problem	Code
Breach of Embankment	01		
Public cuts in embankment	02		
Drainage congestion	03		
Reduced soil moisture	04		
Soil erosion	05		
Reduced soil fertility	06		
Loss of fishing ground	07		
Increased pollution of water bodies	08		
Others (specify)	09		

Intensity code : Major problem=1, Minor problem=2.

11 Conflicts over project implementation

a) During project implementation did you have any doubts about the necessity of the project? (Max. 3)

No	1
Yes, because no flood problem here	2
Yes, because project would cause drainage problem	3
Yes, because public works generally bring misery	4
Yes, other (specify)_____	5
Not sure	9

If yes, did you take any measure to prevent construction?

Yes=1, No=2

If yes, what measures were taken? (main 3)

Filed lawsuit	1
Applied to BWDB	2
Applied to DC	3
Tried to resist physically	4
Demonstrated against local admin	5
Others	6

b) Who were most vociferous in protest? (main 3)

all landowners in the area	1
only small landowners	2
mostly labourers	3
mostly fishermen	4
people whose land was acquired	5
people living outside the project	6
only big land owners	7
others	8

c) Who supported the project most? (main 3)

Rich farmers	1
All farmers	2
Contractors	3
UP Chairman/Member	4
Other land owners	5
Others (specify)	6

12 Irrigation

a) For how many years are you using irrigation water in any of your plots?

_____ years

b) For how many years are you using facilities of mechanical irrigation?

_____ years

c) Do you think that mechanical irrigation would not have been possible if the embankment had not been constructed?

Why?

Yes, site for DTW/STW was under water before	1
Yes, land now irrigated was under water before	2
No, irrigation could be possible even if there had been no embankment	3
Can't say, irrigation was not needed before	4
No sure	9

d) How many machines do you use for irrigating your land?

_____nos.

Who own these machines?

Irrigating machine	Type of ownership	Code
1st machine		
2nd machine		
3rd machine		

Ownership code: Own=1, Shared with others=2, Owned by other people = 3, Owned by other irrig. group=4, Cooperatives=5, Govt.=6, Others=7.

e) If buy water for Irri Boro, how do you pay for it?

Machine type	Code	Taka/dec.	Share of crop	Cost of Diesel/dec.

Machine type code: DTW (Diesel)=1, DTW (Electricity)=2, STW (Diesel)=3, STW (Electricity)=4, LLP (Diesel)=5, LLP (Electricity)=6, MOSTI=7

13 Groups and extension

a) Does members of the household belong to any of the following groups? If member of group, since when, with what type of benefit? (major 3)

Type	If active Yes=1,No=2	No. of members	since when (year)	Receive credit Yes=1,No=2	Receive training Yes=1,No=2
1. KSS					
2. BSS					
3. MBSS					
4. Grameen Bank					
5. NGO group					
6. Other (specify)					

b) Who do you take advice from on the following? (major 3)

Field of decision	Code	Mainly from whom	Code
Decision on crop to grow	1		
Type of fertiliser to use	2		
Rate of fertiliser use	3		
Crop disease control	4		
Pesticide brand to use	5		
Pesticide application rate	6		
Livestock disease control	7		
Others (specify)	8		

Advisor code: UZ agric. officer=1, UZ Fisheries Officer=2, UZ Livestock Officer=3, Block Supervisor=4, Model Farmer=5, Landlord=6, Neighbour/Relatives=7, Own Experience=8, Others=9.

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EVALUATIONS OF COMPLETED FCD/I PROJECTS
FISHERMANS QUESTIONNAIRE

Office use

Date of Interview _____
Investigator _____
Checked by _____
Project/study area name _____
Upazila/Mouza _____
Village _____ _____
If impacted (1) or control (2) _____
Household number _____
Name of household head _____
Father/Husband's name _____

1 **a) Did you inherit fishing as occupation?**
Yes = 1, No = 2
If no, for how many years are you engaged i this occupation? _____ years
What was your earlier occupation ?
Main occupation _____
Second occupation _____
Why have you started fishing for a living? (two main reasons)

Reason	Code

b) How do you catch fish (main three)
In a group = 1
As a family = 2
Employed by someone else = 3
On your own = 4
Others = 5

If you fish in a group or family unit, how many people are there working together usually?
_____

2. Particulars of fishing ground

a) Where do you fish at present during a year? Compared with just before the project/19__ have you changed the places you fish?

Fishing ground type	Name of ground	Location code	Fish now Yes=1, No =2	Fish before Yes=1, No=2	Ownership code	If Leased Yes=1, No=2	Lease period (years)	Lease cost Tk
River 1								
River 2								
River 3								
Channel 1								
Channel 2								
Channel 3								
Beel/Haor 1								
Beel/Haor 2								
Beel/Haor 3								
Own-cult Pond 1								
Own-cult Pond 2								
Own-cult Pond 3								
Others Pond 1								
Others Pond 2								
Others Pond 3								

Location code : Within project area = 1; Outside project area = 2

Ownership code: Govt./Khas: 1; WDB : 2; Cooperative : 3; Private (individual): 4; Private firm : 5 NGO group = 6, Others = 7

b) What are the peak and lean periods for fishing now?

Type of water body	Peak period				Lean period			
	From	Code	To	Code	From	Code	To	Code
River								
Channel								
Beel/Haor								
Pond								

c) Has there been any change in these periods since the project completion?

Yes = 1; No = 2

If yes, what had been the previous peak and lean periods?

Type of water body	Peak period				Lean period			
	From	Code	To	Code	From	Code	To	Code
River								
Channel								
Beel/Haor								
Pond								

d) Why do you think these changes have taken place?
(in order of importance)

		Code
Reason 1 :	_____	_____
Reason 2 :	_____	_____
Reason 3 :	_____	_____

3. Fishing gear

Type of gear	Type of change	Code
Seine net		
Cast net		
Dip net		
Trap net		
Trap		
Hooks		
Others		

Code : Newly used = 1, No longer in use = 2, More in use = 3, Used less = 4, Similar as before = 5, Not sure = 9

4 Fish Culture

a) Do you cultuvate fish yourself? Yes = 1, No = 2 _____
If yes, give particulars of the method followed.

1. Particulars of culture and cost (last year)

i) Fish seeds

Species released	Av. size (inch)	Value/Kg	Total released (kg)	Cost		Sources of fry (code)
				Total	Own share	
Catla						
Ruhi						
Mrigal						
Kalibaus						
Silver carp Talapia						
Others						

Source Code : Own production = 1, Bought from market = 2
Collected from river/beel = 3, Govt. hatchery = 4
Private hatchery = 5

ii) Do you know how many seedlings are contained in one Kg ?

Size (inches)	No. (thousand)

iii) In cae of pond fish culture, please give the total quantity and cost of fertilizers and feeds used.

Indicator	Quantity (Kg)	Total cost (Tk.)
Fertilizer		
Cow dung		
Oil cake		
Bran		

5. Fish Catch

a) What had been the catch of fish (or share of catch) last year (in maunds)?

Species	Open water		Cultured		Sold last year (Tk.)
	Inside	Outside	Inside	Outside	
Rui/Katla/Mrigal					
Silver carp					
Airh/Boal/Pangas					
Hilsa					
Shol/Gajar/Baim					
Chital/Fali					
Shing/Magur/Kai					
Telapia					
Shrimp					
Others					
Total					

b) How would you compare the total catch last year with the average catch around the year of project completion?

About the same : 1 _____

Much more (25%+): 2

Some what more (upto 25% more) 3

Some what less (upto 25% less) 4

Much less (25%+ less) 5

c) Where and in which location have the changes taken place and to what extent?

Type of water body	Extent of change	Code (as above)
Open water		
Inside		
Outside		
Cultured		
Inside		
Outside		

d) Fishing of which species have suffered most? What is the direction and extent of change? (most important three)

Species	Code	Type and extent of change	Code

Change Code: Increased upto 25% = 1
Increased by more than 25% = 2
Decreased upto 25% = 3
Decreased by more than 25% = 4
Same as before = 5
Not sure = 9

Give the reasons (most important three) for these changes.

Reasons	Code

e) **Quantity consumed and sold last year**

What percentage of your catch do you
Sale ? _____ %
Consume? _____ %

6. Particulars of expenditure of fishing/last year (Tk.)

What were the costs last year for fishing operations by your household?

Items	Expenditure (Tk)
Cost of boats	
Cost of hiring boat (including repair)	
Cost of nets	
Cost of hiring gears (including repair)	
Cost of labour (hired lab. + others)	
Cost of fish culture (seed, fert. feed, etc)	
Leasing cost/Fishing right cost	
Interest payment on loan taken for fishing	
Other costs	
Total expenditure	

What is the average life of a boat, without major repair?

_____years

What is the average life of a net, without major repair?

_____ years

7. Particulars of labour use (last year)

a) How many of your family members are involved in fishing and other related activities? Give details by type of activity.

Type of activity	No. of		
	Male	Female	Children
Net making			
Net repair			
Boat making			
Boat repair			
Making/repair of other equipments			
Excavation of pond			
Apply fertilizer/feeds			
Fishing			
Fish processing			
Catching seedlings			
Fish trade-retail			
Fish trade-wholesale			

b) What has been the labour use and productivity in fishing before the project and now?

Indicators	Before (in one year)	Last year
Peak period		
No. of trips		
No. of days/trip		
No. of boats/trip		
Total no. of fishermen/trip		
Total no. of family members/trip		
Average catch/trip (md.)		
Total Catch (md.)		

Lean period

No. of trips

No. of days/trip

No. of boats/trip

Total no. of fishermen/trip

Total no. of family members/trip

Average catch/trip (md.)

Total catch (md.)

c) Employment of family members in fish trade

Indicators	Before (in one year)	Last year
Peak period		
No. of adult men		
No. of adult women		
Av. no. of days-men		
Av. no. of days-women		
Av. qty. (Kg) fish sold-men		
Av. qty. (Kg) fish sold-women		
Lean period		
No. of adult men		
No. of adult women		
Av. no. of days-men		
Av. no. of days-women		
Av. qty. (Kg) fish sold-men		
Av. qty. (Kg) fish sold-women		

d) Is there any fishermen's cooperative in your area? Yes = 1, No = 2

If yes, are you a member of any of these? Yes = 1, No = 2

If yes, what benefits do you get from the cooperative? (major three)

Benefits	Code

8. Other particulars :

a) Do you think that FCD/FCDI project has affected the fish production in the project area?
Yes = 1, No = 2, Not sure = 9

If yes, state reasons (upto three)

Reason	Code

b) Please suggest how fish production can be increased in the project area

Suggestions (utp three)

	Code

c) Do you face problem in marketing fish? Yes=1, No=2, Don't sale=9

If yes, indicate reasons (upto three)

Reason	Code

d) Do you face problm in fish catching? Yes=1, No=2,

If yes, state the problem (upto three)

Problem	Code

e) Do you face problem in getting lease (fishing right)? Yes=1, No=2

If yes, please state the problems (upto three)

Problems	Code

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FLOOD ACTION PLAN COMPONENT 12
EVALUATIONS OF COMPLETED FCD/I PROJECT

FISH TRADERS

Office use

Date of Interview _____

Investigator _____

Checked by _____

Project/study area name _____

Upazila _____

Village/mouza _____

If impacted (1) or control (2) _____

Name of village market _____

Household number _____

Name of trader _____

Name of father/husband _____

1. a) Details of fish trader

age _____

sex _____

education level _____

main occupation _____

second occupation _____

third occupation _____

b) Type of fish trade

wholesaler/aratdar	1
retail	2
bepari	3
others (please mention)	4

c) How long have you been engaged in fish business?
_____ years

How long in this hat? _____ years

In how many more hats are you involved?
_____ hats

d) Are you engaged in fish business throughout the year or part of the year? Was it same before the project ?

Before	Code	Now	Code

Period Code: Throughout the year = 1; Part of the year = 2

If you are not engaged in fish trade throughout the year, for how many months are you engaged now?

For how many months were you engaged before?

Before : _____ months

Now : _____ months

What do you do during rest of the year now?

What did you do before?

Before : _____ Now : _____

Code : _____ Code : _____

e) How many members of your family except you are engaged in fish business ? _____ No.

2. a) From whom (two main sources) do you buy the fish and from where? What were the sources and areas before the project?

Indicator	Now	Code	Before	Code
First source of purchase				
Second source of purchase				
First area				
Second area				

Source of purchase: Fisherman = 1; wholesaler = 2;
Bepari = 3; fish co-operative = 4;
Village people = 5; others = 6

Area code : Project area = 1, outside the project area = 2

b) If purchased both from inside and outside the project, then what is the share from each source? (in % terms)

Indicator	Now (%)	Before (%)
Inside Project		
Outside Project		

3. a) In the haats that you mainly do your business where do these fish mainly come from?

Source	Code
Now	
Before	

Source code: Project area = 1, Outside the project area = 2
Both areas = 3

b) If you sale fish in both the areas, what is their relative importance? (in terms of % of total sales)

Indicator	Now	Before
Within the project area		
Outside the project area		

4. a) Which are the peak and lean months for fish trade now?
Which were the peak and lean months before?

Season	Now				Before			
	Starting month	Code	Ending month	Code	Starting month	Code	Ending month	Code
Peak								
Lean								

b) How many times do you attend hats during the peak and lean season? What were these numbers before?

Season	Now		Before	
	No. of hats attended	Total transaction (maund)	No. of hats attended	Total transaction (maunds)
Peak				
Lean				

c) What is the average quantity of fish that is traded per day during the peak and lean seasons now? What were these amounts before?

Season	Total quantity traded (maunds)	
	Now	Before
Peak		
Lean		

d) What are the types of fish that traded more now? What were these before? (main three)

		Code
Now :	_____	_____
	_____	_____
	_____	_____
Before:	_____	_____
	_____	_____
	_____	_____

5. a) At what rate do you buy and sell the fish now? What were these rates before? (For five main fish types)

Fish type	Code	Now (Tk./maund)		Before (Tk./maund	
		Buy	Sale	Buy	Sale

b) Expenditure pattern in fish trade

Type of expenditure	Taka/trip
Carrying fish to hat	
Hat Toll	
Road Toll	
Ice	
Arat/Godown cost	
Container	
Others	
No. of times attending hat	
Peak period	
Lean period	
Transaction per hat (maund)	
Peak season	
Lean season	

6. What is the number of different types of fish traders in this market now? What was this number before?

Indicator	Now	Before
Wholesaler		
Retailer		
Bepari		
Others		

7. a) What is the change in the fish production in the project area now?

Increased =1; Decreased = 2; same = 3; Not sure = 9

b) If increased, why? (Three main reasons)

Reason	Code
_____	_____
_____	_____
_____	_____

What are the fishes whose production has increased? (main three types)

Fish type	Code
_____	_____
_____	_____
_____	_____

c) If decreased, why? (three main reasons)

Reasons	Code
_____	_____
_____	_____
_____	_____

What are the fishes whose production has decreased? (main three types)

Fish type	Code
_____	_____
_____	_____
_____	_____

8. a) How do you rate your income from fish business compared to that before?

Much better	1
Better	2
Same	3
Less	4
Much less	5

b) If there has been any change in income, why? (main three reasons)

Reasons	Code
_____	_____
_____	_____
_____	_____

9. a) Do you take any loan for fish business?
Yes = 1; No = 2

If yes, from whom? (three main sources)

Aratdar/Mohajon	1
Fish traders coop.	2
Bank	3
NGO/Grameen Bank	4
Relatives	5
Others	6

b) How many times do you take such loans in a month? What is the maximum amount? What were these figures before?

Now: No. of loans/months _____ Maximum amount Tk._____

Before: No. of loans/months _____ Maximum amount Tk._____

c) Do you given loan to other fish traders?

Yes = 1, No = 2

If yes, how many traders do you provide with loan? What is the maximum loan amount? What were these figures before?

Now : No. of traders _____ Maximum amount Tk._____

Before: No. of traders _____ Maximum amount Tk._____

10. What are the major problems of fish trading now? What were the main problems before? (upto 3 problems)

Period	Problems	Code
Now		
Before		

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Flood Action Plan-12 (Agricultural Study)

Rural Industries

(For office use)

Date of Interview _____

Investigator _____

Checked by _____

Project/Area _____

Upazila _____

Village/Mouza _____

Area Characteristics : Impacted : 1

Control: 2

Enterprise Number :

Name of Propriter :

1. a) Type of industry/activity _____

   b) Identity of Respondent _____

   c) When did you establish the enterprise? _____ year

   d) Amount of total initial capital _____ Tk

   Amount of initial working capital _____ Tk

   Amount of working capital at present _____ Tk

2. Capacity utilisation

a) When are the peak and non-peak months for work/production of your outputs?

Period	Now				Before			
	Month from	Code	Month to	Code	Month from	Code	Month to	Code
No Production								
Production at Peak								
Minimum Production								

b) State the scale of operation of your enterprise during the pre-project and post project period.

Period	Average No. of days of operation/month	
	Now	Before
Peak months		
Non-peak months		

3. Use of workers, Raw material and other input (lst one year)

a. Workers

Type of worker (Code)	No. of worker	Average no. of days worked in a month		Average monthly remuneration/cost	
		Peak	Non-peak	Peak	Non-peak
Self					
Family					
Hired Supervisor					
Hired labour					

b. Raw material and Other inputs: (last one year)

Item	Value of monthly consumption (in Tk.)	
	Peak period	Non-peak period
Raw material (Main 3 items)		
1)		
2)		
3)		
Other inputs		
Fuel/electricity		
Repair/maintenance		
Transport/marketing cost		
Miscellaneous cost		
Total cost		

4. (a) Output

Item (Name three important)	Unit	Peak Period		Non-peak period	
		Quantity Produced per month	Value of monthly production	Quantity produced per month	Value of monthly production
Others					
Total					

4. (b) Compared to the time before the project (19____) is your

i) Volume of production

less _____ % more _____ %

same _____ not sure _____

ii) Net profit

less _____ % more _____ %

same _____ not sure _____

iii) Demand for production

less _____ % more _____ %

same _____ not sure _____

5. Miscellaneous

a) Approximately how many enterprises such as yours exist/existed in your village

Period	No.
Now	_____
Before the project	_____

b) Could you identify any reason for the change?

i)_____

ii)_____

iii)_____

c) Do you think that the project has benefitted your industry?

Yes = 1 No = 2

If yes, how did it benefit?

Transport of raw materials/products become easy _____

Supply of raw materials Increased _____

Demand for products Increased _____

Others (Specify) _____

d) Damage due to 1988 flood to your enterprise:

Type of damage	Fully damaged	Partly damaged	Repair/Replacement cost
Rooms			
Equipment			
Raw Materials			
Finished Product			
Loss of Work			