

STATEMENT SHOWING THE APPROXIMATED COST FOR P.L.M.  
COMPLETION OF IMPORTANT ROADS UNDER UPAZILA PATIKHATA

UPAZILA : KACHUA						DIST. CHANDPUR							
SL. NO.	Name of Road	Location	Total Length (K.M)	Earth Work required (m <sup>3</sup> )	Amount for earth work (Tk.)	No. of Bridge & Culvert	Total span (m)	Amount required for Bridge & Culvert	Area of pavement (m <sup>2</sup> )	Amount required for pavement.	Total Amount involved	Remarks	
1	2	3	4	5	6	7(a)	7(b)	8	9	10	11	12	13
1.	Hossainpur-Bayek Road	Ashrafpur, Gohat(S) & Karaiya Kachua (S) Sahadebpur(S) Bitara & Sachar. Km.	29.17	3,35,775 m <sup>3</sup>	-	Repair-82 New Construction - 74	-	-	63,516 m <sup>2</sup>	-	As 3,16,92,000/-	As per report of INSPW 1984-85 presently the condition of this Rd. is very bad.	
2.	Kachua- Chowmahani Road	Kadla.	9.9 Km.	61,892 m <sup>3</sup>	-	Repair-13 New Construction.95	-	-	29149 m <sup>2</sup>	-	1,60,75,000.00	-Do-	
3.	Palakhal- Rajbari Road.	Sahadebpur(S) Sahadebpur(W)	7.76 Km.	1,27,126 m <sup>3</sup>	-	Repair -8 New Construction.59	-	-	23103 m <sup>2</sup>	-	1,28,33,000.00	-Do-	
4.	Karaiya- Harichail Road.	Karaiya & Gohat(N)	5.62 Km.	37,961 m <sup>3</sup>	-	Repair- 5	-	-	16485 m <sup>2</sup>	-	50,46,000.00	-Do-	
5.	Teguris- Bitara Road.	Bitara	6.27 Km	1,37,930 m <sup>3</sup>	-	New Construction. 68	-	-	18927 m <sup>2</sup>	-	1,12,28,000.00	-Do-	
6.	Golbahar -Banglabazar Road.	Kadla & Sahadebpur(W)	6.08 (K.M)	1,31,993 "	-	" -94	-	-	17931 m <sup>2</sup>	-	1,40,73,000.00	- Do-	
	Kachua Upazila Complex -Kachua Bazar,Road.	Kadla U.P.	1.60 (Km)	12,105 m <sup>3</sup>	177338.00	1 No.	-	6.095 6,50,000/-	4547 m <sup>2</sup>	8,50,000/-	16,77,338.00	-	
7.	Kachua-Howabpur Road.	Kachua(N)&(S)	8.05(Km)	84,474 "	1237544.00	5 No.	No.	33.526 24,90,000/-	24535 "	1,60,00000/-	1,97,27,544.00	-	
8.	Kachua- Ragunathpur Road.	Kadla U.P.	6.44 "	69,998 "	1025470.00	4 No.	2 No.	33.526 24,90,000/-	19751 "	1,20,00000/-	1,55,15,470/-	-	
9.	Rahmanagar -Jagatpur pipalkara Road.	Gohat(S) & Ashrafpur.	12.075"	80844 "	1184365.00	3 No.	5 No.	20.954 23,75,000/-	37,032"	2,40,00000/-	2,75,59,365/-	-	
10.	palakhal -Charatbanga Road Extension upto Bagkaha Goni.	Sahadebpur(S) &(W)	6.45 "	43,749 "	640923.00	2 No.	4 No.	27.83 22,50,000/-	19780 "	1,29,00000/-	1,57,90,923/-	-	
	Sachar-Bagdail Bayek Road extended upto Junay Kholo.	Sachar U.P.	8.855"	69715 "	1021325.00	8 No.	2 No.	51.81 42,50,000/-	27157 "	1,77,00000/-	2,29,71,325/-	-	
	Rahmanagar-Lonapir Road.	Kadla Gohat (S)	4.83 "	24069 "	352611.00	2 No	2 No	15.239 1250000/-	14810 "	96,00000/-	1,12,02611.00	-	
	Rahmanagar-Harichail Road.	Gohat(N)	4.83 "	18179 "	266322.00	-	4 No.	6.095 240000/-	14810 "	96,20,000/-	1,01,26,322.00	-	
	Baratulageon-Paranpur Road.	Gohat(N)& (S) & Karaiya	9.06 "	86366 "	1269262.00	8 No.	6 No.	71.624 5405000/-	29626 "	1,92,00000/-	2,59,50,262.00	-	
	Kachua-Teguris Road.	Kachua(N)&(S) Sahadebpur(S)	14.49 "	76058 "	1114250.00	6 No.	5 No.	75.282 5525000/-	44439 "	2,88,00000/-	3,54,39250.00	-	

2	3	4	5	6	7(a)	7(b)	8	9	10	11	12	13
Silistan-Badanda Road.	Bitara U.P.	8.05 km.	76242 m <sup>3</sup>	1116945/-	4 No.	2 No.	32.00 "	2495000/-	24530 "	1,60,00000/-	1,96,11945.00	
Sachar-Baraiyara Road Via-Madhupur Bazar.	Pathair(W)	13.685 "	125796 "	1082911/-	6 No.	4 No.	68.576 "	4500000/-	41970 "	2,60,00000/-	3,23,42911.00	
Ujani-Laskari-Duaty Road.	Kachua(N)& Sahadebpur(E)	8.05 "	70083 "	1026716/-	4 No.	2 No.	44.194 "	3495000/-	24535 "	1,60,00000/-	2,05,21716.00	
Moncharpur-Lankara Road.	Karaiya U.P.	9.66 "	74331 "	1088949/-	4 No.	2 No.	33.526 "	2620000/-	29626 "	1,92,00000/-	2,29,03949.00	
Golbahar-Palakhai Road.	Kadla U.P.	4.83 "	41059 "	601514/-	2 No.	2 No.	19.31 "	1495000/-	14810 "	96,20,000/-	1,17,16514.00	
Bachaiya-Frasannacup Road.	Sahadebpur (E)&(W)	8.05 "	533773 "	781973/-	6 No.	2 No.	39.622 "	3120000/-	24520 "	1,60,00000/-	1,99,01973.00	
Koa-Damuria Road.	Karaiya U.P.	2.415 "	19255 "	282085/-	3 No.	1 No.	19.81 "	1625000/-	7400 "	48,00000/-	67,07085.00	
Dhamalua-Bakhaiya Road.	Kachua(S) Kachua(N)	8.855 "	59207 "	867383/-	6 No.	4 No.	42.67 "	2800000/-	27157 "	1,77,00000/-	2,13,67383.00	
Tulpai-Wandanpur- Alara-Silistan- Madhupur Road.	Sahadebpur (W) & Pathair.	15.01 "	156987 "	2299860/-	25 No.	15 No.	198 "	14750000/-	46034 "	3,00,00000/-	4,70,49860.00	
Singadda-Baichara- Durgapur Road. Sachar Road.	Kachua(N) Bitara Sachar.	10.03 "	137830 "	2019210/-	14 No.	8 No.	83.38 "	7800000/-	30820 "	2,00,00000/-	2,98,19210.00	
Bachaiya-Durbeshgong Road.	Sahadebpur (E) & Kadla.	7.085 "	87389 "	1230248/-	8 No.	10 No.	79.00 "	5000000/-	21723 "	1,40,00000/-	2,02,80248.00	

Upasila Engineer,  
Kachua, Chandpur.

Upasila Nirbahi Officer,  
Kachua, Chandpur.

Chairman,  
Upasila Parishad,  
Kachua, Chandpur.



STATEMENT SHOWING THE PARTICIPATION OF PERSONS OF INTEREST IN THE  
 THE JOURNAL AND AT KATHA UNWILLING  
 HHS. CHAIRMAN.

STATE OF TEXAS : - AGRICULTURE.

Category.	Description of work.	No.	Rate per unit.	Estimated cost : Months
1	2	3	4	5
A) For Irrigation	Refrigerator Facilities & Deep Tube Well	400 Nos	0.25. 10.00/No per No	EL. 400.00 LAC
B) For Irrigation & Irrigation	Re-Reservation of 0.001	19 Nos 125 K.M.	0.25. 30.000/- per K.M.	EL. 37.50 LAC
C) For Cultivation	Purchase of Power Tillage	27 Nos	0.25. 2.40 LAC per No	EL. 34.00 LAC

Total EL. 491.50 LAC

By: HHS. CHAIRMAN  
 HHS. CHAIRMAN.

By: HHS. CHAIRMAN  
 HHS. CHAIRMAN.

By: HHS. CHAIRMAN  
 HHS. CHAIRMAN.

STATEMENT SHOWING THE PARTICULARS OF PROPOSED DEVELOPMENT WORKS  
UNDER JAPAN AID IN KACHIN, MYITTHA  
DIST. CHINA.

WORK OF SECTOR :- HEALTH & FAMILY PLANNING.

Purpose	Description of work	Nos	Rate per unit	Estimated Cost (Approximately) (In Lacs)	Remarks
		2		5	6
Prevention	① Development of 50 bed Hospital & S.S.H. centre at sector 3 Bathemager.	2 Nos	Rs. 250.00 Lacs	Rs. 500.00 Lacs	
	② Family Welfare Centre.	08 Nos.	Rs. 10.00 "	Rs. 80.00 "	
Total Rs. 580.00 Lacs.					

5/3/12/8  
Upadila Engineer  
Kachin, Chinayere

Upadila District Officer  
Kachin, Chinayere.

Upadila  
Chairman  
Upadila Panchayat  
Kachin, Chinayere



STATEMENT SHOWING THE PARTICIPATION OF THE UNITED STATES GOVERNMENT IN THE  
 UNDER THE JOINT AND SEVERAL ACTS OF CONGRESS, DECEMBER  
 1871, CHAPTER 12.

NAME OF PROJECT: WATER SUPPLY

Purpose	Description of work	No.	Rate per unit	Estimated cost. (Approximately) (in 1920)
To develop water supply & sanitation.	Production well & pump house	4 Nos	@ Tk. 8.00 Lacs per each	Tk. 32.00 Lacs
-do-	Pipe line	15 K.M.	@ Tk. 10.00 Lacs per K.M.	Tk. 150.00 Lacs
-do-	Urban Sanitation	400 lots	@ Tk. 25,000/- per lot	Tk. 100.00 Lacs
-do-	Rural water supply - tube well	1600 Nos	@ Tk. 3000/- per No	Tk. 48.00 Lacs
-do-	Sanitary latrine for rural area	35,000 Nos. holder	@ 9,000/- per house holder	Tk. 350.00 Lacs
Total Tk.				630.00 Lacs

68/11/1920  
 Upadila Engineer  
 Kachua, Chaudhary.

68/11/1920  
 Upadila District Officer  
 Kachua, Chaudhary.

68/11/1920  
 Upadila District Officer  
 Kachua, Chaudhary.

STATEMENT SHOWED THE POSITION OF THESSALONIANS  
 UNDER J. WARD AND AT KENYA BEACH.  
 SGT. CHANDLER.

# NAME OF SECTOR : -

[illegible]

67-0712189  
Special Engineer  
Ecology - Conservation

2/10/36  
Special Attaché officer  
Kashmir, Chanderpur.

Chlorophyll  
Section, Spindle  
Section, Spindle  
Section, Spindle



STATEMENT SHOWING THE PARTICIPANTS OF ECONOMIC DEVELOPMENT SCHEME  
UNDER JAPAN AID AT KACHUA USAMILA  
MISSE, CHAMUSCA.

NAME OF SECTOR :- Development of Growth Centre

Purpose.	Description of works	Nos	Rate per unit	Estimated cost :(Approximately) :(in Lacs)	Remarks
1	2	3	4	5	6
Purchasing & salaries of Agriculture Produce Property	Development of Growth Centre in all respects	4 Nos	@ Rs. 500.00 Lacs	Rs. 2000.00 Lacs	

Total Rs. 2000.00 Lacs

Gr 2/12/62  
Special Engineer  
Kachua, Chamusca

Opdella Kiroshi Officer  
Kachua, Chamusca

24/12/62  
Chairman  
Opdella Kiroshi  
Kachua, Chamusca

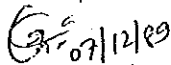
**LIST OF BAZARS WITH KACHUA UPAZILA  
DIST. CHANDPUR.**

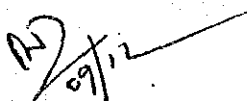
Sl. No.	Name of Bazar	Location	Remarks
1	2	3	4
1.	Kachua Bazar.	Kachua (I) U.P.	Growth centre Bazar.
2.	Sachar Bazar.	Sachar U.P.	-do-
3.	Rahimnagar Bazar.	Chhat (I) U.P.	-do-
4.	Fakirbhai Bazar.	Sahadabpur (I)	-do-
5.	Dagat Bazar.	Sachar U.P.	
6.	Sauraj Bazar.	Sachar U.P.	
7.	Faghail Bazar.	Sachar U.P.	
8.	Farkota Bazar.	Fathair (I) U.P.	
9.	Kachimpur Bazar.	Fathair (II) U.P.	
10.	Mitara Bazar.	Mitara U.P.	
11.	Mridyachha Bazar.	Mitara U.P.	
12.	Nandipur Bazar.	Sahadabpur (II) U.P.	
13.	Kamarnagar Bazar.	Sahadabpur (II) U.P.	
14.	Fatepur Bazar.	Sahadabpur (II) U.P.	
15.	Singalia Bazar.	Kachua (II) U.P.	
16.	Khidda Bazar.	Kachua (II) U.P.	
17.	Ojani Bazar.	Kachua (II) U.P.	
18.	Kachumathpur Bazar.	Kadla U.P.	
19.	Colbair Bazar.	Kadla U.P.	
20.	Chornohani Bazar.	Kadla U.P.	
21.	Karbhogonj Bazar.	Kadla U. .	
22.	Honohargan Bazar.	Karaiya U.P.	
23.	Kalua Bazar.	Karaiya U.P.	
24.	Chandpur Bazar.	Karaiya U. .	
25.	Darua Bazar.	Karaiya U.P.	
26.	Baranpur Bazar.	Karaiya U. .	


Contd.....P/2.

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27. Bihar Bazar:	Gohat (B) U.P.
28. Aynagiri Bazar:	Gohat (B) U.P.
29. Moujan Bazar:	Gohat (B) U.P.
30. Bhajuria Bazar:	Gohat (B) U.P.
31. Ashrafpur Bazar:	Ashrafpur U.P.
32. Jaganpur Bazar:	Ashrafpur U.P.
33. Madhigacha Bazar:	Ashrafpur U.P.
34. Tulpai Bazar:	Sahadobpur (B) U.P.

  
 07/12/89  
 Upazila Engineer,  
 Kachua, Chandpur.

  
 07/12  
 Upazila Nirbahi Officer,  
 Kachua, Chandpur.

  
 07/12/89  
 Chairman,  
 Upazila Parishad  
 Kachua, Chandpur.

**STATEMENT SHOWING THE PARTICULARS OF PROPOSED INVESTMENT WORKS  
UNDER JAWAHR AID AT KODURU THAMILA  
DIST. CHENNAI.**

**NAME OF SECTION :- ELECTRIFICATION WORK**

Purpose.	Description of works	No.	Rate per unit	Estimated cost (Approximately) (In Rs.)	Remarks
1	2	3	4	5	6
Planned Benefit to the Public.	Extension of Electrification of 12 Unions.	12 Nos Unions	Rs. 300.00 per Union	Rs. 3600.00 per Union	
<b>Total Rs.</b>				<b>3,600.00 Rs</b>	

*(Signature)*  
Special Engineer  
Koduru, Chennai.

*(Signature)*  
Special District Officer  
Koduru, Chennai.

*(Signature)*  
Charities  
Special District  
Koduru, Chennai.



**STATEMENT SHOWING THE PARTICULARS OF PROPOSED DEVELOPMENT WORKS  
UNDER JAPANESE AID AT KACHUA, UPADIA  
DIST. CHANDPUR.**

**USE OF MOTOR :- GENERAL AFFAIRS.**

Purpose.	Description of work.	Mos	Rate per unit	Estimated Cost (Approximately) (in Rs)	Remarks
1	2	3	4	5	6
For Public Cultural Function.	Const. of Auditorium	3 Mos	@ Rs. 100.00 Lac	Rs. 300.00 Lac	
For Games & Sports.	Const. of Stadium at Upadia Head Quarter.	1 Mos	@ Rs. 100.00 Lac	Rs. 100.00 Lac	
				<b>Total Rs. 400.00 Lac.</b>	

*(Signature)*  
Upadia Engineer  
Kachua, Chandpur.

*(Signature)*  
Upadia District Officer  
Kachua, Chandpur.

*(Signature)*  
Chairman  
Upadia Parishad  
Kachua, Chandpur.



## 資 料 編

### (3) 現地収集資料

#### (3)－2 ナビナガル ( Nabinagar )





PRESIDENT SECRETARIATE  
OLD SANGSAD BHABAN  
DHAKA.

UPAZILLA PROFILE  
(ORIGINAL FORM)

As On: 9-7-89-----

1. General Information

1.1. Division :- Chittagong .

1.2. District :- Brahmanbaria.

1.3. Upazilla :- Nabinagar .

1.4. Boundary (N-E-S-W ) :- N-Brahmanbaria, E- Kasba,  
S-Muradnagar, W- Narsingdi. &  
B. Rankin,

1.5. Distance of Upazilla  
From Zilla Sadar (Km) :- 19 Km.

1.6. No. of Unions :- 21.

1.7. No. of Villages :- 225.

2. Land.

2.1. Area (Sq. Km.) :- 375 Km.

2.2. Agriculture Land (Acres) :- 72,400.

2.2.1. Cultivated Area :- 72,000.

2.2.2. Single Cropped Area :- 19,000.

2.2.3. Double Cropped Area :- 43,000.

2.2.4. Triple Cropped Area :- 10,000.

2.2.5. Fallow Land Area :- 400.

2.2.6. Irrigated Area :- 31,416.

2.3. Khas Land Area :- 2062.98

2.4. Forest Area (Acres ) :- Nil.

2.5. Vested Property

2.5.1. No. of Vested property Cases:- 228.

2.5.2. No. of Vested  
Property Cases disposed :- 222.

2.5.3. No. of Vested property Cases  
pending before the court :- 06

3. Population

3.1. Male (Including Children) :- 1,81,365

3.2. Female (Including Children) :- 1,73,814

3.3. Muslims :- 3,16,675

3.4. Non-Muslims :- 38,504

3.5. Tribals :- Nil

3.6. No. of Fertile couples	: - 58,255
3.7. Education	
3.7.1. Male	: - 35,607
3.7.2. Female	: - 18,453
4. Health Service	
4.1.No. of Hospitals	: 1
4.2.No. of Beds	: 31
4.3.No. of Doctors	: 13
4.4.No. of Nurses	: 4
4.5.No. Of Patients who have been attended by	: 45,901
4.5.1.Preventive Measures	: 22,863
4.5.2.Curative Measures	: 23,038
4.6.No. of Non Govt.Doctors	:
4.6.1.MBBS	: 1
4.6.2.IMFS	: 3
4.6.3.Homeopaths	: 155
4.6.4.Village Doctors	: 45
4.6.5.Kabirajes	: 23
4.7.Population Control	
4.7.1.No. of Family Planing Clinics	: 7
4.7.2.Sterilization Target (this year)	: 1308
4.7.3.Sterilization Achieved (till date)	: 649
4.7.3.1.No. of Cases of Vesectomy	: 6
4.7.3.2.No.of Cases of Ligation	: 643
4.7.4.IUD Target (this year)	: 2004
4.7.5.IUD Achieved (till date)	: 783
4.7.6.Other Methods Target (this year)	: 4267
4.7.7.Other Methods Achieved (till date)	: 1157
(* Other Methods includes-	
-Oral Pill	: -37000
- Condom	
-Emce	: 2,23,675
-Foam Tablet)	: X

## 5. Educational Institutes

5.1.No.of Colleges	:	2
5.2.No. of High Schools	:	25
5.3.NO. of Primary Schools	:	162
5.4.No. of Madrashas	:	31
5.5.No. of Maktabas	:	556
5.6.No. of Vocational Institutes	:	x
5.7.No. of Other Training Centres	:	1

## 6. Communications

### 6.1.Road (in Km)

6.1.1.Pucca Road	:	4.02
6.1.2.Kutcha Road	:	446.98
6.2.3.No. of Bridges/Culverts	:	88/117

### 6.2.River (in Km)

6.2.1.Navigable the round year	:	90
6.2.2.Navigable in Monsoon	:	105

### 6.3.Rail

6.3.1.Mileage (in Km)	:	x
6.3.2.No. of Stations	:	x

### 6.4.Transports

6.4.1.Cars	:	x
6.4.2.Trucks	:	x
6.4.3.Buses	:	40
6.4.4.Auto-Rickshaws	:	x
6.4.5.Rickshaws	:	460
6.4.6.Mechanised country boat	:	215
6.4.7.Carts country boat	:	7950

## 7. Agriculture

### 7.1.Annual Production (M. Tons)

7.1.1.Paddy	:	60,388
7.1.2.Wheat	:	8,964
7.1.3.Potato	:	3,893
7.1.4.Jute	:	5,178
7.1.5.Cotton	:	x
7.1.6.Mustard	:	4,588
7.1.7.Sugarcane	:	x
7.1.8.Dal	:	2,250
7.1.9.Tea	:	x

### 7.2.Production Areas (Acres)

7.2.1.Paddy	:	94,200
7.2.2.Wheat	:	10,865
7.2.3.Potato	:	935
7.2.4.Jute	:	6,425

7.2.5.Cotton	:	X
7.2.6.Mustard	:	13,595
7.2.7.Sugarcane	:	X
7.2.8.Dal	:	5,470
7.2.9.Tea	:	X
7.3.Main Prod. Items (top three)	:	Paddy, Jute, Wheat.
7.4.Foodgrain Storage Godown		
7.4.1.No. of C.S.D.	:	X
7.4.2.No. of L.S.D.	:	2
7.4.3.No. of Cold Storage	:	X
7.4.4.Total Capacity (M. Tons)	:	100
7.5.Input and Services		
7.5.1. No. of Fertiliser	:	
7.5.2. Distribution centres	:	Nil
7.5.2.No. of Fertiliser Godown	:	1
7.5.3.No. of Seed Godown	:	X
7.6.Irrigation		
7.6.1. DTWs	:	45
7.6.2. STWs	:	61
7.6.3. LLPs	:	570
7.6.4. MOSTI	:	12
7.6.5. Others	:	X
7.6.6. No. of Approved Irrigation Schemes	:	96
7.6.7. No. of Rivers and Canals Suitable for Irrigation	:	16
7.6.8. Arerly Rainfall (inches)	:	81.06
7.7.Agricultural Loan		<u>Figure in Round Thousand</u>
7.7.1.Amount Sanction for Last year (Taka)	:	TK11147
7.7.2.Amount Disbursed for Last year (Taka)	:	TK8843
7.7.3.No. of Farmers received Loan Last year (Taka)	:	TK2090
7.7.4.Amount Sanctioned f or this year (Taka)	:	TK18866
7.7.5.Amount Disbursed till date (Taka)	:	TK18866
7.7.6.No. of Farmers received <del>the</del> =ate Loan till date.	:	4256
7.7.7.Total outstanding till end of Last year.	:	TK40063
7.7.8.Against Last year outstanding total collection till date.	:	5580

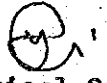
7.8.	Debt Settlement		
7.8.1.	Total No. of Cases Taken	:	X
7.8.2.	No. of Cases Resolved	:	X
8.	POST & TELECOMMUNICATION		
8.1.	No. of Post Offices	:	34
8.2.	No. of Telegraph Offices	:	1
8.3.	No. of Telephone Exchanges	:	3
8.4.	No. of PCOs	:	2
9.	LIVESTOCK		
9.1.	No. of Cattle heads	:	93,850
9.2.	No. of Poultry farm	:	X
9.3.	No. of Artificial insemination centres	:	1
9.4.	No. of Vateriaary Hospitals	:	1
10.	FISHERIES		
10.1.	No. of Ponds/dighi		
10.1.1.	Used for Fisheries	:	3009
10.1.2.	Not Used for Fisheries	:	366
10.2.	No. of Jalmahals	:	68
10.3.	No. of Nursery Ponds	:	X
10.4.	No. of Fishery Farms	:	X
10.5.	Any other Fishery Areas	:	X
10.6.	Yearly Fish Production ( In quintals)	:	18,000
11.	FOREST		
11.1.	Nerseries in nos.	:	
11.1.1.	GOVT	:	1
11.1.2.	Non-Govt.	:	2
11.2.	No. of sapplings planted during the last tree plantation season under supervision of Upazila Parishad.	:	2,000
12.	COTTAGE INDUSTRIES AND OTHERS		
12.1.	Industries with Electricity		
12.1.1.	No. of Industries	:	106
12.1.2.	No. of Personnel Employed	:	353
12.1.3.	No. of Households with Cottage Industries.	:	106
12.2.	Industries without Electricity	:	
12.2.1.	No. of Industries	:	667
12.2.2.	No. of Personnel Employed	:	2,625
12.2.3.	No. of Households with Cottage Industries.	:	592
13.	CO-OPERATIVES		
13.1.	No. of KSS	:	246
13.2.	No. of Co-operatives	:	404

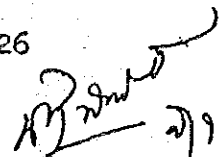
13.3.	No. of Women Co-operatives	:	8
13.4.	No. of UCMPs	:	18
13.5.	No. of Fishermen	:	
	Co-operatives	:	38
13.6.	No. of Weavers	:	
	CO-operatives	:	50
13.7.	No. of other CO-operatives	:	45
13.8.	No. of societies in TCCA	:	420
14.	BANKS		
14.1.	No. of Nationalised Bank	:	16
14.2.	No. of Pvt. Bank	:	X
14.3.	No. of Foreign Banks	:	X
15.	REGULATORY SERVICES		
15.1.	PS and ADPC'S	:	
	(Police Post)	:	1-1
15.2.	BOP's	:	X
15.3.	Ansar and VDP units	:	9735
15.4.	No. of case entry	:	221
15.5.	No. of unsettled case	:	180
16.	TRADE AND COMMERCE		
16.1.	No. of big hats and bazar	:	10
16.2.	No. of trade associations	:	1
17.	SOCIAL WELFARE		
17.1.	No. of villages under rural	:	
	Welfare Project	:	48
17.2.	No. of social projects	:	
	in hand.	:	732
17.3.	No. of Orphanages	:	5
17.4.	No. of Vagrants/Beggars	:	725
17.5.	No. of NGO	:	X
	17.5.1 Local NGO	:	2
	17.5.2. Foreign NGO	:	1
18.	REVENUE		
18.1.	No. of Tahsil Office	:	16
18.2.	Total demand of land	:	
	revenue (last year).	:	12,04,603
18.3.	Total collection against	:	
	land revenue (last year)	:	11,41,679
18.4.	Total revenue outstanding	:	
	till end of last year.	:	40,109
18.5.	Total collection against	:	
	outstanding till date.	:	3,71,213
18.6.	No. of sub-registry office	:	1
19.	GOVT. EMPLOYEES		
19.1.	Sanctioned Strength	:	
	19.1.1 First Class	:	28

19.1.2. Second class	:	14
19.1.3. Third class	:	1258
19.1.4. Fourth class	:	130
19.2. Present Strength		
19.2.1 First class	:	21
19.2.2. Second class	:	14
19.2.3. Third class	:	1128
19.2.4. Fourth class	:	70
20. <u>FLOOD CAMPS</u>		
20.1. No of Camps	:	X
20.2. Total Peoples	:	X
Provide capacity	:	X
21. <u>RATIONING</u>		
21.1. No of GRC dealer	:	12
21.2. No of peoples getting ration.	:	16641
22. <u>CLUSTER VILLAGES</u>		
22.1. No of villages	:	X
22.2. No. of families rehabilitated.	:	X
22.3. Total area in cluster villages (in acres).	:	X
23. <u>BUDGET</u>		
23.1. Fund Allocation	:	X
23.1.1. Health Service.	Rs	88,06,742.20
23.1.2. Education	Rs	3,48,130
23.1.3. Communication	:	X
23.1.4. Agriculture	Rs	19,75,500
23.1.5. Post & Tele-Communication.	:	X
23.1.6. Livestock	Rs	3,54,000
23.1.7. Fisheries	Rs	1,58,505.54
23.1.8. Forest	:	X
23.1.9. Cottage Industries.	:	X
23.1.10. Co-Operatives	Rs	1,72,859.90
23.1.11. Social Welfare	Rs	3,46,713.90
23.1.12. Relief & Rehabilitation	Rs	1,01,287.06
23.1.13. Others	Rs	11,82,808.10
23.2. <u>EXPENDITURE (till date)</u>	:	
23.2.1. Health Service	Rs	75,52,367.30
23.2.2. Education	Rs	3,11,093.73



23.2.3. Communication	৳ 18,65,908.30
23.2.4. Agriculture	X
23.2.5. Post & Tele- Communication	৳ 2,78,826
23.2.6. Livestock	৳ 1,21,933.57
23.2.7. Fisheries	X
23.2.8. Forest	X
23.2.9. Cottage Industries	৳ 1,72,608.88
23.2.10. Co-operatives	৳ 3,25,592.11
23.2.12. Social Welfare	৳ 72,024.83
23.2.12. Relief & Rehabili- tation	৳ 11,51,718.50
23.2.13. Others	
24. WAOF STATE	
24.1. Area in acres	70.50
24.2. Total income	1,15,000
24.3. Number	
24.3.1. Mosques	400
24.3.2. Graveyard	170
24.3.3. Eidgahs	106
24.3.4. Educational Institution	31
25. IMPORTANT PERSONS	
25.1. Name of U.P. Chairman	Md. Ziaul Huque Sarkar.
25.2. Name of U.N.O.	Rafiqul Islam.
25.3. Name of M.P.	Alhaj Kazi Anwar Hossain.
26. OTHERS	
26.1. No. of Electrified village	39
26.2. Gas connection (km Ø)	X
26.3. No. of the fire brigades	X
26.4. No. of public libraries/Reading room	1
26.5. No. of Cinema halls	X
26.6. No. of deptt. rest house	1
26.7. No. of Parks	2
26.8. No. of hand-pumps for drinking water	2,971
26.9. Historical Importants and Tourist attractions.	X
26.10. No. of Helipad	1
26.11. No. of Community Centre	21
26.12. No. of Kazi office	21
26.13. No. of Bio-gas-plant	X
26.14. No. of Vulnerable Group Feeding.	726

 9.7.84  
 Statistical Officer.

  
 Upazila Nirbahi Officer.

Basic Information:  
Nabinagare Upazila  
&  
Nabinagare UCCA Ltd.

1. Area of the Upazila: - 375
2. Population - 3,55,179  
    Mali: - 1,87,365  
    Lcuali: - 1,73,874
3. No. of vill - 225,
4. No. UPS - 24
5. No. house holds: - 60,834
6. Agree - 44733, Fisherman - 2540,  
    Blacksmith - 502,  
    Landless - 1473, others - 10,409.  
    (Bethaheen - 11,882)
7. No. of 165
8. Littracy - Male - 35%, Female: 15%
9. Cultivable land: - 74,250.00 aerec
10. The cultivable land: - 15,200.00 aeres
11. High land - 17,100 aeres
12. Loas land - 50,200.00 acres
13. No. DTW - 27. Commissioned - 1,  
    Covered area - 2160 acres
14. LLP.: - 417  
    BRDB - 8  
    Covered area - 290 acres
15. Main crops: - Lice, Juli, wheat, mustered seed
16. No. of KSS - 357, Members - 10,148  
    No. of Villa - 208
17. No. BSSs - 50, Members - 1419  
    No. MBSSs - 13, Members - 314  
    No. of
18. No. of KSS loan received - 201

NABINAGAR UCCA LTD.  
NABINAGAR, BRANMARIBARIA

Statement of

SL. No.	Name of the	Furd Received	
1.	BR	= 6.25,627/-	=6,03,155
2.	FWER(ILO)	= 1,02,384/-	=1,06,237/- 1 - 3624/-
3.	RD-2 (Training)	= 1,31,080/-	=1,17,980/- Nil
4.	RD-2 (RPP)	= 2,81,047/-	=1,96,116/- 9 - =17300/-
5.	IDA-DTW-2	= 500/-	= - 1 - LD cometta office
6.	UNICEF - CD Project.	= 40,000/-	21,259/- 4 - 6,800/-

# Loan & Accounts

- (a) Total loan disbursed - (ST) - 1,00,62,850/- Realised - 90,86,993/- outstanding - 9,75,857/-
- (b) Advances (employees) 33,862/- others - 38,017/-
- (c) Total share - Deposit = 5,37,590/- share Purchased - 1,05,620/-
- (d) Total savings - =10,64,130/-
- (e) Total Deposit in Bank - 21,51,150/-
- (f) Fixed Deposit - 16,81,867/-
- (g) Audit - - up-to-date
- (h) A.G.M. - do



## 資 料 編

### (3) 現地収集資料

#### (3)－3 パンチャランプル

( Bancharampur )



LIST OF CANAL REQUIRED TO BE RE-EXCAVATED.  
UNDER BANCHARAMPUR UPAZILA.  
DIST. BRAHMANBARIA.

Sl.No	Name of Canal with location	Length in mile	Specification
*.1.	Shalfa khal under Rupashdi (east) U.P.=2.5 miles K-1.		$\frac{40' + 20'}{2} \times 6'0''$
2.	Kathakhali khal under Bancharampur(N), Dariadaulat(W) K-2.	6.00 "	$\frac{30' + 16'}{2} \times 3'0''$
3.	Dulbanga River under Bancharampur(N) Dariadaulat(W) & (E) U.P. K-3.	8.00 "	$\frac{45' + 20'}{2} \times 6'0''$
4.	Muraderkhal under Dariadaulat(E) & Pahariaknadi (x K-4.	4.50 "	$\frac{35' + 15'}{2} \times 4'5''$
5.	Dariakandi bara khal. under Saifullahkandi(E) U .P .K-5.	2.50 "	$\frac{30' + 15'}{2} \times 3'0''$
6.	Hossainpur Khal. under Salimabad U.P. K-6.	3.00 "	$\frac{25' + 12'}{2} \times 3'6''$
7.	Mandalia khal under Salimabad & Saifullahkandi(W) U.P. K-7 .	3.00 "	$\frac{30' + 12'}{2} \times 3'6''$

*Signature*  
9/12/60  
এস-সহকারী প্রকৌশলী  
এল, ডি, ই, বি,  
বান্দার: নপুর বি-বাড়ীয়া

*Signature*  
উপ-জেলা প্রকৌশলী  
বাহারামপুর, ব্রাহ্মনবাড়িয়া

*Signature*  
A. W. M. Abdul Haq, Ph. D.  
Chairman  
Bancharampur Upo Zilla  
Dist. Brahmanbaria



Existing Road with Cross section of Metalled, Semi Metalled &  
and Earthen Road under Bancharampur Upazila, Dist.-B.Barua.

S1. No.	Name of Existing Road	Metalled (Mile)	Semi Metalled (Mile)	Earth on Rd. (Mile)	Total Miles	Cross Section Top	Bot.	Height
1.	Honna-Maricha Road(R.-1)	Nil	Nil	14	14	10	27	5
2.	Salingonj-Kariakandi(R.2)	Nil	Nil	12	12	8	25	5
3.	Bancharampur-Nabinagar Road(Bancharampur Per.(R.3)	Nil	Nil	12	12	11X	27	6
4.	Bancharampur-Datiachar(R.4)	Nil	Nil.	7	7	8	23	5
5.	Ujanchar-Dariachar-Bahor-char Road(R.-5).	Nil	Nil	7	7	7	22	5
6.	Bashgari-Durgapur(R.-6)	Nil	Nil	4	4	5	14	3
7.	Bahadurpur-Gokulnagar(R.-7)	Nil	Nil	5	5	6	18	4
8.	Bancharampur-Kalainagar Lunch-gat Road.(R.-8).	Nil	Nil	5	5	6	18	4
9.	Jobangonj Bazar-Bishnarampur-Road.(R.9).	Nil	Nil	5	5	7	19	4
10.	Bishnarampur-Jaikalipur Road via Akanagar(R.-10).	Nil	Nil	8	8	6	18	4
11.	Ulukandi-Pahariakandi Road (R.11)	Nil	Nil	5	5	6	18	4
12.	Shalimabad-Junarchar Road(R.12).	Nil	Nil	12	12	6	18	4
13.	Charlahani-Purbahaty Road via Guaratoli(R.-13).	Nil	Nil	6	6	6	18	4
14.	Fardabad-Junarchar.(R.-14)	Nil	Nil	4	4	5	14	3
15.	Kalainagar Lunchgat-Rupasdi Road(R.-15)	Nil	Nil	4	4	5	14	3
16.	Rupasdi-Burberia(R.16)	Nil	Nil	5	5	7	19	4
17.	Rupasdi-Ashrafbad(R.17)	Nil	Nil	6	6	7	19	4
18.	Sarifpur-Paratuli Road(R.18)	Nil	Nil	6	6	8	23	5
19.	Sunarampur-Shantipur Road	Nil	Nil	6	6	6	18	4
20.	Barakandi -Jaikalipur Lunchgat Road(R.20)	Nil	Nil	4	4	5	14	3
21.	Darikandi-Gokulnagar Road via Imamnagar Road(R.21)	Nil	Nil	4	4	5	18	4
22.	Bahorchar South para-Bahor-char Road(R.22)	Nil	Nil	2	2	5	14	3
23.	Rupasdi-Kharupur(R.23)	Nil	Nil	2	2	6	18	4
24.	Hossainpur Road(R-24)	Nil	Nil	3	3	7	19	4

*Signature*  
১৭/১১/১৯৮০

*Signature*  
A. W. M. Ph. D.

*Signature*  
উপ-ডেপুটি প্রকৌশলী  
বাহারামপুর, ব্রাহ্মণবাড়িয়া

LIST OF THE BRIDGE AND CULVERTS REQUIRED TO BE  
CONSTRUCTED UNDER BANCHARAMPUR UPAZILA? DIST. D.BARIA.

S1. No.	Name of the road on which the Bridge/ culverts required to be constructed.	Location	Type proposed	Span required in ft.
1.	Hemna-Maricha road(R-1)	1. Radhanagar	R.C.C. Box	20
		2. Radhanagar Bara Ana.	R.C.C. Bridge	120
		3. Budhaikandi	.do.	<del>222</del> 200
		4. Krishnanagar	-do-	80
		5. Ujanchar	.do.	30
		6. Bancharampur near Holipad.	-do-	40
		7. Bancharampur near Conoma Hall .	-do-	120
		8. Kadamtali near Ex-M.P's house	.do.	50
		9. Kadamtali Maidya para.	-do-	25
		10. Kadamtali near graveyard.	-do-	50
		11. Tatuakandi	-do-	30
		12. Marichakandi over beolpara khal	-do-	70
2.	Salimgonj-Karaiakandi road(R-2).	1. Joynagar over patnibari khal	-do-	25
		2. Akanagar	-do-	20
		3. Akanagar	-do-	20
		4. Over Latia khal in between Akanagar and pahariakandi.	-do-	59
		5. Paharia kandi(East side)	-do-	20
		6. Pahariakandi over kumuria beol.	-do-	120
		7. Barakandi over Bara bhangti	-do-	40
		8. Sutki kandi	-do-	20
		9. Sutki Kandi	-do-	25
		10. Kadamtali	-do-	20
		11. Kadamtali	-do-	20
		12. Sonarampur near Sonaram- Bazar .	-do-	<del>122</del> 150
		13. Sonarampur	-do-	20
		14. Sonarampur	-do-	20
		15. Dasani near Sundar Ali's house.	-do-	25
		16. Eastern side of Ayubpur	-do-	20
		17. Western side of Ayubpur	-do-	20
		18. Sayani over Sayani khal	-do-	80
		19. Sayani west para khal	-do-	100
		20. Kanainagar near pry. school	-do-	40

3. Bancharampur-Nabinagar Road(R-3)	1. Over Titash River at Bancharampur	Caisson foundation	4500
	2. Salimabad near Salimabad Bazar	R.C.C. Bridge	80
	3. Ashrafabad near Kazi-bari.	-do-	80
	4. Mirpur over Mirpur khal.	-do-	275
	5. Bholanagar	-do-	20
	6. Bahadurpur	R.C.C. Box	12
	7. -do-	-do-	12
	8. -do-	-do-	12
	9. North side of Jibangonj bazar over Maziara khal.	R.C.C. Bridge	120
4. Bancharampur-Dairarchar (R-4)	1. Bancharampur	R.C.C. Box	20
	2. Shafirkandi	-do-	25
	3. -do-	R. C.C. Bridge	60
	4. Manaikhali	-do-	50
	5. -do-	-do-	120
	6. Khskandi	-do-	40
	7. -do-	-do-	25
	8. Northside of Dairarchar bazar	-do-	25
5. Ujanchar-Baherchar road via Dairarchar with a link road up to Mayarampur (R-5).	1. Ujanchar near khejur bhagan.	R. C.C. Box	15
	2. Kalayanpur	R.C.C. Bridge	100
	3. South side of Dairarchar bazar.	-do-	60
	4. Manikpur	R.C.C. Box	12
	5. Manikpur near pry. school.	" bridge	100
	6. Manikpur Ferry ghat	" "	150
	7. Kanainagar over Kanainagar khal.	" "	100
	8. West side of Baherchar over Baherchar khal	" "	80
	9. West side of Baherchar bridge	" "	35
	10. Ulukandi	" "	25
	11. Mayarampur over Mayarampur khal.	" "	49
6. Bashgari-Durgapur road(R-6).	1. Bashgari near Bashgari south pry. school.	R.C.C. Bridge	20
	2. Bashgari chak.	" "	50
	3. Padmapur	" "	20

7. Bahadurpur-Gakulnagar road (R-7)	1. Khalla over Khalla khal R.C.C. bridge		100
	2. Khalla near Alimpir's house.	"	25
	3. Krishnanagar	"	1200
	4. Darikandi near the Mosque.	R.C.C. Box	20
	5. Darikandi easterside of chowdhuri bari.	" Bridge	25
8. Bancharampur-Kalainagar road (R-8)	1. Asadnagar north side	" "	60
	2. Kalainagar	" "	8 0
9. Jibangonj bazar-Bishnarampur road (R-9)	1. Over Titash River	Gai son foundation	350
	2. Ashar Nagar	R.C.C. Box	18
	3. Over Bishnarampur khal	R.C.C. Bridge	40
	4. Bishnarampur	R.C.C. Box	1 5
10. Bishnarampur-Joykalipur road (R-10)	1. Akanagar	R.C.C. Bridge	30
	2. Joynagar	"	30
	3. Joykalipur near modquo	"	40
	4. Joykalipur near Buru miah's house	R.C.C. culvert	15
	5. Joykalipur near Eidgah	"	15
11. Ulukandi-Paharia-kandi road (R-11)	1. Ulukandi near pry school.	RCC bridge	40
	2. Ulukandi near Mosque	RCC Box	18
	3. Paharia-kandi near Osman Miah's house	"	18
	4. Paharia kandi near Bazar	"	18
	5. Paharia-kandi over murador khal	RCC bridge	100
12. Salimabad-Junarchar road (R-12)	1. Salimabad	RCC Box	18
	2. Satvila	RCC Bridge	100
	3. Satvila	-dp-	80
	4. Satvila	RCC Box	18
	5. Kamalpur	RCC Bridge	50
	6. -dp-	-do-	50
	7. Paikarchar	RCC Box	18
	8. Haidernagar	-do-	18
	9. Haidornagar	RCC Bridge	100
	10. Tatuakandi	-do-	50
	11. Tatuakandi	RCC Box	18
	12. Over Baluanadi	RCC Bridge	150
	13. Burburia chak	RCC Box	18
	14. -do-	-do-	15
	15. -do-	-do-	18
	16. Junarchar	-do-	1 8

13. Charlahania-Purbahati road(R-13).	1. Charlahania	RCC Box	15
	2. Purbahati near Karmakar bari	RCC Bridge	40
	3. Purbahati near Doctor Ansar Ali's house.	-do-	60
	4. Purbahati near Bogbari	RCC Box	18
	5. Purbahati near Eidgah	-do-	18
	6. Purbahati near pry.school	-do-	18
	7. Purbahati	-do-	18
	8. Purbahati southpara	RCC bridge	40
	9. Gaoraltuli	RCC Box	18
	10. Gaoraltuli near mosque	RCC Bridge	100 Ø
	11. Tilaknagar	RCC Box	15
14. Fardabad-Unarchar road(R-14)	1. Fardabad near R&H Road	RCC Bridge	40
	2. Fardabad near A. Sarker's house.	-do-	40
	3. Fardabad near Graveyard	RCC Box	18
	4. Junarchar over Junarchar canal-1	RCC Bridge	60
	5. Junarchar over Junarchar canal-2	-do-	70
	6. Junarchar over Junarchar canal-3	-do-	75
15. Kalainagar launch ghat to Rupashdi road(R-15)	1. Titash River	Caisson foundation	450
	2. Bholanagar	RCC Bridge	25
16. Rupasdi-Durburia road. (R-16)	1. Rupasdi near south bazar Eidgah	RCC Box	18
	2. Rupasdi near south para pry. school.	-do-	18
	3. Rupasdi chak	-do-	18
17. Rupashdi Asrafbad Road. via Hoglekanda & Pathamara.	1. Near Titu bash i House	RCC Bridge	40'
	2. Near Sholu Miah house at Rupashdi.	RCC box o cul.	15'
	3. Rupashdi Hannan Miah 's house	RCC Bridge	40
	4. " Jagabandhu house	-do-	25'
	5. " south side of A. Hashom's	" RCC Cul.	15'
	6. " " " " Graveyard	RCC Bridge	80'
	7. Near Hoglekanda Pry. School	RCC bridge o	60'
	8. Over Gelachipa khal	-do-	100'0"
	9. Over Pathamara khal	-do-	80'
	10. near Pathamara <del>xxxx</del> Grav. Cul.		18'
	11. At Pathamara Chalk.	-do-	15'

( Cont. . . .5)

18. Sharifpur ferry ghat to Paratali road(R-18)	1. Over Titash River	Caisson foundation bridge	400
	2. Fatchpur over Fatchpur bool khal	RCC Bridge	100
	3. Saifullakandi	RCC Box	18
	4. North side of Paratali	-do-	15
	5. Paratali Maidya para.	-do-	15
	6. Paratali East para	-do-	15
	7. Paratali over Mandalia khal	RCC Bridge	150
19. Sonarampur-Santipur road(R-19).	1. North side of sona rampur	RCC Box	18
	2. Sonarampur over Maricha khal	RCC Bridge	100
	3. Dulrampur	RCC Box	18
	4. -do-	-do-	18
	5. Santipur over Isha khari	RCC Bridge	100
	6. Santipur over Simanar khal	-do-	30
	7. Santipur maidyapara near sibu miah's house	-do-	30
	8. Santipur south side of pry. school.	-do-	25
	9. Kanai nagar near Madrasa	-do-	50
	10. Kanai nagar souyh side of pry. school	-do-	50
	11. Charamariona kandi near Masque	-do-	25
	12. Dularampur near Jahar Miah's house	-do-	60
	13. Dularampur near Mengal miah's house	-do-	25
20. Barakandi-Jeykali pur road(R-20)	1. Barakanda Bara Banga	-do-	30
	2. Kalakanda south para	-do-	25
	3. Kalakandi near Masque	RCC box Cul.	15
	4. Kalakandi kumaria khal.	RCC Bridge	100
	5. Kalakandi East para	-do-	15
	6. Jaykalipur over Murader khal	RCC bridge	800
21. Darikandi-Gakulnagar Road (R-21)	1. Darikandi over Kazibari khal.	RCC bridge	150
	2. Imamnagar over Imamnagar khal	-do-	1000
	3. Araliachalk.	RCC CUL.	25
	4. Gakulnagar Near masque	RCC bridge	60
22. Bahorchar south para to Bahorchar bazar Road.(R-22)	1. Bahorchar over bara khal	RCC bridge	125
	2. Bahorchar bazar khal	-do-	60

23. Rupashdi-Hawarpur Road.  
R-23 .

1. Rupashdi Ashraf miah house CUL. 15'
2. Halkata khal RCC Bridge 120'
3. Halkata chalk . Cul. 15'
4. Hawarpur village RCC Bridge 30'

24. Hossainpur Road. (r-24)

1. East side of Samandor Ali's house RCC Bridge 50'
2. Hossainpur Lalu miah house -do- 40'
3. Haydornagr Ramizuddin House. -do- 60'
4. " Rabiullah sarkar " -do- 50'

*Signature*  
9/2/69.  
১৭- মহাবারী প্রকৌশলী  
এল. ডি. ই. বি.  
বানছারামপুর বি-বাড়ীয়া

*Signature*  
উপ-জেলা প্রকৌশলী  
বাহারামপুর, বাদিনবাড়িয়া

*Signature*  
A. W. M. A. M. M. Ph. D.  
Chairman  
Bachchanpur Up. Zilla  
Dist. Brahmanbaria.

LIST OF COLLAGE, HIGH SCHOOL, JUNIOR HIGH SCHOOL, MADRASHA ETC.  
UPAZILA- BANCHARAMPUR, DIST- BRAHMANBARIA.

SL NO.	NAME OF INSTITUTION	NAME OF UNION PARIASAD
1.	BANCHARAMPUR DEGREE COLLEGE	BANCHARAMPUR (NORTH) U.P
2.	DARIKANDI TAJUL ISLAM COLLEGE	SAYFULLA KANDI ( EAST) U.P
	<u>HIGH SCHOOL</u>	
1.	TEJKHALI UNION HIGH SCHOOL	TEJKHALI UNION
2.	KALAKANDI ASMATANESA HIGH SCHOOL	PAHARIA KANDI UNION
3.	MORICHA KANDI D.T. ACADAMY HIGH SCHOOL	DARIADAULAT (EAST) UNION
4.	DARIA DAULATH A.G. HIGH SCHOOL	DO
5.	DARAI KANDI BADDA ASMATANESA HIGH SCHOOL	SAYFULLA KANDI(EAST) UNION
6.	SHA-RAHAT ALI HIGH SCHOOL	SAYFULLA KANDI(WEST) UNION
7.	BANCHARAMPUR S.M. PILOT HIGH SCHOOL	BANCHARAMPUR (NORTH) UNION
8.	BANCHARAMPUR PILOT GIRL'S HIGH SCHOOL	DO
9.	HAJI OMAR ALI HIGH SCHOOL	DO
10.	FARDABAD HIGH SCHOOL	RUPASDI ( EAST) UNION
11.	RUPASDI BINDABON HIGH SCHOOL	RUPASDI ( WEST) UNION
12.	UJANCHAR K.N. HIGH SCHOOL	UJANCHAR ( EAST) UNION
13.	KHALLA JUNIOR HIGH SCHOOL	SAYFULLAKANDI (EAST) UNION
	<u>MADRASHA</u>	
1.	BANCHARAMPUR SENIOR MADRASHA	BANCHARAMPUR (NORTH) UNION
2.	DARIKANDI SENIOR MADRASHA	SAYFULLA KANDI ( EAST) UNION
3.	FARDABAD SENIOR MADRASHA	RUPASDI (EAST) UNION
4.	BAKHAR NAGOR JUNIOR MADRASHA	DARIADAULAT (EAST) UNION
5.	CHARLAHANIA JUNIOR MADRASHA	RUPASDI (EAST) UNION
6.	CHAR MANIK PUR JUNIOR MADRASHA	UJANCHAR ( WEST) UNION

*Aslam*  
 ( MD. ABDUL HAKIM )  
 UPAZILA EDUCATION OFFICER  
 BANCHARAMPUR, BRAHMANBARIA.



LIST OF EDUCATION INSTITUTIONS

UPAZILA BANCHURAMPUR, DIST-B. BARIA.

SL. NO.	NAME OF GOVT. PRY. SCHOOL	NAME OF UNION PARISAD
1.	HASAN NARAR GOVT. PRY. SCHOOL	TEJKHALI U.P
2.	TEJKHALI (EAST) DO	DO
3.	BAHERCHAR DO	DO
4.	BISINURAMPUR DO	DO
5.	TEJKHALI ( WEST) DO	DO
6.	GUTKANDI DO	DO
7.	AKANAGAR (SOUTH) DO	DO
8.	AKANAGAR (NORTH) DO	DO
9.	JOYKALIPUR DO	PAHARIKANDI U.P
10.	DOMRAKANDI DO	DO
11.&	PAHARIKANDI DO	DO
12.	KALAKANDI (NORTH) DO	DO
13.	ULUKANDI DO	DO
14.	MARICHAKANDI DO	DARIADAULAT U.P (EAST)
15.	BAKHARAGAR DO	DO
16.	NUTAN KADAMTALI DO	DO
17.	KADAMTALI (NORTH) DO	DO
18.	KADAMTALI DO	DO
19.	D/PI/D/ULAT (NORTH) DO	DO
20.	DARIADAULAT (SOUTH) DO	DO
21.	KALAINAGAR DO	DO
22.	ASADNAGAR (EAST) DO	DO
23.	ASADNAGAR (WEST) DO	DO
24.	SINTI PUR DO	DARIADAULAT (WEAST) U.P
25.	CHURMARICHU KANDI DO	DO
26.	DULARAMPUR DO	DO
27.	SONARAMPUR DO	DO
28.	MADHYA SONARAMPUR DO	DO
29.	CH/R SIBPUR DO	DO
30.	IMAM NAGAR DO	SAYFULLA KHANDI ( EAST) U.P
31.	GAKUL NAGAR DO	DO
32.	DARIKANDI (MADHYA) DO	DO
33.	DARIKANDI (WEST) DO	DO
34.	KHALLA DO	DO
35.	BAHADURPUR DO	DO
36.	DOMRAKANDI DO	SAYFULLA KANDI ( WEST) U .P
37.	MADHYA NAGAR DO	DO
38.	KANCHAN PUR DO	DO
39.	BELA NAGAR DO	DO
40.	P/R/TALI (EAST) DO	DO

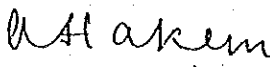
SL NO.	NAME OF GOVT. PRY. SCHOOL	NAME OF UNION P/RTSAD
41.	PARATALI (WEST) GOVT. PRY. SCHOOL	SAYFULLA KANDI (WEST) U.P
42.	D/RISEBELA NAGAR DO	DO
43.	FATEHA PUR DO	DO
44.	DASH DONA DO	BANCH/RAMPUR (NORTH) U.P
45.	J/GANATH PUR DO	DO
46.	DURGARUM PUR DO	DO
47.	THANA COLCONEY DO	DO
48.	BANCH/RAIPUR DO	DO
49.	SAFIR KANDI DO	DO
50.	DURGAPUR DO	DO
51.	KHIS KANDI DO	DO
52.	BIHAVANATH PUR DO	DO
53.	BAUSH G/RI DO	BANCH/RAIPUR (SOUTH) U.P
54.	RAYUB PUR DO	DO
55.	CHARCHAYANI DO	DO
56.	KANAINAGAR DO	DO
57.	NAGARIR CHAR DO	DO
58.	KHASN/UR DO	DO
59.	FARDABAD(NORTH) DO	RUPASDI (EAST) U. P
60.	FARDABAD( M/DHYA) DO	DO
61.	FARDABAD( SOUTH) DO	DO
62.	PURBAHATI DO	DO
63.	PURBAHATI(MADHYA) DO	DO
64.	NIJKANDI DO	DO
65.	KALA KANDI (SOUTH) DO	DO
66.	RUPASDI ( NORTH) DO	RUPASDI ( WEST) U. P
67.	RUPASDI ( MADHYA) DO	DO
68.	RUPASDI ( SOUTH) DO	DO
69.	RUPASDI ( WEST) DO	DO
70.	UGLA KANDI DO	DO
71.	MIR PUR DO	SALIMABAD U.P
72.	ASHRAF BAD DO	DO
73.	SALIM/BAD DO	DO
74.	HAIDAR NIGAR DO	DO
75.	SATBILA DO	DO
76.	PATKER CHAR DO	DO
77.	TATUA KANDI DO	DO
78.	DURHURIA DO	DO
79.	JHUNUR CHAR DO	DO
80.	KHAG KANDA DO	DO
81.	PATIA ME/RA DO	DO

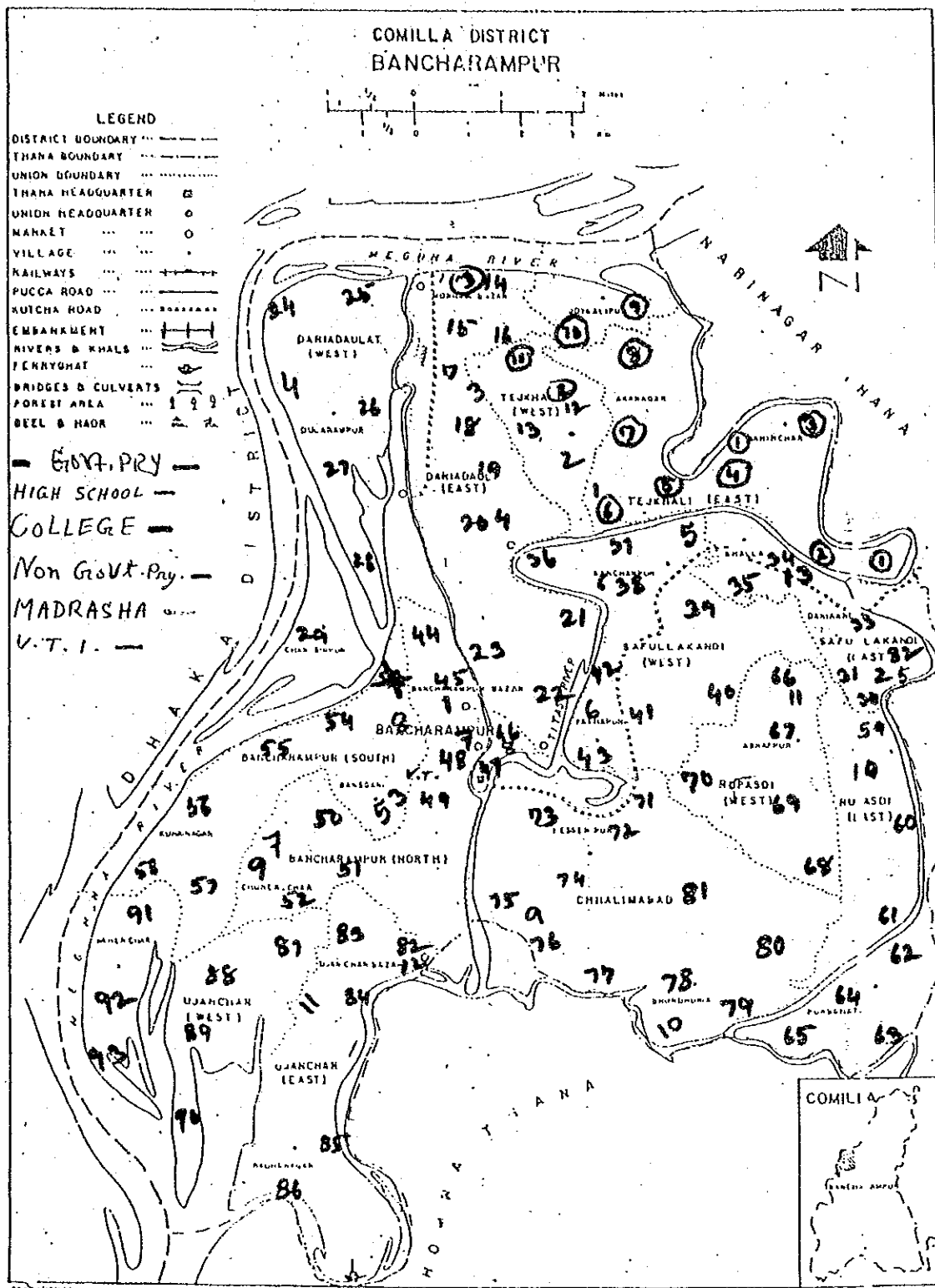
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SL NO.	NAME OF GOVT. PRY. SCHOOL	NAME OF UNION PARISHAD
82.	UJAN CHAR GOVT. PRY. SCHOOL	UJANCHAR ( EAST) U. P
83.	SCKER KANDI + DO-	DO
84.	BUDHAR KANDI DO	DO
85.	RADHA NAGAR DO	DO
86.	KALIKA PUR DO	DO
87.	KALLAYAN PUR DO	UJANCHAR ( WEST) U. P
88.	CHAIR MANIK PUR DO	DO
89.	ULU KANDI DO	DO
90.	MATA RAMPUR DO	DO
91.	BAHER CHAR (NORTH) DO	DO
92.	BAHER CH/R (SOUTH) DO	DO
93.	BAHER CHAR (WEST) DO	DO

LIST OF NON-GOVT. PRY. SCHOOL

1.	MINSHI N/G/E NON-GOVT. PRY. SCHOOL	TEOKHALI ( EAST) U.P
2.	PAHARIA KANDI DO	DO
3.	KADAMTALI ( MADHYA) DO-	DARIADULTEH (EAST) U.P
4.	YADUPUR YADUPUR	DARIADULTEH (WEST) U.P
4.	ICHA PUR DO	SAYFULLA KANDI ( WEST) U.P
5.	MADHYA NAGAR DO	DO
6.	SARIF PUR M.T DO	BANCHURAMPUR (NORTH) U.P
7.	KHOS KANDI DO	BANCHURAMPUR ( SOUTH) U.P
8.	DHASUNI DO	SALIMABAD U.P
9.	KOMALPUR DO	DO
10.	GONJA NAGAR DO	UJANCHAR ( EAST) U.P
11.	SORISER CHAR DO	

  
 ( MD. ABDUL HAKIM )  
 UPAZILA EDUCATION OFFICER  
 BANCHURAMPUR, BRAHMANBARIA.



MD. ABDUL HAKIM  
 UPAZILA EDUCATION OFFICER  
 BANCHARAMPUR, B. BARIA

1. Date of Coun  
No. of progr  
a) Main sche  
b) RD - 2  
c) IDA DTW  
d) Unicef c.s.  
e) Warness programme
2. No of Society: 341  
a) KSS. 257  
b) BSS. 55  
c) MSS 29
3. No of  
a) KSS. 10555  
b) BSS 2552  
c) MSS 1079
4. Share deposit: - 796912  
a) KSS - 684180  
b) BSS - 63347  
c) MSS 49.385
5. Saving deposit: - 1165301  
a) KSS - 896721  
b) BSS - 153783  
c) MSS - 114797

6. Loan Issue: 15274725
  - a) KSS - 135.67925
  - b) BSS - 10.58300
  - c) MSS - 648500
7. Loan realise: 10838513
  - a) KSS - 99.10.288
  - b) BSS - 648500
  - c) MSS - 279725
8. Loan outstanding: ~ 4435912
  - a) KSS - 36.57.637
  - b) BSS - 4.09.800
  - c) MSS - 368475
9. Irrigation equipment dis
  - a) DTW. 67
  - b) STW. X
  - c) DT - 1



## 資 料 編

### (3) 現地収集資料

#### (3)-4 シャハラスティー (Shahrasti)





SHAHRASTI UCCA, CHANDPUR AT A GALANCE,

REGD.NO.173 Dt.10-5-82.

1. Society Formation:- 185
  - i) KSS- :- 153
  - ii) BSS - :- 17
  - iii) MSS - :- 15
2. Member enrolled :- 3,649
  - i) KSS. :- 3046
  - ii) BSS - :- 358
  - iii) MSS - :- 245
3. Share collection :- 5,08,797/= *TK 10 /year*
  - i) KSS - :- 4,57,502 /=
  - ii) BSS - :- 29,020/=
  - iii) MSS - :- 22,275/=
4. Savings Collection:- 8,62,446/= */weekly*
  - i) KSS - :- 7,11,202/=
  - ii) BSS - :- 92,418/=
  - iii) MSS - :- 58,826/=
5. Loan investment :- *Credit → Women - handicraft*
  - S.T.Loan - :- 66,55,750/=
  - Realisation- :- 44,92,768/= *loan - repayed*
  - Due - :- 21,62,982/= *not yet repayed.*
6. BSS Loan *Landless*
  - Investment- :- 7,56,400/=
  - Realisation - :- 5,61,699/=
  - Due - :- 1,94,701/=
7. MSS Loan. *Women*
  - Investment - :- 4,07,000/=
  - Realisation- :- 2,32,945/=
  - Due - :- 1,74,055/=

ON GOING PROJECTS (BSS)

No. of Scheme.

1. Mini Mechanic/Repairing workshop	1
2. Rickshaw	5
3. Live stock for Milk production	3
4. Beef fattening	3
5. Pond Fisheries	2
6	

MBSS

1. Sewing machine	3
2. Livestock milk production	5
3. Beef Fattening	2
4. Rice Husking	1

1. No. of DTW	20
2. No. of IMP Scheme	10

1. Term Loan	7.09.000/-
2. Realisation	1.09.000/-

*Atmaram*  
10/11/89  
Rural Dev. Officer,  
Shahrasti UCCA, BRDB,  
Shahrasti, Chandpur.

UPAZILA PARISHAD, SHAHRASTI,  
CHANDPUR.

A. General Information:-

1. Creation of New Thana from Hajigonj Thana	:- On 13.3.78.
2. Declaration of Upazila - <del>isoproduct</del>	:- On 1.8.83.
3. Area -	:- 156 S.K.M.
4. Number of Union -	:- 9 Nos.
5. Number of Village -	:- 175 Nos
6. Number of Family -	:- 22,315 Nos
7. Population -	:- 1,56,399 Nos(1981Gen.)
8. Male -	:- 75,573 Nos.
9. Female -	:- 80,826 Nos.
10. Density -	:- 1002 P/SQ.K.M.
11. Muslim -	:- 1,46,327 Nos.
12. Non Muslim -	:- 10,072 Nos.
13. Educated person -	:- 33.85%
14. Bank -	:- 9 Nos.
15. Mosque -	:- 258 Nos.
16. Temple -	:- 5 Nos.
17. Mazar -	:- 2 Nos.
18. Badgha -	:- 30 Nos.
19. Grave yard -	:- 104 Nos.
20. Post Office -	:- 26 Nos.
21. Telegraph Office -	:- 1 No.
22. Telephone Exchange -	:- 1 No
23. P.C.O. -	:- 1 No.
24. No of Hut -	:- 10 Nos.
25. No of Bazar -	:- 7 Nos.
26. No of Orphanage -	:- 3 Nos.
27. Thakshil Office -	:- 8 Nos.
28. Sub Registry Office -	:- 1 No.
29. No of Helipad -	:- 1 No.
30. No of Community <del>Office</del> Center Cum U.P. Office	:- 5 Nos.
31. Rail Station -	:- 3 Nos.
32. No of family welfare center -	:- 9 Nos.
33. No of Electrified village -	:- 65 Nos.
34. Small Industries -	:- 70 Nos.
35. No of Krishak samabay somity -	:- 153 Nos.
36. No of Co-Operative -	:- 194 Nos.
37. No of B.S.S	:- 17 Nos. (Cont-2)
38. No. of M.S.S	:- 15 Nos.

B. Communication :-

1. R & H Road -	:- 2 Nos. (7 Miles)
2. Rail line -	:- 1 No. (8 Miles)
3. Upazila Road -	:- 36 Nos. (119.5 Miles)
4. Bridge Constructed -	:- 44 Nos.
5. Culvert Constructed -	:- 332 Nos.
6. Cannel -	:- 11 Nos. (45 Miles)
7. River -	:- 1 No. (11 Miles)

C. Education :-

1. College -	:- 3 Nos.
2. High School -	:- 23 Nos.
3. Junior High School -	:- 3 Nos.
4. Primary School -	:- 70 Nos. Govt. 9 Nos. Non Govt.
5. Madrasa -	:- 40 Nos.
6. Maktab -	:- 185 Nos.
7. Vocational Institute -	:- 2 Nos.
8. K.G. School -	:- 2 Nos.
9. Feeder School -	:- 25 Nos.

D. Agriculture :-

1. Agricultural Land -	:- 29605 Acres .
2. Cultivated Area	:- 29313 "
3. One Crops Land-	:- 7986 "
4. Two Crops Land-	:- 18,396 "
5. Three Crops Land -	:- 2931 "
6. Irrigation Area -	:- 4600 "
7. Deep Tub-Well -	:- 49 Nos.
8. Shallow Tub-Well -	:- 1 Nos.
9. Low lift pump -	:- 90 Nos
10. Food grains Godown -	:- 2 Nos.
11. No of G.R.C. Dealer -	:- 8 Nos.
12. Agricultural main products yearly-	:-
a. Paddy -	:- 31278 M.T.
b. Wheat -	:- 1207 M.T.
c. Potato -	:- 1635 M.T.
d. Jute -	:- 450 M.T.
e. Mustard oil Seed -	:- 432 M.T.

(Cont-3).

E. Live stock & fishery :-

1. Artificial In Simination Centre :-	:-	2 Nos.
2. Cattle -	:-	50410 Nos.
3. Goat -	:-	5020 Nos.
4. Sheep -	:-	703 Nos.
5. Cock & Hen -	:-	109260 Nos.
6. Duck -	:-	44830 Nos.
7. No of pond & Dhigbi -	:-	7027 Nos.
8. No of Jal Mohad -	:-	20 Nos.
9. No of Fisherman -	:-	250 Nos.

F. Health :-

1. No of Family Welfare centre :-	:-	9 Nos.
2. No of Fertile couples -	:-	19746 Nos.
3. No of Tub-Well -	:-	1622 Nos. Govt.
4. No of Tub-Well -	:-	1242 Nos Non Govt.
5. No of Sanitary latrine -	:-	2046 Nos.

Communication:-

Name of road.	Carpetting	H.B.B	Kaccha	Road length in m.	mark
1. Hossain Ahmed road:-	2	3	7	12	
2. Shampur paranpur road:-	0.20	.80	6	7	
3. Waruk-Zabepur road-	-	-	8	8	
4. Mehar lotra road-	-	-	8	8	
5. Nawabpur-panchail road-	-	-	12	12	
6. Shahid Anwar Hossain road-	4	-	1.5	2.50	
7. Dehela-Zadabpur road-	-	-	2.5	2.50	
8. Shahid Abul kashem road-	-	-	2.50	2.50	
9. Nonia-Manipur road-	-	-	3.00	3.00	
10. Hatpar-Zadabpur road-	-	-	2.00	2.00	
11. Barua-Ragai road-	-	-	3.50	3.50	
12. Manipur-Ugaria road-	-	-	1	1	
13. Gagatpur Rampur road:-	-	-	3	3	
14. Chitoshi manipur road-	-	-	2	2	
15. Noringpur-Ferua road-	-	-	2	2	
16. Panchail-Gagatpur road-	-	-	5.5	5.50	
17. Chitoshi-Sonapur road-	-	-	4.50	4.50	
18. Gulpura-Khorda Ferrighet road-	-	-	4.50	4.50	
19. Moutabari-Doshua road-	-	-	2.00	2.00	
20. Shibpur-Debkara road-	-	-	2.00	2.00	
21. Shorshak-Ragai road-	-	-	1	1	
22. Chitoshi-Chandpur road-	-	-	1.50	1.50	
23. Manipur-Kadra road-	-	-	2.50	2.50	
24. Kalibari Bishara road-	-	-	1.50	1.50	
25. Nagpan-Boldigi road-	-	-	3.00	3.00	
26. Taralia-Khorda road-	-	-	4.00	4.00	
27. Kakairtola-Mehergoda road-	-	-	2	2	
28. Dahura-Suchipara road-	-	-	2.50	2.50	
29. Thakurbazae-Road	-	-	1.50	1.50	
30. Khaila-Bernia road-	-	-	2.00	2.00	
31. Khorda-Shahab bazar road-	-	-	1.00	1.00	
32. Shahrasti gate-Bhatnikhola road-	-	-	1.50	1.50	
33. Hossainpur-Balshid -ohangaachal road-	-	-	1.50	1.50	
34. Manipur-Dhigpara via lotra road-	-	-	1.50	1.50	
35. Upalata-baniacho road-	-	-	1.50	1.50	
36. Ullashor-Raysree via gagatpur road	-	-	1.00	1.50	
	3.20	3.80	112.50	119.50	

## RIVER AND CANALS.

River :- Dakatia River :- 11 Miles .

Canal :-

A) Noringpur Canal - :- 5.00 Miles.

B) Regai bedl Canal - :- 4.50 "

C) Mehar Gada Canal - :- 5.00 "

D) Kaithora Canal- :- 4.50 "

E) Poranpur Canal - :- 3.00 "

F) Regurempur Canal- :- 3.00 "

G) Shoail khal - 5- 5.00 "

H) Narayanpur Canal- :- 5.00 "

I) Pathair Canal - :- 3.00 "

J) Basupara Canal - :- 3.00 "

K) Noraha Canal - :- 4.00 "

[illegible]

Total:- 45.00 Miles.



EDUCATIONAL INSTITUTE.

A) College :-

1. Meher College .
2. Suchipara College.
3. Chitoshi College.

B) High School :-

Tanta:-

1. Tanta
2. Waruk .
3. Ichapura.

Raysree(N).

4. Unkila

Raysree(S)

5. Berniya.
6. Khila.
7. Bejoypur.
- Meher(N) 8. Suapara.
9. Bariachho.
10. Nara.
11. Meher.
- Meher(S) 12. Shahrasti.
13. Nizmehar.
14. Debkara.
15. Nagan.
- Suchipara(N) 16. Suchipara.
17. Shorshak.
- Suchipara(S) 18. Ragai.
19. Norringpur.
- Chitoshi(E) 20. Chitoshi.
- Chitoshi(W) 21. Ugaria.
22. Kharihar.
23. Aynatali.

C) Junior High School.

1. Zadebpur.
2. Noagan.
3. Dhamra.

D) Primary School:-

- Tanta. 1. Muragan.
2. Bolshid.
  3. Hossainpur.
  4. Changachal.
  5. Ishapura.
  6. Ichapura Jukta.
  7. Waruk.
  8. Alipur.
  9. Dopalla.
  10. Ajagora.
  11. Kulshi.
  12. Tanta.

- Meher(N) 13. Badia.
14. Shupara.
  15. Baniach.
  16. Kakairtola.
  17. Nowra.
  18. Upalata.
  19. Karkanta.
  20. Batnikhola.
  21. West Upalata.

- Meher (S) 22. Nizmeher.
23. Shahrasti.
  24. Pathapur.
  25. Malra.
  26. Debkara.
  27. Noagan.

- Raisree(N) 28. Ullashar.  
29. Chandipur.  
30. Raisree.  
31. Unkila.  
32. Khampar.
- Raisree(S) 33. Bernia.  
34. Khila.  
35. Khila bazar.  
36. Ahamed Nagar.  
37. Nahara.  
38. Bijoy pur.  
39. Ghurcha ~~pur~~ *Chup*  
40. Raghun ~~pur~~ *pur*
- Suchipara(N) 41. Suchipara.  
42. Suchipara jukta.  
43. Varura.  
44. Dhamra.  
45. Chairara.  
46. Shorshak jukta.  
47. Shorshak.
- Suchipara(S) 48. Ragai Shishu mangal.  
49. Ragai.  
50. South ragai.  
51. Logra.  
52. Keshranga.  
53. Naringpur.  
54. Ferua.
- Chitoshi(E) 55. Monipur.  
56. Chitoshi.  
57. Panchail.  
58. Kadra.  
59. Baratula.  
60. Shampur.  
61. Tatvirshar.
- Chitoshi(W) 62. West kharihar.  
63. Kharihar.  
64. Ugaria.

65. Ainatoli.
66. Nunia.
67. Daimra.
68. Pathair.
69. Noapara.
70. Shimail.

E. Non Govt. Primary School:-

1. Lakanta.
2. Nuipa.
3. Dikdair.
4. Harairpara.
5. Shurshai.
6. Krishnapur.
7. Noagana south.
8. Dehasree karpurenessa.
9. Atakra karpurenessa.

Amokhin  
10.12.89  
চেয়ারম্যান  
উপজেলা পরিষদ  
শাহরাস্তি, টাঙ্গুর।

W. R. S.  
উপজেলা প্রকৌশলী  
শাহরাস্তি, টাঙ্গুর।

SHARASTI UPAZILA

Development grant and expenditure from 1983-84 to 1988-89.

Financial Year.	Development grant amount.	Expenditure Amount.	Balance Amount	Completed Project.	Remarks.
1983-84	Tk. 30,00000/=	Tk. 4,72,782/=	Tk. 25,27,218/=	51	Balance carried over to next financial year.
1984-85	Tk. 38,65000/=	Tk. 39,73,816/=	Tk. 24,18,402/=	35	"
1985-86	Tk. 39,07,500/=	Tk. 48,04,703/=	Tk. 15,21,199/=	80	"
1986-87	Tk. 29,79,954/=	Tk. 30,92,092/=	Tk. 14,09,061/=	30	"
1987-88	Tk. 41,29,000/=	Tk. 27,73,136/=	Tk. 27,64,925/=	64	"
1988-89	Tk. 14,43,000/=	Tk. 41,79,732/=	Tk. 28,192/40	79	"
1989-90	Tk. 10,84,000/=	T			
	Tk. 2,04,08,454/=	Tk. 1,92,96,261/=	Tk. 11,12,193/=	339	

*Ambarish*  
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আবুল কালাম  
মুন্সি, ঠাকুর।

*W. R.*  
10.12.89  
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মুন্সি, ঠাকুর।

## 資料編

### (4) プロジェクトアウトライン (参考用)



## PROJECT OUTLINE

1. Project Title : Integrated Development Program for the Rural Poor.
2. Project Sponsor: GRAM UDYOG, House No. 38 A, Road 6 A, Dhanmandi R/A, Dhaka-9, Bangladesh.
3. Project Area : a. Four selected pilot areas (first phase).  
b. Whole of Bangladesh (second phase).
4. Clientele : Rural poor, specially the unemployed persons.
5. Project Objectives: The project has three basic objectives of
  - (a) upgradation of life-style of the rural poor through income generation,
  - (b) creation of a chain of economic activity through "Trickle-up" effect, and
  - (c) helping the clients to have access to the socio-economic services provided by various agencies. Objectives in detail are enumerated below :
    - a. Creation of employment ;
    - b. Designing income generating enterprises appropriate for the clients;
    - c. Development of products - both traditional and non-traditional - based on local raw materials and skills, and through introduction of new skills and technology;
    - d. Creation of demand for goods and services at the local, metropolitan and foreign markets through establishment of a marketing chain and dissemination of marketing information;
    - e. Creation of income for and betterment of life-style of the clients;
    - f. Creation of market forces to balance demand and supply situation of goods and services produced;
    - g. Inducement of "Trickle-Up" effect on the economy;
    - h. Arrangement of access for clients to socio-economic services (eg. health, education, family planning, sports and recreation, etc.) provided by the Government and non-Government organizations, and
    - i. Thereby, maximizing utilization of resources.

## 6. Background.

6.1 Bangladesh will have a population of 108 million in 1990 and 127.9 million in 2000 A.D. The labour force is estimated to be 38.7 million in 1990 and 52.8 million in 2000 A.D.. It is estimated that the rural urban population ratio will be 77:23 in 1990 and 67:33 in 2000 A.D. The number of people living below poverty line is 90 per cent in 1983 and no projection is available for 1990 and 2000 A.D.

6.2 Available data on unemployment situation continues to be a guess work. However, the Bangladesh Bureau of Statistics puts the



unemployment figure at 3.7 million in 1980, and projects the same at 13.7 million in 1990 and 27.3 million in 2000 A.D. It will be appropriate to say that the situation is undesirable.

6.3 Irrespective of the spatial distribution of below-the-poverty-liners and the debatable magnitude of unemployment situation it is considered that creation of employment is a national imperative. Unemployment will create conditions for instability, and is likely to disturb the present socio-economic structure.

6.4 A recent study indicates that 110 foreign and numerous local non-government organizations (NGO) are working with the objective of generating income for the poor. These NGOs take up income generating projects as appendices to various sectoral programs (family planning, health care, adult literacy, and some such selfare programs for the socio-economically handicapped clients) that fits into the foreign donors' outfit. Normally, these programs have inadequate relevance to the demand and supply situation. The project design is usually inadequate and project activity is routine.

6.5 When project activity is made relevant to demand and supply situation of products income to the clientele becomes assured. Source of demand for income generating activities (or for any product group) has been identified with income of the bottom 90 per cent of the population, production linkages and marketing arrangements.

6.6 With regard to demand situation commutations indicate that products of primary skill have local market, of secondary skill metropolitan market and of higher skill metropolitan and export market. This means that production of goods and services of any income generating program will have to be designed to meet market demands. To the extent that demand constitutes a major constraint for income generating programs steps are required to be taken to create demands by the large majority of all goods and services generated by any clientele of any sector.

6.7 For creation of assured market product development has to be a major focus of such programs. Products can be developed through upgradation of skill, strict quality control, importation of skill and technology, use of good raw material. New products can also be developed through technical assistance.

6.8 The poor constitutes more than 90 per cent of households in the country. If income of the poor can be raised by any program appropriately designed, a "trickle-up" situation is created to augment

demand on goods and services. The first level of income of the poor is spent on basic needs - minimum requirement of food, cloth, shelter, medicine, etc. The second level of income is spent on higher intake of food, more and better clothes, better houses, medicare, education, and recreation. With each higher level of income life-style gets demanding, and thereby creating a chain of economic activity whereby consumption patterns influence production patterns, and supply situations are taken over by the market forces.

6.9 The "trickle down" effect theory postulates that increase in productivity, irrespective of the sectoral investment or clientele, benefits all income levels through creation of a chain of economic activity. Consumption patterns of higher income groups, and all income groups benefit from all investments. The "Trickle Up" hypothesis seeks to create a reverse situation whereby demand on goods and services can be created through generation of income for the bottom majority. To the extent that higher demand induces more investment and higher productivity, entrepreneurs and traders from higher income groups invest more and more, improves supply situation and through the process creates higher demand on goods and services. When the demand and supply situation reaches an equilibrium the trickling-up effect occurs.

6.10 The GRAM UDYOG seeks to create the "trickle up" effect through intervention in areas outlined in the program objective, specially to

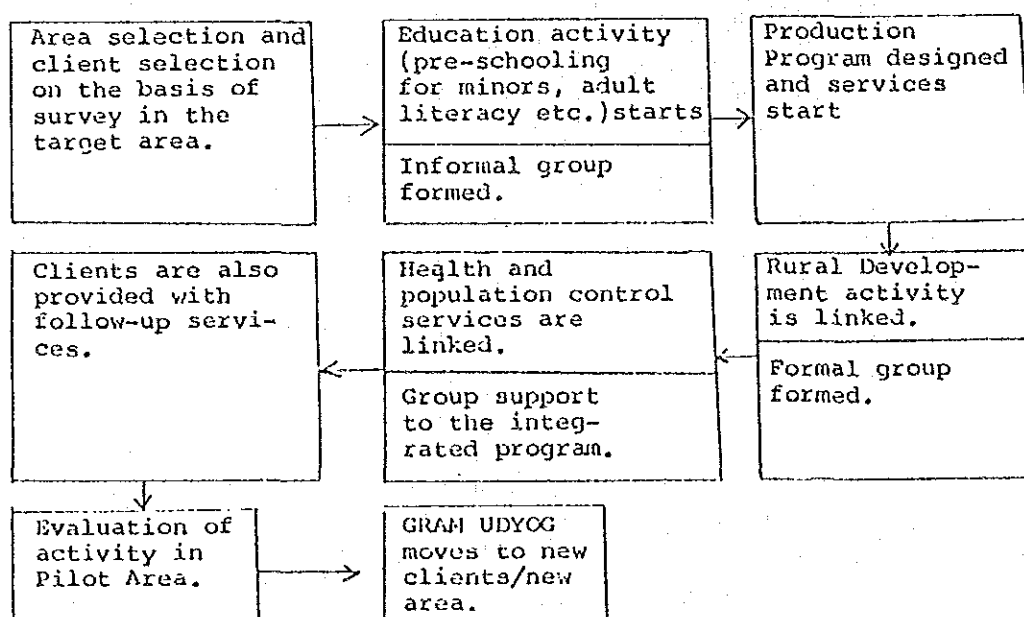
- Design appropriate income generating activities to produce goods and services;
- Create demand for such goods and services at the local, metropolitan and foreign markets through a well-designed marketing arrangement, and creation of a market chain;
- Create income for the clients, and better their life-style;
- Create market forces to take care of demand and supply situation of goods and services produced; and
- Induce "trickle up" effect on the economy.

This will require, to begin with, concentration of program activity specific to limited clients, product-groups, and geographical regions.

6.11 The assumption is that a service delivery system can be designed to (i) create income for the poor, who constitute 90 per cent of the population, through product specific activities, (ii) make intervention for marketing the products at the initial state, and then (iii) allow the market forces to take care of economic activities appropriate to demand and supply situation. The GRAM UDYOG will take up a pilot project, in the first phase to deliver services under this Model.

6.12 The second hypothesis is that resources invested on service delivery for a single package of activity may cost more in terms of overhead expenses. If the activity is restricted to a small clientele in a limited geographical area activities in other sub-sectors can be linked to the Production Program. This is expected to generate highest output with least resource investment. For the purpose, the sponsoring organization, GRAM UDYOG, will create linkage between activities of Education, Population Control, Health, Rural Development, and Non-crop production sub-sectors and work on a single program package. The logic is that literacy program will make clients appreciate better Government policies and programs and hence can make such programs more effective. Education will also help the clients appreciate better services provided by the sponsoring organization. Population Control program will reduce the number of new mouths to feed and new entrants to the labour force, and hence reduce demand on national resources. Health program will provide access to a basic need, and will also create clients' confidence in the Government's development program. Rural development and non-crop production program will generate more employment, create higher income, and better the life-style of the clients. The GRAM UDYOG will also act as 'go-between' between the clients and the service delivery organizations, thus playing the role of 'change agent' for the area. Coordinated activity flow chart showing linkage between sub-sectoral activity is shown below :

Activity Linkage Flow-Chart.



## 7. Project Strategy.

7.1 A key strategy of the program is to provide a package of multi-sectoral services to the target group in an intensive manner- from income generation activity to institutional organization by the clients.

7.2 The clients will first form informal groups on the basis of trade under the production program. They will select their own trade on advice tendered by GRAM UDYOG volunteers.

7.3 The clients will pay at least 5 per cent equity, and the balance 95 per cent of fixed cost will be arranged from financing institutions as loan.

## 8. Project Activity.

8.1 The first activity of the project will be recruitment of office personnel and national level volunteers. The national volunteers will be formed into groups of ten - one Group Leader and nine group members. One group will work in one pilot area. The national volunteers will be helped by local volunteers recruited from the project area. The national volunteers will work anywhere as and when needed. The volunteers will be trained in extension service.

8.2 After the GRAM UDYOG selects the pilot area, a base line survey will be undertaken to find out resource endowments of the area as also demographic profile of clients. On the basis of the survey clients will be formed into informal groups for specific income generating trade/skill.

8.3 In rural areas of Bangladesh general distribution of occupational activities ( as in 1980) indicates that 48 per cent people are engaged in crop production, 31 per cent in non-crop agricultural activities, 5 per cent in industry and the remaining 16 per cent in construction, transport, trade and other services. It is, therefore, necessary to relate the activity plan to the rural economy where most of economic and manufacturing activities are agro-related to meet local consumption patterns. Pattern of non-cropping occupation in the rural areas is indicated below :

Group of Non-Cropping Occupations in Rural Areas					
Group	Non-cropping agricultural activities	Non-agricultural production		Commercial services	Social services.
		Agro- related	Non-agro- related.		
Occupations.	Animal Husbandry fishery forestry	blacksmithy netmaking  Oil food preservation paddy (parboiling husking polishing)	Shoemaking pottery brickmaking  handlooms tailoring carpentry other handicrafts.	Repairing storage petty trade transport domestic service barbers.	education health cooperations civil construction administration.

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GDI : Employment and Income Generation November - 1983

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8.4 Employment can be generated (i) on-farm, and (ii) off-farm . On-farm employment generation potential is higher as can be seen from above occupational distribution. On-farm employment is relevant to the rural sector whereas off-farm activities are related to both urban and rural situation. On-farm activities include direct labour input on land for agricultural production, and higher productivity in the sector. This package of activities deals with crop production, input supply (seed, fertilizer, pesticides, tools and implements, etc.), irrigation facilities (canals, embankments, culverts, pumps.) infrastructure development (roads-bridges, transports, etc.) and processing of agricultural products. Currently infrastructure for agricultural productivity is being developed through irrigation program, Food for Works Program (FWP), and Rural Works Program (RWP). Under these programs, utility services (community facility centres, huts and bazars, etc.) are also being developed. A current thinking is to include maintenance of infrastructure installations within the scope of FWP and RWP.

8.5 These activities of infrastructure development provide employment on temporary basis. As a matter of fact, these temporary wage earning activities had been conceived of as "relief measure" as early as 1946 and are still being considered so.

8.6 Infrastructure development program is convenient to administration. It had been a major source of political patronage distribution. The trickling down effect of FWP and RWP on rural poor is inadequate to the extent that the delivered inputs benefit more the

intermediaries - the rural elites from whom every political party/organization draws cadre and base support. As compared to the intermediaries, the clients for whom the <sup>inputs are</sup> intended get much less. In other words, the trickling down effect is marginal.

8.7 As opposed to temporary employment generation through infrastructure development under RMP and FWP the other component of rural development, that is, production activities have higher potential for permanent employment generation and hence permanent income. This production program can have two components, namely, non-crop and off-farm.

8.8 Non-crop production program can include such activities as animal rearing, backyard poultry farming, fish culture in ponds and other water reservoirs, agro-fish culture (i.e. rearing fish in agricultural land along with crop during monsoons), vegetable growing, plantation of fruit bearing trees, medicinal plants and herbs, etc.

8.9 Off-farm production program can include rudimentary income generation activities, traditional cottage crafts, non-traditional crafts, and modern cottage industry activities based on locally available raw materials and skills, and also through skill development with technical assistance from neighbouring countries. An indicative list of such manufacturing activities is shown in Annex 1.

8.10 In addition to the production programs, the service sector also can absorb a large number of the rural labour force. Such activities can include trades like rickshaw pulling, food vending, and petty trades.

8.11 The clients of the GRAM UDYOG will need various types of assistance in various forms and access to such assistance from various organizations delivering services as shown below :-

<u>Type of Assistance.</u>	<u>Forms of Assistance.</u>	<u>Service Delivery Organizations.</u>
Technical/Production Assistance.	Training for skill development, advice on process, design on products, tools, equipments, machines, quality control, raw material treatment, new product development, etc.	Promotional organizations like Training Institutes, BSCIC, Youth Centres, Womens Affairs Department NGOs, etc.

<u>Type of Assistance.</u>	<u>Forms of Assistance.</u>	<u>Service Delivery Organizations.</u>
Credit	Loans in cash and/or kind for fixed assets and/or working capital.	Commercial Banks, Specialized Banks, Cooperatives, NGOs.
Management Assistance.	Book keeping, accounting, auditing, production planning inventory control, management.	Promotional organizations, mobile workshops, formal and informal meetings, news letters, specialised literature.
Marketing Assistance.	Advice on packaging, selling, market demand, study, raw material procurement, sales and display centres.	Handicrafts centers, Sales and Display centers of GRAM UDYOG, NGOs, Government organisations, etc.
Common Facilities.	Building, workshops, roads, utility services..	Promotional organizations, NGOs, Cooperatives, etc.
Welfare Facilities.	Education, Health, and Family Planning inputs and Relief Measures.	Promotional organizations in public and private sectors.
Rural Institution.	Group formation, group management, cooperatives, Trade Associations.	BRDD, Cooperatives, Department, Social Welfare Department, etc.

8.12 After the selection of trade groups and informal group formation on the basis of trades, the GRAM UDYOG will take up two initial activities simultaneously, namely training for skill development in various trades, and education. This will be done in two daily sessions - the morning session will be in skill development and the evening session in education.

8.13 For training in skill development the concept of cluster formation will govern selection of clients. At least 2 trainees will be selected from each family and at least 10 families will be selected from each village. This will facilitate after-training service delivery and supervision. An attempt will be made to make each village a cluster for a particular craft. However, in non-craft trades at least 2 trainees from the same family will be selected but the number of family for the same trade may depend on the local demand situation.

8.14 The activity package relating to education will have 3 groups of clients, namely children below age 5 for pre-schooling education, children of age group 6 + for making them for admission into secondary schooling schools in classes relevant to the age and level

of education, and finally the adults to be made able to read simple literature. In other words, the objective of this activity will be to make young children fit for admission in schools, to make drop-outs for re-admission in schools, and to make the adults capable of writing simple communication and reading literature written in simple language. The drop-outs and adults will also be trainees in skill development in various trades. This strategy of education program will thus become inter-woven into income generation program.

8.15 After the training of clients in skill development in various trades follow-up services like credit, technical/production assistance, management assistance, marketing assistance and common facilities services will be provided to them. For the purpose assistance from various existing delivery channels will be obtained.

8.16 The GRAM UDYOG will help the clients to have access to various services under different programs for rural poor undertaken by the Government and Non-government organisations. It will help facilitate formation of cooperative societies and/or informal groups among the clients of rural poor program. Institution, building, interest articulation, growth of leadership, group management and service to each other are important outputs envisaged under this package of activities.

8.17 The clients would be provided with medicare and population control services with the purpose to motivate and educate them in using devices for reduction of fertility and upgrading nutritional level. They will also be provided with access to health care. The activities will include delivering nutritious food, delivery of devices and services for fertility reduction, and primary health care measures.

8.18 It is assumed that induction of clients into various components of services designed for the rural poor will make them self-reliant, self-respectful, and organized. They will not need any more services from the GRAM UDYOG. It will then move into new areas and work with new clients.

#### 9. Service Delivery System.

9.1 The GRAM UDYOG would be the change agent for the clients in the activity area. It is a legal entity as an Waqf-i-Lillah Trust



with a group of sponsors, patrons and trustees with well-defined organisational arrangement for management. The deed of trust of GRAM UDYOG is at Annex 2. The GRAM UDYOG will be registered as a non-government organisation with the department of Social Welfare and the External Resources Division of the Government of Bangladesh. The GRAM UDYOG will approach the National Board of Revenue to allow income tax rebate to its donors. The GRAM UDYOG will recruit full time workers and volunteers at the national and local levels. Such volunteers would be recruited from students and social workers. They will be paid subsistence allowance during their working period.

9.2 The GRAM UDYOG will obtain assistance from various service delivery organisations both in the public and private sectors. Resources available with such organisations will be delivered to the clients and for the purpose the GRAM UDYOG will arrive at formal and informal arrangements with such organisations.

9.3 Whenever possible and feasible, the GRAM UDYOG will work as executive/implementing agency of Government organisations and non-government organisations for specific activity under specific programs for specified clients. Such arrangements may be under legal documentation or could even be informal arrangements.

## 10. INPUT

10.1 The GRAM UDYOG will raise fund locally through subscription from philanthropists and Government and Non-Government Organisations, having specific programs for the rural poor. In addition to money, other inputs will also be obtained from various Government and Non-Government organisations.

10.2 The GRAM UDYOG will also approach external donors through the Government of Bangladesh for funding specific rural poor programs. However, one of the most important inputs will be technical assistance from neighbouring countries in the form of master crafts persons and mid-level experts for the purpose of upgrading quality of products or introduction of new products based on local raw materials. Such master craft persons from neighbouring countries will have to come as a team with a mid-level expert as the team leader. Another important technical assistance from abroad will be tools and equipments for upgrading products or for providing better and efficient services.

## 11. MONITORING AND EVALUATION.

The success of the program will depend to a large extent on constant monitoring and evaluation. For the purpose the GRAM UDYOG will have

its own M & E Cell and will work in close cooperation with the local Government Organisations.

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Project designed by Mr. Muhsaad Sirajuddin, at present working as Member-Secretary, National Wages and Productivity Commission, based on a number of his publications. All views are personal to him.

Dhaka, March, 1985.

INDICATIVE LIST OF PRODUCTION  
PROGRAM TRADES.

1. Traditional

- Pottery-domestic brown ceramic items, glazed items, tableware, roof tiles well rings, etc.
- Wood carving;
- Products from Cane, Bamboo, Reed, Straw etc.;
- Sital Pati ;
- Coir Products ;
- Jamdani/Muslin textiles ;
- Tribal textiles, and apparels from such textiles ;
- Nakshi Kantha, Satranji & Handmade Carpets ;
- Shell and mother of pearls products ;
- Brass and Bell metal products ;
- Catachue ;
- Lac and Shellac ;
- Cloth Dolls ;
- Jute products.

2. Non-Traditionsl

- Blacksmithy - agricultural tools and household implements, oxidization & anodization of metals,
- Artificial jewellery ;
- Sheet metal work ;
- Metal Crafts-Door handles, picture frames ;
- Decorative items; accessories for leather goods;
- Carpentry-furniture and other items;
- Wood inlay and mosaic works;
- Plastic products - containers, flowers, shopping bags, dolls etc.;
- Leather products - hand bags, shoes etc.;
- Hide flaying, carcass utilization;
- Batik, screen and block printing ;
- Glass beads, bangles and decorative items ;
- Bee keeping;
- Salt making/processing;
- Rural food processing (gur, fruit, fish and vegetables);
- Garments production;
- Fibres, textiles and related products including Khadi and floor coverings, and textile made-ups,
- Embroidery;
- Medicinal herbs, plants, their collection and processing ;
- Electronics - Assembling of simple items. (e.g. pocket radio).

### 3. Income Generation Activities

#### Food & allied/Agriculture & Forest produce based Industries

- Dhenki (Rice, Chira, Muri) Gur (Palm Gur, Cane Gur).
- Salt production, salt processing, etc.;
- Vegetable growing ;
- Sunflower and growing of aromatic plants ;
- Spice grinding and processing ;
- Ghani oil;
- Bee keeping ;
- Gum extraction - Lac and Sheelac ;
- ↑ Unani/Ayurvedic/Medicinal herbs & plants  
their collection and processing.
- Salted ground nuts ;
- Potato chips, coconut chips, sweetmeats, and  
other Street Food items;
- Other items.

#### Fibres and Textiles related Products & Floor Coverings.

- Handloom products, Silk reeling, spinning, and  
weaving, embroidery, tailoring, knitting, Kanthas,  
Crotchet lace making, Fish net making, Recycled  
wool products.
- Hand knotted jute and wollen carpet;
- Dyeing of yarn;
- Jute ropes ;
- Coir.

#### Animal based/related

- Hide-flaying, goat and cow fattening, poultry-  
and duckery, pisciculture and fish drying, agro-fish  
culture, animal feed, poultry feed, carcass utilization, etc.

#### Cane, Bamboo, Straw and Reed

- Basketry, furniture, fish traps, broom making,  
Mat making, (Sital Pati, Hogla and Mukta Grass)  
Hand fans, toys.

#### Metal work & light engineering

- Blacksmithy, agriculture implements, simple tools  
making, radio and watch repairing.

#### Wood based

- Carpentry-furniture, boats and accessories,  
agricultural and other tools.

#### Chemical and allied Industries

- Wax products, candle making, washing soap  
making, shoe polish making.

4

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Others

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The above list is indicative. It comprises a wide variety of income generating activities. These may be additions to it as other activities - existing or new - are identified as capable of generating income.

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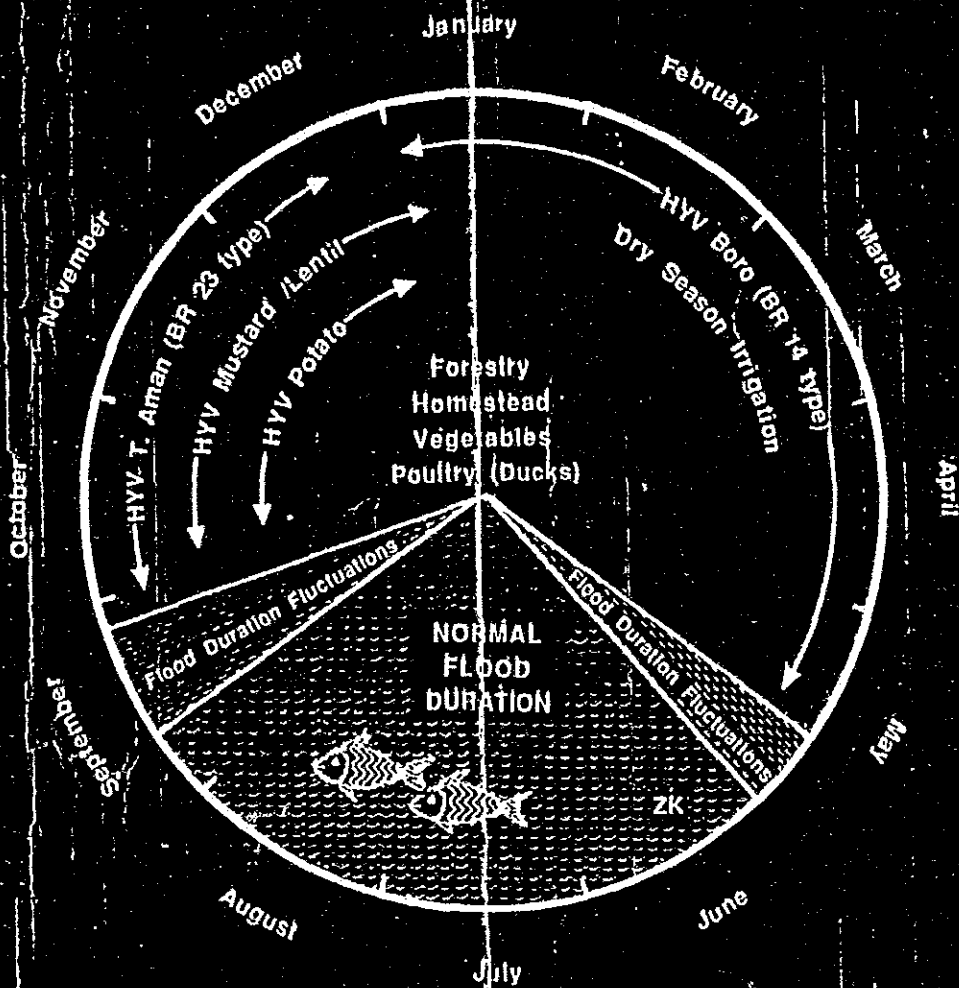
## 資 料 編

### (5) Floodplain Agriculture (参 考 用)





# FLOODPLAIN AGRICULTURE





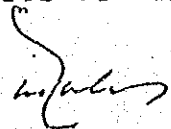
## Foreword

This policy brief is the outcome of a multi-disciplinary discussion forum organised at the Bangladesh Agricultural Research Council. While it is hurriedly drafted, the brief represents a strong note of reservation by an independent group of Bangladeshi scholars with regard to the impact of FCD projects versus other possible interventions on agricultural and fisheries in the floodplains of Bangladesh. It proposes that the transformation of Bangladesh's floodplains from "wetlands" to "drylands" requires more informed scientific and public opinion, particularly in respect of comparative trends in productivity in the various possible sectors of investment.

More specifically, there should be no rush into massive investments in embankment-centred flood control, without more precise consideration of other alternative ways of coping with variable flooding patterns. The full range of the agronomic, economic, social and environmental consequences of massive investments in the floodplain are yet to be fully understood. The group of scientists attending the discussion forum considered the concept of staged developments as espoused in the World Bank document entitled "Bangladesh: Action Plan for Flood Control" dated November 7, 1989, to be inadequate for coping with potential flaws in the embankment-centred schemes. Indeed, should these massive schemes prove relatively unproductive and inefficient because insufficient account has been taken of the indivisibilities & externalities involved, then equally massive investments might be required to rectify much adverse impacts.

Furthermore, to the extent that such investments are to be based on long-term loans requiring the payment of interest, successive generations of Bangladeshis will have thrust upon them the load of the ensuing loan repayments. Public opinion in Bangladesh thus has the incontrovertible right to know and consider the relative costs and benefits of investments in embankments vis a vis alternative means. Policy makers and planners are both accountable to the people of Bangladesh. Such democratic accountability requires public opinion first of all to be educated. Secondly, on this basis, the response of the general public should be sought to ensure that policy making is consistent. This process calls for adequate time rather than rushed judgements.

In sum, this brief is definitive to the extent that it argues for increasing the degrees of freedom to allow choices to be made which are most befitting to the interests of the people of Bangladesh.

  
M. M. Rahman  
Executive Vice Chairman  
BARC

Bangladesh Agricultural Research Council

Section I

HIGHLIGHTS OF THE DISCUSSION  
ON FLOODPLAIN AGRICULTURE

30TH NOVEMBER 1989

- \* The traditional concept of "food" from the floodplain must be redefined away from the restrictive notion of cereals alone, towards other vital components of Bangladesh's diets (as well as livelihoods) which are potentially available from increased floodplain productivity.
- \* In terms of the past track record of securing food and livelihoods in the floodplain, the adoption of HYV\* seeds, fertiliser and minor irrigation have made much greater contributions than FCD\*\* and FCDI\*\*\* projects. These relative contributions should be seen in the context of: minor irrigation covering 2 million hectares or 22% of the net cultivated area whereas FCD covers 2.6 million hectares or 28.7% of the net cultivated area and FCDI only 0.3 million hectares or 1.37% of the net cultivated area.
- \* Available time series data over the last four decades suggest that as more and more embankments have been added in the floodplain, the area flooded during catastrophic floods has, in fact, paradoxically increased (viz. 1954 = 12,000 sq. miles, 1955 = 14,000 sq. miles, 1974 = 20,000 sq. miles, 1987 = 22,000 sq. miles, and 1988 = 30,000 sq. miles - possibly because floodwater has been diverted towards new areas (or, because, natural drainage has been impaired).
- \* Water control structures are ritually justified on supposed cost-benefit grounds in terms of their incremental benefits to agriculture - i.e. "in the name of agriculture". However, such a view is not confirmed by the agronomists actually working in the field of agricultural development.
- \* While embankments might be justified for protecting vital structures such as urban factories and rural infrastructure, this does not detract from the consideration that the performance of FCDs in agricultural development remains insignificant, and as yet unproven in cost-benefit terms even though the benefits may appear deceptively high.
- \* There is a growing apprehension that an attempt is being made, in the name of FCD(I) to transform Bangladesh into "a land without water". However, the issue should rather be how to maximise the use of water at least cost in the different agro-ecosystems of the country. For example, should

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- \* HYV = High Yield Variety.
  - \*\* FCD = Flood Control and Drainage
  - \*\*\*FCDI = Flood Control, Drainage and Irrigation

investments be made to support irrigation with groundwater during the non-flood period, or should they be made to exclude surface water in the flood period? The available evidence to date suggests that expected rates of return which were estimated for FCD(I) projects have not been achieved in practice. For instance, the potential rate of return of 16% which was projected earlier for the Chandpur Irrigation Project is now thought to be of the order of 5%, and the potential rate of return of 24-30% projected earlier for the Muhuri Irrigation Project is now thought to be 10%. Even the rates for FCDI projects estimated earlier are low compared with the potential rates of economic return from groundwater irrigation in the floodplain (e.g. STWs with 211%) or from other surface-water users (e.g. integrated agriculture and fisheries 105%+).

- \* There remains considerable confusion with regard to the different concepts of flooding: normal annual flooding, below normal annual flooding, and the 1988-type catastrophic flooding. It is crucial that a clear distinction be made as to whether planned interventions are to cope with all, some, or any single one of these concepts of flooding. The Achilles heel of the embankment approach is that even with a complete system of walled embankments, it is still impossible to provide effective protection against externally induced, catastrophic coincidences, of flood 'peaks' such as occurred in 1987-88. Floods in Bangladesh are a reality that, in a sense have to be accepted. However such acceptance should be guided by the conscious principle of maximising the benefits and minimising suffering. In fact, abnormally high flood waters actually get inside the massive flood control structures and cannot escape. Hence river training may present a more viable option for coping with flooding. Furthermore, irrespective of flood control structures, early flood warning systems for disseminating information to remote villages and char dwellers should be developed on the basis of existing forecasting systems.
- \* There is considerable concern over the significant 'second generation' problems, which include :

- (i) waterlogging through lack of drainage on the lower land levels, occurring both inside and outside the polders
- (ii) increased flood depths in non-poldered areas
- (iii) downstream siltation and the dying of perennial surface water resources
- (iv) decline in soil fertility inside polders, such as in the Ganges-Kobadak Scheme, because of sulphur and zinc deficiencies and the reduced benefits of potassium and nitrogen formerly deposited from flood-borne blue green algae and flood sediments.

- (v) obstruction and declines of inland water transport, in both actual and potential terms.
- (vi) embankment breaches through river erosion and farmers' actions are common throughout the country and social conflicts often occur over breaches in the shrimp-growing coastal polder areas.
- (vii) farmers with insufficient understanding of new water regimes are unable to adjust to the new farming systems.
- (viii) reduced benefits of floods in terms of pest control like Bandicoot rats (Bandicota bengaliensis) and removal or reduction of fish and prawn nurseries, breeding grounds, and harvest areas in the beels within the FCD areas.

\* The recent history of the Bangladesh floodplain has been one of attempted manipulation of the environment towards proposed ends. However, the full ramifications, as well as the inadvertent agronomic, social, economic and environmental effects of water control structures on other floodplain components, especially fisheries and forestry, have not been often fully comprehended by policy-makers.

\* Historically, for the children of the poor, fish provided the major, if not the only, source of animal protein. The traditional diversity of Bangladesh's aquaculture resources (257 fish species and 20 prawn species) has already been drastically reduced in certain areas as a result of constructing polders and embankments. If this trend continues, both fish and aquatic plant species will be lost altogether. Compensatory hatcheries and nurseries would require considerable additional investments, and could do little to compensate for the loss of the anadromous and catadromous movements of many fish such as the Hilsha and prawns like the Golda Chingree (Macrobrachium rosenberg ii). Structural interventions like the Muhuri Irrigation Project have thus left scores of fishing villages in decay because of the resultant lack of employment in the fisheries sector. Even submersible embankments such as those in Sylhet, despite having considerable benefits, have nonetheless led to the incurrence of environmental costs in terms of depleting the mix of fish resources.

\* Elevated lands such as roads, railways, embankments, ridges and homestead sites within the floodplain, both inside and outside embankments, provide environments with productive options for forestry and horticultural crops. These higher tracts are normally free from flooding during minor floods, and even in the highest floods they are usually flooded later and drained earlier. Such conditions allow a

different mix of vegetables and other crops to be grown - as an additional option - than is possible on lower land levels.

- \* Because surface water is often a common property resource (CPR) which is equally accessible to the poor, rather than being privately owned like land (where access is skewed towards the rich), the productivity of these common property resources (CPRs) has been eroded more than if they had been privately owned. This depletion of CPRs raises a number of problems which are linked to equity issues:

- i) the reduction of harvests from capture fisheries in the Atrai, Sylhet, Gopalganj, and Barisal Basins. These capture fisheries still engage over 50% of members of rural households (farmers, landless) in the lean season.
- ii) the decline in aquatic life, like snails, turtles and clams. These are gathered for subsistence by the poor and they also use them for poultry rearing and lime making.
- iii) the loss of access to the harvesting of aquatic plants by the poor such as reeds and cane for mat-making and furniture
- iv) the loss of water in the form of soil moisture which is necessary for rice production by poor farmers who traditionally augment their nutrition and income by growing local boro near inland water bodies in the dry season in non-irrigated areas.

- \* While the World Bank's "Bangladesh Action Plan for Flood Control" makes patronising references to the valiant "Bangladeshi farmer", the extraordinary heterogeneity within the set of Bangladeshi farmers in terms of their respective resource endowments is smoothly glossed over. Also lost from view are the differences in the suffering from the differential impacts of flooding; the differential access of farmers to the benefits of flood control measures; farmers' differential responses to flooding, as well as the exogeneously determined access to water and ecological reserves, amongst other CPRs. Different types of farmers cope with various natural and/or man-made hazards, whether catastrophic flooding, or below normal flooding, and even drought, with a wide variety of responses. Such differential attitudes and reactions to risks at the micro-level can generate widely divergent 'profit maximising' behaviour on the part of different classes of farmers. These complexities influence macro-level outcomes in terms of conflicting behavioural patterns amongst farmers in the floodplain.

### Recommendations

- \* The discussion forum must express its considered reservations on the directions provided in the document, "Bangladesh : Action Plan for Flood Control" dated November 7th, 1989, to the Government of Bangladesh.
- \* The World Bank should reconsider its report and critique it in the light of the deliberations of the BARC discussion forum, as indicated above.
- \* The World Bank's "Bangladesh: Action Plan for Flood Control" represents a compromise between the UNDP Flood Study and the Eastern Waters Study. It is this sort of compromise which leads to logical discrepancies within the plan document itself. There is thus the need for a new independent review which provides a comprehensive and in-depth comparative analysis of the agricultural, socio-economic and environmental implications of all the available flood reports.
- \* The stages outlined in the Action Plan should involve an added dimension, i.e. regional benchmarking of survival options data aimed at augmenting the resources needed for steady productivity growth by poor rural households.
- \* Issues relating to homestead agriculture, horticulture, and forestry on raised areas, are absolutely crucial to the survival of landless farmers who have no other resources except their own labour and homesteads. These issues should therefore be discussed in the Action Plan since, in a sense, the homestead can function as "a lifeboat during floods".
- \* The whole notion of 'rapid appraisals' and short term 'pilot projects' preceding construction and other interventions are ipso facto most unlikely to capture the entire range of relevant phenomena under consideration. These include possible patterns of flooding, agriculture, socio-economic change, as well as climatic and other environmental shifts. The studies and interventions proposed in the Action Plan are unlikely to be able to capture the whole spectrum of flooding possibilities. On the contrary, what is required is continuous monitoring and reappraisal of the plan, so as to take account of continuous feedback and possible corrective actions whenever necessary.
- \* The need for embankments remains as yet unproven, in the general case. This is also suggested by certain senior-level engineers' reports. However, this does not detract from the merit of embankments in particular areas where there may be location-specific advantages (and disadvantages) of their role in flood control.

- \* As such, it is recommended that consideration of a range of investment options wider than only embankment construction should be continued to be pursued beyond the imminent December meeting in London. No closure of 'final' options should take place at this date or stage. A strong alternative investment priority, avoiding many of the problems inherent in structural approaches, might be to encourage short-maturing, HYV aman rice like the new BR22 and 23 varieties which can be planted in late September when floods (if any) recede, and then be harvested in December.
- \* No physical construction is planned in the Action Plan before 1992. There is thus considerable room for manoeuvre in terms of reconsidering the real investment needs of different types of farmers, as well as other beneficiaries, in the various distinct agro-ecosystems of the floodplains of Bangladesh.
- \* Perceptions of floods and flood control are national rather than partisan issues. Whatever plans and policies are eventually adopted the consequential tax burdens will have to be borne by the common people. Hence, fully participatory discussions encouraging the freedom of a wide spectrum of opinion on flood control issues should be encouraged, prior to the taking of any major decisions.
- \* A realistic pre-investment plan for floodplain agriculture (Section II) must integrate macro-level public decision making (as exemplified in the land water resources model of the Master Plan Organisation (MPO) and micro-level farmer decision making models in different risk prone agro-ecological zones (as should be developed on the Farming Systems Research Sites). Such integration is crucial if floodplain risks are to be overcome and profits maximised.
- \* Knowledge of the water regime should be developed in a rigorous and scientific manner in order to support investments in flood plain agriculture rather than being a fad resulting from the media's portrayal of flooding as particularly affecting critical urban areas, inclusive of residences of the donor community.
- \* Now that the agricultural, socio-economic, and environmental issues have been raised, a team effort with interaction among professionals from the different disciplines involved, including engineers, is called for. Such a step would serve to coordinate research from different perspectives and to bridge the gap between the single-track focus on embankments and its antithetical perspective of only focusing on crops, fisheries and livestock. This interactive team effort might be better able to support improved, and more comprehensive, policy-making for floodplain agriculture.

- \* Meaningful exercises on the comparative rates of return from the whole range of possible mixes of structural and non-structural investments in the floodplain require that evaluation studies be carried out in parallel with such investment activities. Such a procedure would ensure continuous updating of the average and the marginal rates of return over time, as well as in comparative terms.
- \* Special efforts should be made to encourage the much higher rates of return from fish production, or fish-cum-rice production, in the nation's water bodies - reservoirs, canals and rice fields.
- \* Investments to improve productivity within the floodplains should seek to 'relocate' productive activities - e.g. crops, fisheries, and homesteads - in space and time, - such that the effects on the poor of even extraordinary flooding are minimised.
- \* Horticulture on the homestead and other higher land crops provide a large proportion of minor food crops, and offer considerable opportunities if supplied with post-flood support such as vegetable seed supplies.
- \* Geographic information systems (GIS) should be used to simulate possible alternative investment scenarios. For greater sensitivity, such exercises should take account of: the different combinations of cereal output, the non-cereal output, the utilisation of non-market food collection, the non-farm income sources, etc., corresponding to the major floodplain agricultural alternatives, as part of the stages envisaged in the Action Plan.
- \* Research investments in soil-crop-water management, genetic/agronomic manipulation, cropping pattern manipulation, flood water harvesting for the dry season and supplemental irrigation should be made in order to explore options for increasing the low productivity floodplain agroecosystems: (i) tidal floodplains (2.85 mha of NCA); (ii) active young floodplains (0.53 mha); and (iii) flood basins (0.35 mha).
- \* Although the actual hydrological characteristics of other floodplains analogous to those of Bangladesh (e.g. the Mekong, Hwangho, Indus, Euphrates, Mahananda, Chao Phrya, Mississippi, or Rhine) may differ significantly, much may be learned from comparative studies of the responses to flood control actions by different types of farmers' and other beneficiaries. Equally invaluable, could be a comparative understanding of the socio-economic and environmental implications of purposive human interventions in the different floodplains of the world.



# BANGLADESH AGRICULTURAL RESEARCH COUNCIL

## Section II

### FLOODPLAIN AGRICULTURE

#### FOUNDATIONS FOR AN INVESTMENT PLAN FOR AGRICULTURE IN RISK-PRONE ENVIRONMENTS OF BANGLADESH.

Historically civilisations have emerged and flourished on the fertile floodplains of the world such as the Nile, Mesopotamia, Indus, Chinese, Mekong and the Ganges, Brahmaputra, Meghna floodplains. In these floodplains concentrated investments and human effort have aimed at the domination of the hydrological regime for the benefit of agriculture with higher productivity. The rivers and groundwater of the floodplains have been manipulated to provide irrigated agriculture and fisheries. Efforts to impound, deviate and canalise, water channels and water bodies continue to the present day. To the environmental impacts of hydraulic engineering, must now be added the additional hazards of agricultural, domestic, and industrial chemicals. Poorly managed floodplain environments have deprived fisheries of living space and the means to complete their life cycles. Poor management of the resources of the floodplain have left farmers at risk to both floods and droughts. The investment challenge of floodplain agriculture is to maximise the opportunities inherent in the seasonal flood conditions that exist in the Ganges, Brahmaputra, and Meghna basins of Bangladesh.

Eighty per-cent of Bangladesh may be classified as floodplain. The MoA Flood Recovery Plan of 1987 evolved a dual strategy.

"The weaning of agriculture away from the flood-vulnerable Kharif I and Kharif II seasons, into the more stable rabi season with expanded irrigation technology will continue. However, access to food for the increasing numbers of poor agricultural households living in flood prone environments, with insufficient capital to adopt the more stable rabi-season development strategy, necessitates a second vulnerability reduction strategy. This second strategy should provide "a safety net" for poorer agricultural households in risk prone areas to develop flood or drought tolerant farming systems so as to provide improved agricultural income and employment for the nation."

MoA and GoB have already released the impetus for expanded irrigation in the rabi season. Now it is the time to move investments beyond flood recovery towards a strategy for all seasons, pushing the intensive margin seasonally towards the flood areas. Floodplain investment should also exploit the massive resources of the high risk, but high potential, monsoon

agriculture in the floodplains. The floodplains of Bangladesh should be zoned according to the probability and type of risk where the fisheries resources are among the richest in the world with over 300 aquatic species. Integrated agriculture/aquaculture or farming and fish culture in the flood plain environment are parallel activities contributing to the improved livelihood of rural households. BARC studies on farming systems sites have already suggested the very high returns per hectare from combined, livestock (e.g. ducks), aquaculture, and crops. Both ducks and fisheries have large export potential as evidenced by the growth of fish exports from \$19 million in 1977-78 to \$140 million in 1987-88. Modern technologies and improved cultural practices also provide the potential for large labour absorption, e.g. some shrimp farms support 223 man-days of labour per hectare, as well as the potential for semi-skilled labour in the complementary transportation (water and land) and agro-processing sector adding further value within Bangladesh to export. Investments in floodplain agriculture require not only direct investments in the farming systems of the floodplain, they also require investments in the rural infrastructure necessary to increase the resilience of floodplain agriculture e.g. rural electrification, roads, inland water transport markets, and agro-processing facilities. Together this requires the coordination of informed policy making relating to agriculture, but beyond the agricultural sector. It requires the involvement of Irrigation, Fisheries, Livestock, Roads, and Highways, Energy, Finance and Environment. Investments in floodplain agriculture require a thorough analysis of Bangladesh's comparative advantage in obtaining higher productivity, higher returns with higher inputs as Bangladesh floodplain agriculture changes amidst the liberalising of international trade and the effects of rapid urbanisation changing patterns of demand.

#### FOUNDATIONS FOR AN INVESTMENT PLAN FOR FLOODPLAIN AGRICULTURE.

A sustainable development strategy as the basis for a massive investment plan in floodplain agriculture cannot be made on perceptions and hunches. It should be grounded on solid concepts and people must deal with the empirical data. The following preparatory activities are required to encourage and direct the investment action programme.

- a. Establish a computer assisted flood plain monitoring Network to establish time series data on the potential returns, productivity, equity, stability, and sustainability of flood plain agriculture:
  - i. Coordinate in the different agro-ecological zones farming systems sites (FSR-BARC), stable resource and socio-economic monitoring sites (MPO), and extension demonstration sites (DAE) with other monitoring activities, e.g. SPARRSO etc.
  - ii. Monitor resource availability, the water regime, and resource use;

- iii. Monitor farmers' and labourers (male and female) responses to both flooding and drought over time;
  - iv. Monitor farmers' innovative practices before, during, and after different patterns of flooding and in different risk situations;
  - v. Monitor farmers inter-seasonal strategies and responses to varying water regimes, resource availability, and the availability of traditional and modern technologies.
  - vi. Monitor the dynamism of socio-economic conditions overtime, including production levels and the prices paid, and received, etc.
- b. Develop economic models of alternative flood season agriculture using this information to predict the potential returns from investment in flood plain agriculture.
- i. Develop static or snapshot data covering larger flood plain uses through field surveys along transects.
  - ii. Develop, using geographic information systems, an integrated flood plain data base for selected flood plain areas that encompass both the transects and the monitoring sites. This large area data base would assist area development planning and would include:
    - infrastructure
    - topography
    - flood depth, timing, and frequency data from simulation studies and hydrologies data analysis
    - cropping patterns, sequences, yields, and input use
    - resources (soils, water)
    - Socio-economic data
  - iii. Identify the changes that have occurred over long time periods in the flood plains of Bangladesh to determine the reasons for the booms and slumps in flood plain agriculture.
    - changes in water regime and water management technologies
    - changes in varieties, practices, and productivity
    - changes in access to inputs including electricity, energy, credit, pesticides, fertiliser and information etc;

- changes in annual cropping patterns, sequences;
  - changes in the agrarian structure and resulting investment patterns;
  - changes in the marketing systems and rural infrastructure by road, rail and boat;
- iv. Document the changes in farmers' strategies and responses to flooding.
- c. Flood Plain Zoning - According to the Impact of different types of floods e.g., flash flood etc. on Agricultural Production & Fisheries.
- d. Develop technologies for flood risk management
- crops/varieties/cropping patterns
  - agronomic management practices
  - dryland farming techniques
  - crop diversification
- e. Design agro-technology transfer systems for flood-prone areas;
- rehabilitation programmes
  - alternative management systems
  - new national systems for the transfer of technologies
- f. Evaluate the on-going investments to reduce floods and increase productivity (including water control infrastructure)
- i. Changes in the water regime
  - ii. Impact on wet and dry season agriculture
  - iii. The responses of farmers to the introduction of water control facilities and the factors affecting farmer responses.
  - iv. Identify the factors affecting performance in terms of water management and beneficial changes in the water regime.
  - v. Operation and maintenance of water control systems.
  - vi. Participation and involvement of local institutions and beneficiaries in water resource development.

- vii. Overall Economic returns.
- g. Aquaculture in flood plain areas:
  - i. Documentation of the potential resources and management of the flood plain fisheries.
  - ii. Estimation of the present use of fisheries and their potential productivity
  - iii. Estimation of the present and potential linkages between aquaculture and agriculture
  - iv. Determination of the water management needs for the maintenance and enhancement of floodplain aquaculture.
  - v. Documentation of the factors related to aquaculture which affect farmer behaviour in agriculture (apart from inter-cropping) and assessment of how these areas of activity are linked and how the linkages affect behaviour and farmer strategies, so as to support those behaviours related to beneficial changes.
- h. The transportation system in remote floodplain areas
  - i. Assessment of the transportation needs for floodplain agricultural development
  - ii. Breakdown of the transportation modes and the costs of development of those different modes to support input supplies and output marketing from floodplain agriculture.
  - iii. Analysis of how changes in the mode, availability, capacity, costs of flood plain transport have affected agriculture.
- i. Consider comparative studies of different types of farmers and other beneficiaries' responses to flood control actions and the socio-economic and environmental implications of purposive interventions in different floodplains of the world (e.g. Mississippi, Netherlands, Nile, Mesopotamia, Indus, Orissa, Mekong, Ilwango, etc.).
- j. Seek out and solve priority research for attaining the NARS Goal in floodplain areas - and evolve an appropriate. (Coordination System) e.g. BARC, MPO, SPARRSO, BIDS linking national and international collaborative research and ensuring a public access data base to support policy making and project investment.

This will integrate - DAE, SPARRSO, and AEZ GIS systems for monitoring and forecasting the impacts of flood on productivity and incomes. The centre should design computer programs to assist policy modelling efforts to:

- (a) Estimate losses depending upon flood duration, timing, height, and rise etc. in different agro-ecosystems.
- (b) Design Scenarios with options for Floodplain Rehabilitation Programmes.
- (c) Estimate the maximisation of returns under different scenarios from investment in different floodplain technologies.

DISCUSSION FORUM ON  
FLOODPLAIN AGRICULTURE

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