

**BANGLADESH WATER DEVELOPMENT BOARD  
LOCAL GOVERNMENT ENGINEERING DEPARTMENT**

**PREPARATORY SURVEY  
ON  
UPPER MEGHNA RIVER BASIN WATERSHED  
MANAGEMENT IMPROVEMENT PROJECT  
IN  
THE PEOPLE'S REPUBLIC OF BANGLADESH**

**FINAL REPORT  
VOLUME-II    APPENDIXES**

**FEBRUARY 2014**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**NIPPON KOEI CO., LTD.**

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## **FINAL REPORT**

### **List of Reports**

**Volume-I : Main Report**

<b>Volume-II : Appendixes</b>
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<b>Exchange Rate</b>
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VOLUME-II APPENDIXES**

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## *Appendixes 2.1 to 2.2*

**Appendix 2.1 Questionnaire Sheet of Household Survey****Household Survey**No. 



**Part A Socio-economic Conditions**

Name of Haor ( )

Name of the enumerator		Date of the interview
Name of the field supervisor		Checked by the supervisor <input type="checkbox"/> yes <input type="checkbox"/> No
Upazila:	Union	Gram (Village):

Name of the respondent	Age	Sex
Name of the household head	Age	Sex
Number of Family Members		

**A.1 Household Profile**

Names of Family Members	Sex	Age	Education Level	Occupation

**A.2 Household Characteristics**

Descriptions	Please TICK or indicate			
Ownership of house				
Ownership of housing yard				
Type of house	Pacca	Semi-pacca	Kacha.	
Power source (electricity)	Yes	No	If No, specify ( )	
Drinking water source (rainy season)	SW	DTW	River	Other( )
Drinking water source (dry season)	SW	DTW	River	Other( )
Domestic water source	SW	DTW	River	Other( )
Quality of drinking water	Good	Bad	If Bad*, specify( )	
Sanitary (toilet)	Septic	Pit	Others ( )	
Fuel (for Cooking)	Wood/Crop Residue	Kerosene	Dung	Other( )

Remarks: \* If water is BAD, specify salty, muddy, etc.



### A.3 Household Assets

	Items	No.
1.	Motorcycle	
2.	Bicycle	
3.	Boat	
4.	Ox-cart	

	Items	No.
5.	Radio	
6.	TV	
7.	Other( )	
8..	Other( )	

### A.4 Household Income & Expenditure

How do you classify yourself (in terms of main source of income)?

1. Farmer	2. Fisher	3. Farm Labour	4. Others ( )
-----------	-----------	----------------	---------------

(1) Income from agriculture & fishery (for 2012) by season

Please put 1, 2, 3 - - in order of importance/amount of earnings

	Income Sources	Dry Season		Rainy Season	
		Order	Amount (Tk/season)	Order	Amount (Tk/season)
1.	Paddy cultivation				
2.	Other crops cultivation				
3.	Inland fishing				
4.	Fish culture				
5.	Poultry farming				
6.	Dairy farming				
7.	Others ( )				
8.					
9.					

(2) Household income from NON-FARM sources (for 2012) by season

Please put 1, 2, 3 - - in order of importance/amount of earnings

	Descriptions	Dry Season		Rainy Season	
		Order	Amount (Tk/season)	Order	Amount (Tk/season)
1.	Salary (working in government, etc.)				
2.	Wages from casual work				
3.	Business/trade				
4.	Cottage industry				
5.	Farm labour				
6.	Casual labour				
7.	Remittances				
8.	Others (specify below)				
9.					

(3) Household expenditure (for 2012)  
(Please provide average monthly or annually).

	Descriptions	Monthly (tk)	Annually (tk)
1.	Food		
2.	Farming Expenses (crop & livestock)		
3.	Farming Expenses (fishery)		
4.	Utilities (water, electricity, etc.)		
5.	Fuel for cooking, etc.		
6.	Clothing		
7.	Health care & medical		
8.	Education		
9.	Travel & communication		
10.	Social functions including entertainment		
11.	Repayment of loans / debts		
12.	Savings		
	Others (specify)		

(4) When your income is not sufficient for living expenses and farm expenses and when you suffered from flooding, how do you make the shortage (balance)  
(Please TICK where applicable).

	Description	When	
		Income Is Insufficient	Suffered from Flood
1.	Pawn jewellery		
2.	Borrow from relatives / friends		
3.	Borrow (or take credit) from village shops/money lenders		
4.	Sell property		
5.	Others (specify)		

## Part B Crop Production & Livestock

### B.1 Holding Size & Farming Asset

(1) Holding size & ownership of farm land

	Lowland Field				Upland Field
Irrigation/Rainfed	Irrigated				
Tenure Status 1/					
Area (acre)					

1/: own, rented, tenant, sharecropped, etc.

(2) Irrigation/water charge per season: ( tk/season)

(3) Holding size of animal & poultry at present

Buffalo	Goat	Sheep	Chicken	Duck	

(4) Farming asset (farm machinery, equipment, tools etc.)

	Descriptions	No.		Descriptions	
1.	Power tiller		9.	Low lift pump	
2.	Power thresher		10.	STW(shallow tube well)	
3.	Pedal thresher		11.	Double lift pump	
4.	Bullock cart		12.	Rice mill	
5.	Draught animal (buffalos)		13.	Parboil equipment	
6.	Plough		14.	Grain storage container	
7.	Land leveller (ladder)		15.	Others (specify)	
8	Pedal pump				

## B.2 Cropped Area & Production of Major Crops in 2012/2013

1.	Crop/Variety (HYV/local)	bolo/HYV			
2.	Season	Rabi			
3.	Cropped area (acre)				
4.	Yield (kg/acre)				
5.	Production (kg)				
6.	Marketed volume (kg)				
7.	Selling price per kg (tk/kg)				

1.	Crop/Variety (HYV/local)				
2.	Season				
3.	Cropped area (acre)				
4.	Yield (kg/acre)				
5.	Production (kg)				
6.	Marketed volume (kg)				
7.	Selling price per kg (tk/kg)				

## B.3 Cropped Area & Production of Other Crops in 2012/2013

	Descriptions	Kharif 1	Kharif 2	Rabi	Year Round
1.	Production (kg)				
2	Selling price per kg (tk/kg)				

**B.4 Livestock Production & Sale in 2012/2013**

Descriptions	Monthly	Annual	Descriptions	Monthly	Annual
Egg Prod. (chicken) (kg)			Sale Sheep (head)	-	
Egg prods. (duck) (kg)			Sale Buffalo (head)	-	
Sale of Chicken (bird)			Sale Cattle (head)	-	
Sale of Duck (bird)			Cow Milk Prod. (lit.)		
Sale of Goat (head)	-		Goat/Sheep Milk Prod. (lit.)		

**Part C Fisheries****C.1 General**

(1) What type of fisheries activities are you involved? (Please tick where applicable)

1.	Open water fishing	
2.	Pond fish culture (fish farming)	
3.	Both open water fishing & pond fish culture (fish farming)	
4.	Others (specify): (e.g.) Integrated fish culture with poultry	
5.	Years of experience in fish culture	years
6.	Do you keep record of fish farming (season or by cycle)?	1. Yes      2. No

(2) What are your productive assets (Please select and list others) for fisheries?

Descriptions	No.	Descriptions	No.	Descriptions	No.
Ponds		Refrigerator		Fishing net	
Boats		Feed mixer		Generator	
Pump					

**C.2 Fish Farming (Fish Culture),**

(1) Number of ponds, area and ownership

	Descriptions	No.	Area	Ownership	
1.	Nursery ponds			Own	Rented
2.	Rearing ponds			Own	Rented
	Total – Fish Farm Area				

(2) Source of water supply and charges (if any)

Descriptions	Yes or No	Water Charges (tk/month)	Descriptions	Yes or No	Water Charges (tk/month)
River			Irrigation canals		
Open water bodies			Others (specify)		

(3) Type of aquaculture system or practice

	Descriptions	Season-1	Season-2	All Year Around
1.	Extensive			
2.	Semi-intensive			
3.	Intensive			
4.	Mono-culture			
5.	Poly-culture			
6.	Poultry-fish culture			
7.	Rice-fish culture			

(4) Type of fish species cultured, stocking density (pieces/sq. meter) and production (kg/cycle or kg/year), selling prices & survival rate

Name of Species	No of cycles/year	Stocking density (pcs./sq m2)	Production per cycle (kg/cycle)	Annual Production (kg/year)	Selling Price (tk/kg)	Survival Rate/Cycle (%)
Catla						
Rohu						
Mirigal						
Silver carp						
Bighead						
Common carps						
Tilapia						
Prawn						
Others						

(5) Source of fry and fingerlings and buying price (tk/piece)

	Name of Species	Govt. Hatchery	Private Hatchery	Other source
1.	Catla	tk/pcs.	tk/pcs	tk/pcs
2.	Rohu	tk/pcs	tk/pcs	tk/pcs
3.	Mirigal	tk/pcs	tk/pcs	tk/pcs
4.	Silver carp	tk/pcs	tk/pcs	tk/pcs
5.	Bighead	tk/pcs	tk/pcs	tk/pcs
6.	Common carps	tk/pcs	tk/pcs	tk/pcs
7.	Tilapia species	tk/pcs	tk/pcs	tk/pcs
8.	Freshwater prawn	tk/pcs	tk/pcs	tk/pcs
9.	Others (specify)	tk/pcs	tk/pcs	tk/pcs

**C.3 Open Water Fishing (Inland Capture Fishing)**

(1) What are the fishing seasons? (Indicate from what month to month).

a. Season	from	to	b. Season	from	to
-----------	------	----	-----------	------	----

(2) Where do you conduct your fishing operations?

a. River	b. Bheels/Ox-bow lakes	c. Floodplain	d. Others (specify)
----------	------------------------	---------------	---------------------

(3) Purpose of fishing: 1. For elf consumption 2. For sale 3. For both

(4) How much do you pay for capture fishing per season: ( tk/kg)

(5) Frequency of fishing? \_\_\_\_\_ times per week

(6) Productive assets for capture fishing (open water fishing)

	Descriptions	No.	Descriptions	No.
1.	Boats with engine		Cast nets	
	Boats without engine		Push nets	
3.	Gill nets		Hook & lines	
4.	Seine nets		Other (specify)	
5.	Lift nets			

(7) Average fish catch volume (kg) (Provide an estimate of catch per trip or month)

	Fish Category	Kg/trip	Kg/month	Kg/season
1.	Big carps			
2.	Small carps			
3.	Cat fish			
4.	Snake head			
5.	Small varieties			
6.	Others (specify)			

**Part D Marketing, Agricultural Support Services, Organizations****D.1 Marketing of Products**

(1) Prevailing marketing channel of crops, please Tick where applicable.

	Market Channel	Commodity		
		Paddy		
1.	To a collector (who visits the farm)			
2.	To a wholesaler in the village			
3.	To a wholesaler in nearby town or village			
4.	To a retailer in the village			
5.	To Farmers Organization (Cooperative)			
6.	Others (specify) _____			

(2) Prevailing marketing channel of fish & livestock products -1, please Tick where applicable.

	Market Channel	Fish	Egg	Chicken/ Duck	Animal
1.	To a collector (who visits the farm)				
2	To a wholesaler in the village				
3	To a wholesaler in nearby town or village				
4	To a retailer in the village				
5	To Farmers Organization (Cooperative)				
6	Others (specify) _____				

## D. 2 Extension Services

(1) What kind of extension services of government, NGOs and donors you are currently provided with? Please tell us in detail.

Crop sub-sector	
Fishery sub-sector	
Livestock sub-sector	

(2) Are you satisfied with such support services? If not satisfied, please tell us reasons for.

Crop sub-sector	
Fishery sub-sector	
Livestock sub-sector	

(3) Frequency of visits of extension personnel, please put ☐ on relevant frequency

Extension Personnel	Frequency of Visits
Agriculture (DAE)	1. once/2 weeks, 2. once/3-4weeks, 3. Once/1-3months, 4. Seldom - no
	1. once/2 weeks, 2. once/3-4weeks, 3. Once/1-3months, 4. Seldom - no
	1. once/2 weeks, 2. once/3-4weeks, 3. Once/1-3months, 4. Seldom - no
	1. once/2 weeks, 2. once/3-4weeks, 3. Once/1-3months, 4. Seldom - no
	1. once/2 weeks, 2. once/3-4weeks, 3. Once/1-3months, 4. Seldom - no

**D. 3 Farm Inputs Supply**

Where &amp; how do you procure farm inputs for farming, fishery &amp; livestock

Commodity	Where & how do you procure
Seed	
Fertilizer	
Agro-chemicals	
Livestock feed	
Chicks/duckling	
Fish fingerling/fry	
Fishing gear	

**D. 4 Accessibility to Farm Credit:** 1. Easy, 2. Difficult, 3. No access**D. 5 Farmers/Rural Organizations**

(1) Your Membership in Farmers Organizations 1/; Activities &amp; Obligations

Farmers Organization	Major Activities	Obligations

1/: KSS, WA, etc.



## Part E Development Activities/Projects

### E.1 Are you participating in Agriculture & Other Development Interventions/Activities (crop/fishery/livestock & others) implemented by Government, NGOs & Donors ?

Activities/Projects & Agency	Major Activities

### E.2 Are you going to positively participate and fulfil obligations in development interventions envisaged under the present Project ?

--

## Part F Problems/Constraints, Needs & Future Aspirations

### F.1 Problems/Constraints

What are the specific **Problems / Constraints** that you face in crop, fishery & livestock production?

#### (1) Crop sub-sector

Problems/Constraints	Your Suggestion to Improve

#### (2) Fishery sub-sector

Problems/Constraints	Your Suggestion to Improve

## (3) Livestock sub-sector

Problems/Constraints	Your Suggestion to Improve

## (4) Other sectors

Problems/Constraints	Your Suggestion to Improve

**F.2 Immediate Needs**

What are your Immediate Needs to Improve Crop, Fishery & Livestock Production and Income?

## (1) Crop sub-sector

--

## (2) Fishery sub-sector

--

## (3) Livestock sub-sector

--

(4) Other sectors

--

### F.3 Future Aspirations

Please tell us about your Future Aspirations for crop, fishery & livestock production & other sectors.

(1) Crop sub-sector

--

(2) Fishery sub-sector

--

(3) Livestock sub-sector

--

(4) Other sectors

--

## Part G Losses Caused by Floods

Please inform us lossess of production & assets you suffered from **Flash Flood**

	Losses of Production			Losses of Assets	Maximum Flash Flood Depth in Your Lowland Field (m)
	Production was xx% of normal years				
Year	Boro Rice	Other Crops	Fish Prod.	(tk)	
2004					
2010					

**Appendix 2.2 Findings from the Household Survey, July/2013****Part A Socio-economic Conditions****Table A.1: Target Projects & Upazilas for Household Survey**

District	Upazila	Related Project/Haor	Project Area (ha)	Project Type	Sample Numbers
Sunamganj	1. Dharmapasha	Dharmapasha Rui Beel	18,972	New project	71
Kishoreganj	2. Nikli	Boro Haor (Nikli)	9,147	New project	35
	3. Mithamaine	Charigram Project	7,829	New project	35
	4. Austagram	Boro Haor (Austagram)	11,013	New project	37
Netrokona	5. Purbadhala	Kangsa River Scheme	11,337	Rehabilitation	37
Habiganj	6. Ajmiriganj	Kairdhala Ratna	11,900	Rehabilitation	70
Brahmanbaria	7. Bancharampur	Satdona Beel Scheme	5,030	Rehabilitation	35
Netrokona	8. Khaliajuri	Dhanu River	-	River dredging	35
Total					355

**Table A.2: District-wise No. of Households Sampled and No. of Household Members**

District	Sample Numbers	No. of household members from the sampled HHs			Average No. of Household Member
		Male	Female	Total	
Sunamganj	71	216	207	423	5.96
Habiganj	70	206	224	430	6.14
Netrokona	72	220	218	438	6.08
Kishoreganj	107	337	280	617	5.77
Brahmanbaria	35	98	94	192	5.49
Total	355	1,077 (51.29%)	1,023 (48.71%)	2,100	5.92

**Table A.3: Distribution of the Respondents and the Head of the Households by their respective Age**

Age (Years)	Respondents		HH Heads	
	Number	Share (Column %)	Number	Share (Column %)
20 - 30	25	7.04%	15	4.23%
30 - 40	79	22.25%	72	20.28%
40 - 50	110	30.99%	111	31.27%
50 - 60	91	25.63%	93	26.20%
60 - 70	39	10.99%	48	13.52%
70 - 80	9	2.54%	14	3.94%
80 - 90	2	0.56%	2	0.56%
Total	355			

Note: All the respondents were Male and only one household sampled is headed by a Female

**Table A.4: Age Distribution of Household Members**

Age (Years)	Sex				All	
	Male		Female			
	Number	Share (Row %)	Number	Share (Row %)	Number	Share (Column %)
0 - 10	239	48.28%	256	51.72%	495	23.57%
10 - 20	258	50.79%	250	49.21%	508	24.19%
20 - 30	164	48.96%	171	51.04%	335	15.95%
30 - 40	116	49.36%	119	50.64%	235	11.19%
40 - 50	118	54.13%	100	45.87%	218	10.38%
50 - 60	97	60.25%	64	39.75%	161	7.67%
60 - 70	56	65.12%	30	34.88%	86	4.10%
70 - 80	18	43.90%	23	56.10%	41	1.95%
80 - 90	7	70.00%	3	30.00%	10	0.48%
90 - 100	4	36.36%	7	63.64%	11	0.52%
Total	1077	51.29%	1023	48.71%	2100	100.00%

**Table A.5: Education Level of Household Members**

Education Level	Sex				All	
	Male		Female			
	Number	Share (Column %)	Number	Share (Column %)	Number	Share (Column %)
Illiterate	274	44.26%	243	43.32%	517	<b>43.81%</b>
Class 1 - 4	59	9.53%	61	10.87%	120	10.17%
Class 5 - 9	219	35.38%	205	36.54%	424	35.93%
Secondary School Certificate	37	5.98%	25	4.46%	62	5.25%
High School Certificate	7	1.13%	3	0.53%	10	0.85%
BA/BCom/BSc	18	2.91%	21	3.74%	39	3.31%
Masters or higher	5	0.81%	3	0.53%	8	0.68%
<b>Total</b>	<b>619</b>	<b>100.00%</b>	<b>561</b>	<b>100.00%</b>	<b>1,180</b>	<b>100.00%</b>

Note: Household member aged 18 years or above is counted.

**Table A.6: Employment Sector of Household Members**

Occupation	Sex				All	
	Male		Female			
	Number	Share (Column %)	Number	Share (Column %)	Number	Share (Column %)
Farmer	484	78.19%	4	0.71%	488	41.36%
Business	23	3.72%	3	0.53%	26	2.20%
Service	20	3.23%	3	0.53%	23	1.95%
Day labor	12	1.94%	1	0.18%	13	1.10%
Fisherman	5	0.81%	0	0.00%	5	0.42%
Boatman	3	0.48%	0	0.00%	3	0.25%
Driver	3	0.48%	0	0.00%	3	0.25%
Unemployed	9	1.45%	15	2.67%	24	2.03%
Housewife	0	0.00%	447	79.68%	447	37.88%
Dependent, Retired	37	5.98%	57	10.16%	94	7.97%
Student	22	3.55%	27	4.81%	49	4.15%
Disable	1	0.16%	4	0.71%	5	0.42%
Total	619	100.00%	561	100.00%	1,180	100.00%

Note: Household member aged 18 years or above is counted

**Table A.7: Land Holding Condition of Household**

(Unit: 1 acre = 0.404686 hectare = 4046.86 square meter)

District	No. of Sampled HHs by Land Holding Size (in Acre)						Total Farm Holdings	Average Land Holding Size (Acre)	Operational Farms	
	0.05 - 0.49	0.50 - 0.99	1.00 - 1.49	1.50 - 2.49	2.50 - 7.49	7.50+			Number	Average Size (Acre)
(Land Holding Categories)	Small				Medium	Large				
	Marginal									
Sunamganj	2	4	13	40	12		71	1.70	71	2.13
Habiganj	6	18	16	29		1	70	1.46	70	2.23
Netrokona	13	18	6	13	15	4	69	2.18	71	2.52
Kishoreganj	1	20	35	41	10		107	1.42	107	1.76
Brahmanbaria	4	4	10	11	2		31	1.27	35	1.40
<b>Total</b>	<b>26</b>	<b>64</b>	<b>80</b>	<b>134</b>	<b>39</b>	<b>5</b>	<b>348</b>	<b>1.62</b>	<b>354</b>	<b>2.04</b>
<b>Share (%)</b>	<b>7.47 %</b>	<b>18.39 %</b>	<b>22.99 %</b>	<b>38.51 %</b>	<b>11.21 %</b>	<b>1.44 %</b>				

Note: 6 HHs are there who don't own any cultivable land but are farming on rented/sharecropped lands

**Table A.8: Living Condition of Surveyed Household**

Services									
1	Ownership of house	Own		100%		Rent		0%	
2	Average Size of housing yard	355m2 (8.78 decimal = 0.0878 acre)							
3	Type of house	Pacca	0.56%	Semi-pacca		15.49%	Kacha	83.94%	
4	Power source (electricity)	Connected		42.82%		Not Connected		57.18%	
5	Water source								
	Drinking: Rainy season	SW	75.49%	DTW	23.66%	River	0.85%	Other	0.00%
	Deinking: Dry season	SW	75.21%	DTW	23.66%	River	1.13%	Other	0.00%
	Domestic Use	SW	56.34%	DTW	11.55%	River	18.31%	Other	13.80%
6	Quality of drinking water	Good		85.35%		Bad		14.65%	
7	Sanitary (toilet)	Septic	11.83%	Pit Latrine	72.11%	Open	11.27%	Hanging	4.79%
8	Fuel (for Cooking)	Wood/Crop Residue	82.82%	Kerosene	1.13%	Dung	16.06%	Other	0.00%

Note:

- Types of houses- **Pacca:** robust house made of brick and concrete  
**Semi-pacca:** normal house made of brick, timber and corrugated iron roof  
**Kacha:** fragile house made of organic materials (bamboo, straw)
- Types of water sources- **SW:** Shallow Well, **DTW:** Deep Tube Well

**Table A.9: Percentage of Households having some selected Assets/Durables**

Assets	Households owning the assets	
	Number	%
Motorcycle	11	3.10%
Bicycle	55	15.49%
Boat	75	21.13%
Ox-cart	12	3.38%
Radio	15	4.23%
TV	74	20.85%

**Table A.10: Average Annual Income and Consumption Expenditure of Households Surveyed**

(Unit: TK/year)

District	No. of Household Member	No. of Earner	Sample numbers	Average Income			Average Expenditure
				Total	Dry Season	Rainy Season	
Sunamganj	5.96	1.62	71	135,533	107,226	28,306	143,559
Habiganj	6.14	1.66	70	205,465	119,055	86,410	191,636
Netrokona	6.07	1.53	72	163,787	81,808	81,979	169,014
Kishoreganj	5.77	1.85	107	149,291	101,487	47,804	140,736
Brahmanbaria	5.49	2.03	35	170,664	115,908	54,756	179,699
<b>Total</b>	<b>5.91</b>	<b>1.72</b>	<b>355</b>	<b>162,663</b>	<b>103,529</b>	<b>59,134</b>	<b>160,914</b>

**Table A.11: Summary of Average Household Income per Season**

(Unit: TK/year)

	Average Income (TK)			Share (%)		
	Total	Dry Season	Rainy Season	Total	Dry Season	Rainy Season
Agriculture and Fishery Income	104,200	72,130	32,069	<b>64.1%</b>	44.3%	19.7%
Other Income (305 out of 355 HHs)	58,463	31,399	27,064	35.9%	19.3%	16.6%
<b>Total</b>	<b>162,663</b>	<b>103,529</b>	<b>59,134</b>	<b>100.0%</b>	<b>63.6%</b>	<b>36.4%</b>

**Table A.12: Internal Migration of HH Members for Income Earning Activities by Month**

Months	HHs with at least one member going/staying outside the District	
	No. of HHs	%
January	8	2.25
February	19	5.35
March	24	6.76
April	12	3.38
May	16	4.51
June	21	5.92
July	24	6.76
August	27	7.61
September	19	5.35
October	10	2.82
November	6	1.69
December	9	2.54
<b>At least once in a year</b>	<b>62</b>	<b>17.46</b>

Note: The information in this regard was collected by the enumerators and was put in the survey questionnaire as a side-note; because the survey questionnaire provided to the enumerators didn't include any question regarding this issue.

Table A.13: Average Income per Income Source and Season

(Unit: TK/year)

	Total Income	Share	Dry Season				Rainy Season			
			Total Income	Share	Count	Average	Total Income	Share	Count	Average
<b>Agriculture and Fishery Income</b>										
Paddy cultivation	24,969,233	43.2%	20,299,073	35.2%	336	60,414	4,670,160	8.1%	126	37,065
Other crops cultivation	1,186,280	2.1%	1,011,820	1.8%	57	17,751	174,460	0.3%	11	15,860
Inland fishing	4,466,200	7.7%	561,500	1.0%	35	16,043	3,904,700	6.8%	129	30,269
Fish culture	763,670	1.3%	458,400	0.8%	19	24,126	305,270	0.5%	15	20,351
Poultry farming	3,212,944	5.6%	1,741,364	3.0%	103	16,906	1,471,580	2.5%	82	17,946
Dairy farming	2,348,922	4.1%	1,497,930	2.6%	104	14,403	850,992	1.5%	64	13,297
Others	43,600	0.1%	36,200	0.1%	2	18,100	7,400	0.0%	2	3,700
<b>Subtotal</b>	<b>36,990,849</b>	<b>64.1%</b>	<b>25,606,287</b>	<b>44.3%</b>	<b>355</b>	<b>72,130</b>	<b>11,384,562</b>	<b>19.7%</b>	<b>355</b>	<b>32,069</b>
<b>Other Income</b>										
Salary (working in government, etc.)	2,241,200	3.9%	981,600	1.7%	30	32,720	1,259,600	2.2%	30	41,987
Business/trade	6,907,620	12.0%	3,732,650	6.5%	106	35,214	3,174,970	5.5%	95	33,421
Cottage industry	0	0.0%	0	0.0%	0	0	0	0.0%	0	0
Farm labour	532,500	0.9%	230,500	0.4%	19	12,132	302,000	0.5%	18	16,778
Casual labour	3,728,400	6.5%	2,345,000	4.1%	111	21,126	1,383,400	2.4%	73	18,951
Remittances	2,176,000	3.8%	1,157,000	2.0%	25	46,280	1,019,000	1.8%	18	56,611
Others	5,168,800	9.0%	2,699,900	4.7%	102	26,470	2,468,900	4.3%	75	32,919
<b>Subtotal</b>	<b>20,754,520</b>	<b>35.9%</b>	<b>11,146,650</b>	<b>19.3%</b>	<b>355</b>	<b>31,399</b>	<b>9,607,870</b>	<b>16.6%</b>	<b>355</b>	<b>27,064</b>
<b>Total</b>	<b>57,745,369</b>	<b>100%</b>	<b>36,752,937</b>		<b>355</b>	<b>103,529</b>	<b>20,992,432</b>		<b>355</b>	<b>59,134</b>



**Table A.14: Income Shortage/Insufficiency faced by the Sampled HHs by Month**

Months	HHs facing income shortage	
	No. of HHs	%
January	7	1.97
February	152	42.82
March	244	68.73
April	131	36.90
May	31	8.73
June	8	2.25
July	11	3.10
August	25	7.04
September	80	22.54
October	56	15.77
November	17	4.79
December	7	1.97
<b>At least once in a year</b>	<b>305</b>	<b>85.92</b>

**Table A.15: Solution for Emergency Cash Needs**

Countermeasure	Income Is Insufficient		Suffered from Flood	
	Number of Sample	Share (%)	Number of Sample	Share (%)
Borrow from relatives/friends	175	49.30%	143	40.28%
Borrow (or take credit) from village shops/money lenders	173	48.73%	195	54.93%
Sell property	28	7.89%	47	13.24%
Pawn jewelry	6	1.69%	23	6.48%
Others	23	6.48%	24	6.76%

**Table A.16: Average Expenditure per Items**

(Unit: TK/year)

Items	Total Expenditure	Share of Total Expenditure	Average Expenditure per HH
1 Food	23,460,250	41.11%	66,085
2 Farming Expenses (crop & livestock)	12,976,205	22.74%	36,553
3 Farming Expenses (fishery)	1,362,790	2.39%	3,839
4 Utilities (water, electricity, etc.)	966,584	1.69%	2,723
5 Fuel for cooking, etc.	1,949,740	3.42%	5,492
6 Clothing	2,706,116	4.74%	7,623
7 Health care & medical	1,571,660	2.75%	4,427
8 Education	2,149,900	3.77%	6,056
9 Travel & communication	1,986,762	3.48%	5,597
10 Social functions including entertainment	1,539,302	2.70%	4,336
11 Repayment of loans / debts	3,155,040	5.53%	8,887
12 Savings	3,243,610	5.68%	9,137
13 Others	0	0.00%	0
<b>Total</b>	<b>57,067,959</b>		<b>160,755</b>

**Table A.17: Average Annual Income per Main Income Source Category**

(Unit: TK/year)

Main Source of Income	No. of Household Member	No. of Earner	Sample Number	Average Income (TK)			Average Expenditure (TK)
				Total	Dry Season	Rainy Season	
Farmer	5.91	1.73	323	163,148	106,405	56,744	161,892
Fisher	6.00	1.66	29	162,507	78,629	83,878	156,008
Farm Labour	5.33	1.33	3	111,933	34,667	77,267	103,053
<b>Total</b>	<b>5.91</b>	<b>1.72</b>	<b>355</b>	<b>162,663</b>	<b>103,529</b>	<b>59,134</b>	<b>160,914</b>

Note: Surveyed households are categorized automatically into farmer, fisher or farm labour by their main source of income

## Part B Crop Production & Livestock

**Table A.18: Average Size and Distribution of Agricultural Land under the Surveyed Households by Tenure Status and Irrigation Method**

(Unit: 1 Decimal = 40.4686 square meter)

Tenure	Number of Samples	Total Area (Acre)	Irrigated				Rainfed			
			Number of Samples	Total Area (Acre)	%	Average area (Acre)	Number of Samples	Total Area (Acre)	%	Average area (Acre)
Own	348	56,465	348	562.0	77.7%	1.62	2	263	0.4%	1.32
Rented	50	5,792	50	57.9	8.0%	1.16	0	0	0.0%	-
Tenant	67	7,973	66	79.4	11.0%	1.20	1	30	0.0%	0.30
Sharecropped	20	2,144	20	21.4	3.0%	1.07	0	0	0.0%	-
Total	354	72,374	354	720.8	99.6%	2.04	3	293	0.4%	0.98

**Table A.19: Number of Livestock and Farming Assets Owned by the Surveyed Households**

Description		No. of Household having any	Total Number Owned by the Households	Average No. per Household
Holding size of animal & poultry	Buffalo	193	519	2.69
	Goat	40	111	2.78
	Sheep	7	16	2.29
	Chicken	172	5,474	31.83
	Duck	121	8,350	69.01
Farming asset	Power tiller	10	10	1.00
	Power thresher	15	21	1.40
	Pedal thresher	5	5	1.00
	Bullock cart	14	15	1.07
	Draught animal (buffalos)	8	9	1.13
	Plough	150	169	1.13
	Land leveler (ladder)	220	241	1.10
	Pedal pump	17	19	1.12
	Low lift pump	7	8	1.14
	STW(shallow tube well)	48	57	1.19
	Double lift pump	7	8	1.14
	Rice mill	8	10	1.25
	Parboil equipment	203	357	1.76
	Grain storage container	209	319	1.53
	Others (specify)	78	179	2.29

**Table A.20: Per Household Area Under Cultivation, Yield/Decimal, Production/Season, Marketed Value and Selling Price of Crops**

Average...	Paddy			Other Major Crops		
	Rabi	Kharif1	Kharif2	Rabi	Kharif1	Kharif2
Cropped Area (decimal)	187.97	155.00	150.94	32.02	52.39	31.63
Yeild (kg/dec)	23.27	11.96	16.49	22.41	32.39	34.63
Production (kg)	3,904.43	1,770.75	2,462.08	742.22	379.56	1,107.88
Marketed Value (kg)	22.19	13.50	43.45	68.87	19.39	26.13
Selling Price (Tk/kg)	15.15	13.00	15.81	53.41	19.76	26.50
Number of respondent (N)	353	56	53	54	18	8

**Table A.21: Livestock Production and Sales Activities of the Surveyed Households**

Descriptions	No. of Surveyed Households engaged in livestock production and sale	Average quantity Produced/Sold	
		Monthly	Yearly
Egg Prod. (chicken) (kg)	81	48.54	410.01
Egg prods. (duck) (kg)	79	177.15	1,409.54
Sale of Chicken (bird)	66	63.86	1,003.44
Sale of Duck (bird)	70	37.18	446.31
Sale of Goat (head)	7	1.00	3.14
Sale Sheep (head)	1	1.00	1.00
Sale Buffalo (head)	12	1.00	1.33
Sale Cattle (head)	32	1.13	1.34
Cow Milk Prod. (lit.)	88	41.78	445.09
Goat/Sheep Milk Prod. (lit.)	1	60.00	360.00

## Part C Fisheries

**Table A.22: Surveyed Households Involved in Fishing or Fish Farming Activities**

Fishing Activities	Number	%
Open water fishing	150	42.25%
Pond fish culture (fish farming)	14	3.94%
Both open water fishing & pond fish culture (fish farming)	5	1.41%
Total Sample	355	

**Table A.23: Productive Assets for Fisheries, Owned by the Households involved in Fish Farming**

Productive assets for fisheries	No. owned by the HH involved in fish farming	
	Total	Average
Ponds	23	1.21
Boats	18	0.95
Pump	6	0.32
Refrigerator	5	0.26
Feed mixer	24	1.26
Fishing net	43	2.26
Generator	4	0.21

**Table A.24: No. of Ponds and Average Size of the Ponds used by the Surveyed Households for Fish Farming**

(Unit: 1 acre = 0.404686 hectare = 4046.86 square meter)

Descriptions	No. of sampled HHs engaged in fish farming	Average No. of ponds per fish farming households	Average area (acre) of the ponds	Ownership	
				Own	Rented
Nursery ponds	10	1.20	.34	12	0
Rearing ponds	14	1.07	1.20	11	4
<b>All</b>	<b>19</b>	<b>1.42</b>	<b>1.06</b>	<b>23</b>	<b>4</b>

**Table A.25: Sources of Water Used for Fish Farming**

Sources of water	Households using the source		Average charges (Tk/month) paid by the HHs
	No.	%	
River	6	31.58%	2,483
Irrigation canals	2	10.53%	625
<b>Total</b>	<b>8</b>	<b>42.11%</b>	<b>2,019</b>

**Table A.26: Aquaculture Systems Practiced by the Surveyed Fish Farming Households**

Aquaculture systems/Practices	No. of HHs practicing the aquaculture system		
	Season-1	Season-2	All Year Around
Extensive	1		2
Semi-intensive	1	1	4
Intensive	1		
Mono-culture			
Poly-culture	9	8	12
Poultry-fish culture			
Rice-fish culture			

**Table A.27: Information on the Main Species of Fishes Cultured by the Surveyed Households**

Name of Species	Average					
	No. of cycles/year	Stocking density (pcs./sq. m)	Production per cycle (kg/cycle)	Annual Production (kg/year)	Selling Price (Tk/kg)	Survival Rate/Cycle (%)
Catla	1.40	260	160	256	142	78.21
Rohu	1.33	799	268	535	134	76.39
Mirigal	1.41	565	194	362	119	66.47
Silver carp	1.71	1,282	578	1,119	95	62.19
Bighead	2.09	1,856	1,726	2,383	89	71.50
Common carps	1.22	204	112	168	103	77.22
Tilapia	1.50	228	65	69	101	78.13
Prawn	2.00	1,000	1,000	2,000	100	50.00
Others	1.63	855	196	1,301	129	56.88

**Table A.28: Source of Fry and Fingerlings and Average Buying Price**

(Unit: Tk/piece)

Name of Species	Average buying price		
	Govt. Hatchery	Private Hatchery	Other source
Catla		8.33	3.50
Rohi		2.25	3.07
Mirigal		2.50	2.15
Silver carp	3.00	3.50	2.27
Bighead		1.00	4.00
Common carps		2.67	1.50
Tilapia		1.50	4.33
Prawn			2.00
Others			4.50

**Table A.29: Surveyed Households Involved in Any Sort of Open Water Fishing**

		Number of Sample	%
Where do you conduct your fishing operations?	River	53	26.77%
	Bheels/Ox-bow lakes	134	67.68%
	Floodplain	1	0.51%
	Others	10	5.05%
Purpose of fishing	Self-consumption	88	44.44%
	Sale	16	8.08%
	Both	94	47.47%
Total no. of HHs involved in open water fishing		198	

**Table A.30: No. of Months the Households do Open Water Fishing**

No. of months	Number of Sample	%
1 month	9	4.55
2 months	3	1.52
3 months	22	11.11
4 months	41	20.71
5 months	37	18.69
6 months	43	21.72
7 months	22	11.11
8 months	5	2.53
9 months	3	1.52
10 months	3	1.52
11 months	6	3.03
12 months	4	2.02
Total	198	100.00
Avg. no. of months per HHs involved in open water fishing		5.32 months (n=198)

**Table A.31: Number of Productive Assets for Open Water Fishing, Owned by the Surveyed Households**

Productive assets for open water fishing	No. owned by the households involved in open water fishing	
	Total	Average/HH
Boats with engine	22	0.11
Boats without engine	38	0.19
Gill nets	17	0.09
Seine nets	31	0.16
Lift nets	9	0.05
Cast nets	88	0.44
Push nets	114	0.58
Hook & lines	24	0.12
Other (specify)	431	2.18

**Table A.32: Average fish catch volume**

Name of Species	Kg/Trip	Kg/Month	Kg/Season
Big carps	0.23	1.97	9.56
Small carps	0.98	4.90	16.24
Cat fish	0.04	0.37	1.25
Snake head	0.23	3.47	17.93
Small varieties	4.29	43.40	148.32
Others	1.21	19.87	70.88
<b>Total</b>	<b>6.97</b>	<b>73.98</b>	<b>264.19</b>

## Part D Marketing, Agricultural Support Services, Organizations

**Table A.33: Prevailing Marketing Channel of Paddy & Other Crops**

Market Channel	Paddy		Other Crops	
	No.	%	No.	%
Collector (come to farm)	88	18	3	4
Wholesaler in Village	225	46	23	34
Wholesaler in Nearby Town or Village	113	23	26	38
Retailer in Village	61	12	16	24
Cooperatives	2	0.4	0	0
Total Responses*	489	100	68	100
No answer (not marketed)	25		307	

Note: \* Multiple responses allowed

**Table A.34: Prevailing Marketing Channel of Fish and Livestock Products**

Market Channel	Prevailing marketing channel of fish & livestock products							
	Fish		Egg		Chicken/Duck		Animal	
	Number	%	Number	%	Number	%	Number	%
Collectors (who visits the farm)	12	10.34%	7	10.00%	9	11.39%	4	5.48%
Wholesaler in the village	42	36.21%	27	38.57%	37	46.84%	14	19.18%
Wholesaler in nearby town or village	34	29.31%	10	14.29%	19	24.05%	31	42.47%
Retailer in the village	59	50.86%	48	68.57%	40	50.63%	30	41.10%
<b>Total No. of HHs selling fish &amp; livestock products</b>	<b>116</b>	<b>32.68%</b>	<b>70</b>	<b>19.72%</b>	<b>79</b>	<b>22.25%</b>	<b>73</b>	<b>20.56%</b>

**Table A.35: Extension Services Provided**

Item		Service Provider									No Services Provided	No Answer	Total
		DAE/UAO						NGO	Chemical Dealer	Others			
		UAO	DAE (Project)	UAO (Not Sufficient)	UAO & NGO	UAO (Visit with No Advice)	Sub-total						
No. of Respondents	(No.)	77	2	6	3	8	96	8	6	4	226	15	355
	(%)	22	1	2	1	2	27	2	2	1	64	4	100

**Table A.36: Satisfied with Extension Services Provided**

Item		Not Satisfied				Satisfied with Services	Others	No Answer	Total
		No Services Provided	Not Satisfied	Training or Technical Advices to be Provided*	Sub-total				
No. of Respondents	(No.)	115	63	63	241	23	3	88	355
	(%)	32	18	18	68	6	1	25	100

Note: \*Respondent suggested training & technology transfer requirements assumed to be not satisfied

**Table A.37: Frequency of Visits of Extension Personnel**

Extension Personnel	No response/NA		Once/2 weeks		Once/3-4weeks		Once/1-3months		Seldom - No Visit	
	Count	%	Count	%	Count	%	Count	%	Count	%
UAO Staff	29	8%	2	1%	23	6%	53	15%	248	70%
UFO Staff	173	49%	3	1%	11	3%	11	3%	157	44%
DLO Staff	222	63%			2	1%	4	1%	127	36%
NGO	263	74%			3	1%	13	4%	76	21%

Note: Proportion to total respondents 355

UAO - Upazila Agriculture Office; UFO - Upazila Fishery Office; DLO - District Livestock Office

**Table A.38: Farm Inputs Supply - Seeds (Where do you procure seeds?)**

Item		Local Supplier			BADC/DAE	Self-multiplied Seed	Others	No Answer	Total
		Local Market/Dealer	Upazila Market/Dealer	Sub-total					
No. of Respondents	(No.)	283	5	288	34	3	3	3	355
	(%)	80	1	81	10	1	1	1	100

**Table A.39: Farm Inputs Supply - Fertilizer (Where do you procure fertilizer?)**

Item		Local Supplier			BADC/DAE	No Answer	Total
		Local Market/Dealer	Upazila/Town Dealer	Sub-total			
No. of Respondents	(No.)	233	56	289	63	3	355
	(%)	66	16	81	18	1	100

**Table A.40: Farm Inputs Supply - Agrochemicals (Where do you procure agrochemicals?)**

Item		Local Supplier			BADC/DAE	Chemical Shop	No Answer	Total
		Local Market/Dealer	Upazila/Town Dealer	Sub-total				
No. of Respondents	(No.)	280	34	314	21	17	3	355
	(%)	79	10	88	6	5	1	100

**Table A.41: Accessibility to Farm Credit**

Item		Easy	Difficult	No Access	No Answer	Total
No. of Respondents	(No.)	47	233	75	0	355
	(%)	13	66	21	0	100

**Table A.42: Involvement in Farmers Organizations and NGOs**

Organization/Agency	Major Activities	Obligations	Problems Reported	No. of Respondents	
				No.	% *
ASA (NGO)	Micro credit & saving	Monthly installment of loan	High interest rate	10	3
Bangladesh Krishi Bank	Agriculture loan			13	4
BRAC	Agriculture loan			4	1
Grameen Bank	Micro credit & saving			15	4
ICM/IPM Club	Integrated crop/pest management (FFS)		No training room	7	2
PAPI (NGO)	Micro credit, saving & training			6	2
Others				11	3
No answer				289	81

Note: \*Proportion to total sample farmers 355

## Part E Development Activities/Projects

**Table A.43: Participation in Agriculture Development Intervention**

Organization/Agency	Major Activities	No. of Respondents	
		No.	%*
DAE	Training (compost making/IPM/ICM)	13	4
ASA (NGO)	Micro credit & saving	4	1
Grameen Bank	Micro credit & saving	4	1
PAPI (NGO)	Micro credit, saving & training	6	2
Akti Bari Akti Khamar	Personnel & social development	5	1
Others		14	4
No answer		338	95

Note: \*Proportion to total sample farmers 355

## Part F Problems/Constraints, Needs & Future Aspirations

Regarding the result of Question from F.1 to F3, please see the result in the Chapter 5.1.14 (2) “Findings of Household Survey” for Agriculture, and Chapter 6.2.1. (4) “Findings of Household Survey” for Fisheries.

## Part G Losses Caused by Floods

**Table A.44: Economic Loss of the Product and Asset by Flash Flood**

Year	Loss of Production in % (Average per affected HH)						Loss of Asset		
	Boro Rice		Other Crops		Fish Production				
	No. of samples	Avg. loss of production	No. of samples	Avg. loss of production	No. of samples	Avg. loss of production	No. of samples	Total (TK)	Average (TK)
2004	<b>284</b>	<b>75%</b>	57	79%	13	79%	<b>133</b>	<b>3,118,000</b>	<b>23,444</b>
2008	62	66%	1	90%			1	2,500	2,500
2010	<b>210</b>	<b>53%</b>	37	52%	9	31%	<b>71</b>	<b>995,000</b>	<b>14,014</b>
2013	84	39%	1	50%	1	23%	46	1,099,000	23,891



## ***Appendixes 4.1 to 4.10***

**APPENDIX 4.1 Existing Rural Road****Existing Rural Road by Upazila (1/2)**

District	Upazila	Total Length (km)	Pavement Percentage
Netrokona	Atpara	314.16	19.1%
	Bharhatta	535.71	9.6%
	Durgapur	456.75	16.3%
	Kalmakanda	715.56	8.0%
	Kendua	615.66	13.2%
	Khaliajuri	337.68	4.4%
	Madan	358.11	21.3%
	Mohanganj	280.65	23.0%
	Netrokona-S	703.70	11.0%
	Purbadhala	726.20	8.5%
	Total/Average	5,044.18	12.3%
Kishoreganj	Austagram	308.85	2.7%
	Bajitpur	357.44	26.3%
	Bhairab	168.99	36.9%
	Hossinpur	411.56	17.3%
	Itna	319.09	3.8%
	Karimganj	581.95	10.7%
	Katiadi	474.92	25.8%
	Kishoreganj-s	522.42	21.8%
	Kuliarchar	210.36	35.1%
	Mithamoin	287.85	5.3%
	Nikhli	216.71	13.6%
	Pakundia	456.71	19.9%
	Tarail	324.24	20.8%
	Total/Average	4,641.09	17.7%
Sunamganj	Biswamvarpur	238.72	30.7%
	Chatak	563.79	31.5%
	Dakhin Sunamganj	235.87	23.1%
	Derai	425.05	20.2%
	Dharmapasha	404.48	12.8%
	Doarabazar	343.69	28.7%
	Jogannathpur	404.28	31.0%
	Jamalganj	246.37	21.3%
	Sulla	228.37	10.1%
	Sunamganj-s	329.13	27.4%
	Taherpur	283.56	18.9%
	Total/Average	3,703.31	23.9%

**Existing Rural Road by Upazila (2/2)**

District	Upazila	Total Length (km)	Pavement Percentage (%)
Habiganj	Azimiriganj	177.08	6.8%
	Bahubal	589.43	15.2%
	Baiachong	528.39	11.8%
	Chunarghat	676.98	25.2%
	Habiganj-S	388.70	40.9%
	Lakhai	166.97	17.5%
	Nabiganj	720.19	24.9%
	Madhabpur	560.26	24.6%
	Total/Average	3,808.00	22.1%
Sylhet	Balaganj	684.36	30.9%
	Beanibazar	513.01	29.1%
	Biswanath	504.34	38.0%
	Companyganj	295.56	20.7%
	Dakshin Surma	409.47	46.8%
	Fenchuganj	173.81	39.1%
	Golapganj	545.45	46.6%
	Gowainghat	582.88	17.2%
	Jaintiapur	264.28	19.3%
	Kanaighat	770.72	15.6%
	Sylhet-s	601.02	33.5%
	Zakiganj	510.30	21.2%
	Total/Average	5,855.20	29.2%
Maulvibazar	Barlekha	651.48	29.3%
	Juri	461.21	12.4%
	Kamalganj	562.50	23.0%
	Kulaura	1,003.12	20.3%
	Maulvibazar-s	716.13	46.5%
	Rajnagar	448.11	37.4%
	Sreemangal	563.68	25.5%
	Total/Average	4,406.23	27.8%
Brahmanbaria	Akhaura	246.44	54.0%
	Ashuganj	221.70	23.4%
	Brahmanbaria -S	717.29	39.0%
	Bancharampur	350.74	37.4%
	BijoyNagar	-	-
	Kasba	455.10	55.0%
	Nabinagar	629.76	18.6%
	Nasirnagar	415.89	17.0%
	Sarail	367.03	12.9%
	Total/Average	3,403.95	31.8%

Source : LGRD Website

## Existing Rural Road in the Study Area by Road Class (1/2)

District	Upazila	Upazila Road		Union Road		Village Road	
		Length (km)	Pvment	Length (km)	Pvment	Length (km)	Pvment
Netrokona	Atpara	81.00	59.4%	45.81	16.9%	187.35	2.1%
	Bharhatta	54.32	61.2%	63.58	17.6%	417.81	1.7%
	Durgapur	65.14	72.7%	73.79	27.6%	317.82	2.2%
	Kalmakanda	71.24	41.2%	126.17	20.0%	518.15	0.5%
	Kendua	60.54	83.3%	130.16	15.5%	424.96	2.5%
	Khaliajuri	42.95	24.1%	103.95	2.6%	190.78	0.9%
	Madan	61.76	64.5%	52.13	34.8%	244.22	7.6%
	Mohanganj	54.98	73.9%	49.04	21.5%	176.63	7.6%
	Netrokona-S	61.46	66.3%	96.97	17.9%	545.27	3.5%
	Purbadhala	67.29	40.9%	117.77	19.6%	541.14	2.0%
	Total/Average	620.68	59.2%	859.37	18.2%	3,564.13	2.7%
Kishoreganj	Austagram	36.07	0.0%	63.61	12.9%	209.17	0.0%
	Bajitpur	66.11	72.1%	80.91	32.8%	210.42	9.4%
	Bhairab	21.90	100.0%	38.36	58.2%	108.73	16.6%
	Hossinpur	36.37	94.2%	51.00	45.5%	324.19	4.2%
	Itna	98.12	12.4%	52.33	0.0%	168.64	0.0%
	Karinganj	56.84	62.2%	91.43	10.1%	433.68	4.0%
	Katiadi	43.51	100.0%	75.47	61.4%	355.94	9.2%
	Kishoreganj-s	52.14	70.5%	60.42	55.4%	409.86	10.7%
	Kuliarchar	29.20	100.0%	31.85	38.6%	149.31	21.6%
	Mithamoin	36.86	40.1%	38.55	1.2%	212.44	0.0%
	Nikhli	55.55	51.6%	17.74	3.8%	143.42	0.1%
	Pakundia	37.31	100.0%	77.92	37.6%	341.48	7.2%
	Tarail	31.04	85.3%	57.24	42.2%	235.96	7.1%
	Total/Average	601.02	61.2%	736.83	32.1%	3,303.24	6.6%
Sunamganj	Biswamvarpur	43.22	52.8%	46.29	62.3%	149.21	14.6%
	Chatak	124.25	79.0%	110.62	42.8%	328.92	9.8%
	Dakhin Sunamganj	44.31	41.6%	33.20	40.5%	158.36	14.3%
	Derai	63.06	63.0%	141.46	23.2%	220.53	6.0%
	Dharmapasha	110.33	29.6%	88.74	13.4%	205.41	3.6%
	Doarabazar	47.64	97.5%	81.20	52.5%	214.85	4.5%
	Jogannathpur	70.38	89.5%	112.50	35.2%	221.40	10.3%
	Jamalganj	46.23	50.1%	51.09	26.3%	149.05	10.7%
	Sulla	56.30	24.2%	34.80	19.1%	137.27	2.0%
	Sunamganj-s	58.96	68.5%	57.00	39.5%	213.17	12.8%
	Taherpur	68.65	51.6%	57.38	19.9%	157.53	4.3%
	Total/Average	733.33	59.1%	814.28	33.2%	2,155.70	8.5%

Existing Rural Road in the Study Area by Road Class (2/2)

District	Upazila	Upazila Road		Union Road		Village Road	
		Length (km)	Pvment	Length (km)	Pvment	Length (km)	Pvment
Habiganj	Azimirganj	45.78	9.2%	28.90	7.0%	102.40	5.6%
	Bahubal	25.00	100.0%	65.16	57.7%	499.27	5.4%
	Baiaichong	158.93	25.1%	97.95	14.5%	271.51	3.0%
	Chunarghat	98.53	68.7%	50.89	51.0%	527.56	14.6%
	Habiganj-S	44.02	86.4%	56.63	67.3%	288.05	28.8%
	Lakhai	42.66	36.6%	37.45	9.9%	86.86	11.4%
	Nabiganj	92.19	88.8%	118.16	41.3%	509.84	9.6%
	Madhabpur	87.63	83.9%	83.36	30.7%	389.27	9.9%
	Total/Average	594.74	58.1%	538.50	36.4%	2,674.76	11.1%
Sylhet	Balaganj	87.26	77.9%	127.21	61.6%	469.89	13.8%
	Beanibazar	65.26	72.8%	30.45	63.4%	417.30	19.8%
	Biswanath	93.98	96.3%	75.70	68.8%	334.66	14.7%
	Companyganj	36.41	66.0%	61.32	22.2%	197.83	11.9%
	Dakshin Surma	31.25	100.0%	51.18	91.2%	327.04	34.7%
	Fenchuganj	28.69	67.5%	16.50	85.2%	128.62	26.9%
	Golapganj	109.95	72.0%	94.93	66.5%	340.57	32.9%
	Gowainghat	77.43	72.0%	55.24	42.4%	450.21	4.7%
	Jaintiapur	16.56	100.0%	47.75	43.4%	199.97	6.8%
	Kanaighat	113.45	65.4%	58.96	32.1%	598.31	4.5%
	Sylhet-s	39.46	79.1%	69.48	70.3%	492.08	24.7%
	Zakiganj	63.16	78.8%	109.97	23.4%	337.17	9.6%
	Total/Average	762.86	77.0%	798.69	53.2%	4,293.65	16.2%
Maulvibazar	Barlekha	87.66	88.7%	131.25	46.3%	432.57	12.1%
	Juri	23.21	95.7%	60.96	27.0%	377.04	4.9%
	Kamalganj	88.39	85.0%	71.85	32.7%	402.26	7.6%
	Kulaura	43.98	91.2%	162.59	51.6%	796.55	9.9%
	Maulvibazar-s	129.48	97.7%	66.31	62.2%	520.34	31.7%
	Rajnagar	88.89	87.3%	72.41	65.3%	286.81	14.9%
	Sreemangal	77.15	91.3%	95.81	44.6%	390.72	7.9%
	Total/Average	538.76	90.9%	661.18	47.8%	3,206.29	13.1%
Brahmanbaria	Akhaura	24.46	78.4%	44.41	61.4%	177.57	48.8%
	Ashuganj	28.48	74.1%	13.87	90.1%	179.35	10.2%
	Brahmanbaria -S	85.07	76.5%	154.37	60.0%	477.85	25.5%
	Bancharampur	76.09	75.5%	67.16	58.6%	207.49	16.6%
	BijoyNagar						
	Kasba	67.17	84.5%	77.06	91.6%	310.87	39.6%
	Nabinagar	91.47	57.2%	82.97	29.6%	455.32	8.9%
	Nasirnagar	88.33	60.8%	49.47	29.3%	278.09	0.9%
	Sarail	28.53	51.8%	40.12	43.8%	298.38	5.0%
	Total/Average	489.60	69.5%	529.43	56.5%	2,384.92	18.5%

Source : LGRD Website

**APPENDIX 4.2 Existing Market Facility****List of Market by Upazila in the Study Area**

(Unit : Number)

Division/District	Upazila	Growth Center	Rural Market(Hat)	Total
<b>Sylhet</b>				
1. Sunamganj	1. Chhatak	5	41	46
	2. Doarabazar	4	23	27
	3. Shalla	3	7	10
	4. South Sunamganji	3	10	13
	5. Bishwamvarpur	3	26	29
	6. Dharmapasha	5	20	25
	7. Jamal Ganji	4	13	17
	8. Tahirpur	4	15	19
	9. Derai	5	17	22
	10. Jagannathpur	5	29	34
	11. Sunamganji Sadar	3	15	18
	Total	44	216	260
2. Sylhet	1. Gowainghat	5	42	47
	2. Sylhet Sadar	4	56	60
	3. Biswanath	4	36	40
	4. Golapganj	5	38	43
	5. Kanaighat	5	26	31
	6. South Shurma	3	28	31
	7. Beanibazar	5	40	45
	8. Fenchuganj	2	17	19
	9. Jaintapur	4	6	10
	10. Zakigannj	6	21	27
	11. Balaganj	5	69	74
	12. Companigannj	4	19	23
	Total	52	398	450
3. Habiganj	1. Habiganj Sadar	4	22	26
	2. Bahubal	4	17	21
	3. Lakhai	3	14	17
	4. Nabiganj	4	58	62
	5. Ajmiriganj	3	3	6
	6. Chunarughat	5	25	30
	7. Baniachong	5	20	25
	8. Madhabpur	5	18	23
	Total	33	177	210
4. Moulvibazar	1. Kulaura	4	36	40
	2. Sreemangal	5	26	31
	3. Kamal Ganj	6	20	26
	4. Rajnagar	4	28	32
	5. Juri	2	15	17
	6. Baralekha	6	29	35
	7. Moulvibazar Sadar	5	43	48
	Total	32	197	229

Source : LGED District Office

(Unit : Number)				
Division/District	Upazila	Growth Center	Rural Market(Hat)	Total
<b>Dhaka</b>				
5. Kishoreganj	1. Pakundia	4	23	27
	2. Bajitpur	4	25	29
	3. Itna	4	18	22
	4. Kishoreganj Sadar	4	51	55
	5. Nikli	4	15	19
	6. Austagram	3	9	12
	7. Hossainpur	3	24	27
	8. Katiadi	4	34	38
	9. Mithamaine	4	9	13
	10. Tarail	3	22	25
	11. Bhairab	3	26	29
	12. Karimganj	4	40	44
	13. Kuliarchar	3	12	15
	Total	47	308	355
6. Netrokona	1. Mohanganj	4	27	31
	2. Kalma Kanda	5	35	40
	3. Purbadhala	4	46	50
	4. Atpara	4	20	24
	5. Durgapur	4	28	32
	6. Madan	4	27	31
	7. Khaliajuri	4	13	17
	8. Barhatta	4	27	31
	9. Netrokona Sadar	5	60	65
	10. Kendua	5	45	50
	Total	43	328	371
<b>Chittagong</b>				
7. Brahmanbaria	1. Kasba	4	42	46
	2. Ashuganj	3	19	22
	3. Sarail	3	21	24
	4. Bancharampur	4	33	37
	5. Bijoy nagar	3	33	36
	6. Brahmanbaria Sadar	1	56	57
	7. Nasirnagar	5	30	35
	8. Akhaura	2	18	20
	9. Nabinagar	7	44	51
	Total	32	296	328

Source : LGED District Office

**APPENDIX 4.3 Interview Sheet****Interview (part 1)****(1) Habiganj District****Interview Sheet**

No.1

**Part A General**

Name of the enumerator :	Date of the interview
Md. Hafizur Rahman Khan	26/06/2013

Name of the Place : Executive Engineer's Office, LGED, Habiganj.

Name of the respondent : Mr. Rabiul Islam, Executive Engineer, LGED

**Part B Target Area**Seven Districts ; Netrokona, Kishoreganj, Sunamganj, Habiganj, Sylhet, Maulvibazar, Brahmanbaria**Part C Target Facility**

1. Rural Road, 2. Market Facility, 3. Boat Landing Facility and 4. Irrigation Facility

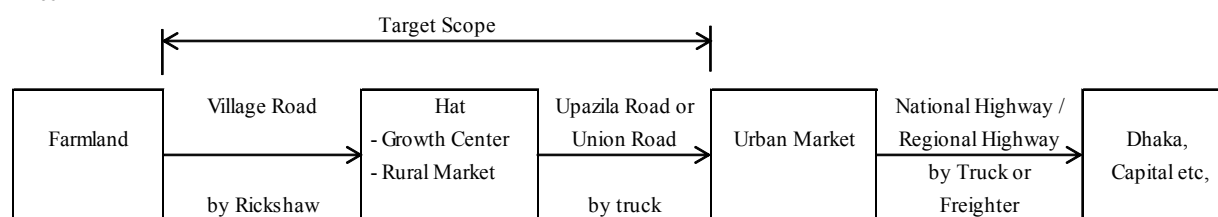
**Part D Interview****D.1 Importance for Distribution of Agricultural & Fishery Products and Household Goods.**

facility	Importance	Reason
Rural Road	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Rural Road carries out a very important part for distribution and Marketing. Good roads have always reduced transportation cost and creates new jobs.
Market Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Developed Market facility carries out important role for economic development of the villagers. They can sale produced commodities and buy their essential commodities in all weather.
Boat Landing Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Hoar area is water logged for more than 7months of the year, during the period only boats become their transport means. Good landing facilities reduce risk of loading and unloading.
Irrigation Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Irrigation is required for cultivation when there no water/ rainfall. In Haor areas when water recedes, they cultivate their fields. If irrigation facilities are provided more land, it will be under cultivation and will get good yield.

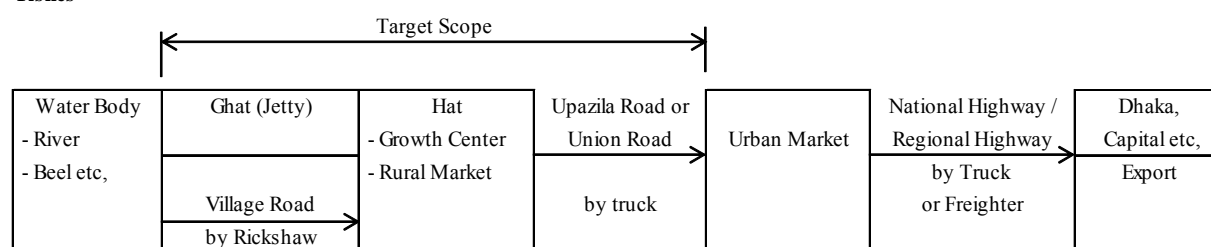


## D.2 Existing Distribution (Mainly)

### Rice



### Fishes



## D.3 Existing and Problem

facility	Existing and Problem
Rural Road	UZR (Upazila Road) is the most important, UNR (Union Road) is less important than UZR and UVR (Village Road) are less important. UZR are 60% Paved, UNR are 40% Paved and UVR are 10% are paved. The most important problems are with unpaved 40% UZR.
Market Facility	Growth Center Market (GCM) is the most important. Rural Markets are less important than GCM. There are 33nos. of GCM. 26 nos. are developed. 21% (7 nos.) of GCM are undeveloped. There are total 177 nos. Rural Markets. Only 3 nos. are developed. The most important problems are with undeveloped 21% GCM.
Boat Landing Facility	Boat Landing Facility also carries outs an important role in the village life in Haor areas. During monsoon season boats are transport means of the village people in Haor area.
Irrigation Facility (Low Lift Pump)	Number of irrigation facility at present is uneconomic. Most of farmers irrigate their lands by pumping water from nearby ditches/channels/rivers. Sometimes ditches and channels gets dried up during dry season then the farmers can't safe their crops.

**(2) Netrokona District****Interview Sheet**

No. 2

**Part A General**

Name of the enumerator :	Date of the interview
Md. Hafizur Rahman Khan	04/07/2013

Name of the Place : Netrokona, LGED  
(Over Telephone)

Name of the respondent : Md, Kamrul Hasan, Executive Engineer, LGED.

**Part B Target Area**

Seven Districts ; Netrokona, Kishoreganj, Sunamganj, Habiganj, Sylhet, Maulvibazar, Brahmanbaria

**Part C Target Facility**

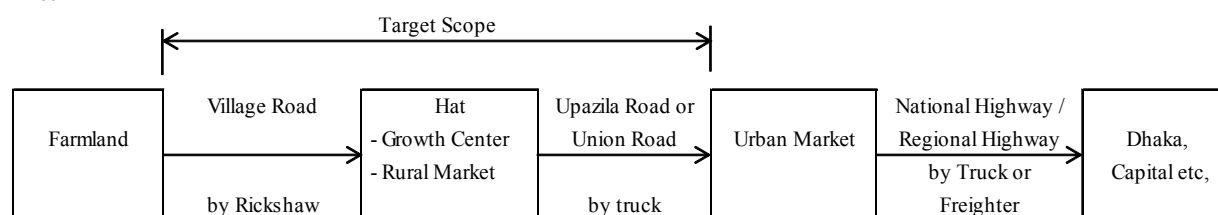
1. Rural Road, 2. Market Facility, 3. Boat Landing Facility and 4. Irrigation Facility

**Part D Interview****D.1 Importance for Distribution of Agricultural & Fishery Products and Household Goods.**

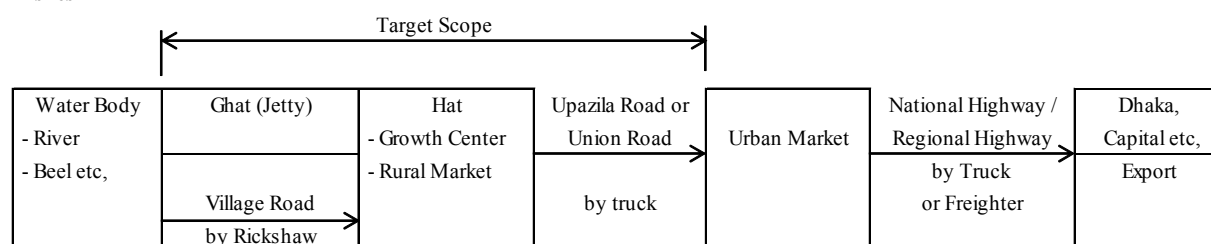
facility	Importance	Reason ( <u>Example</u> )
Rural Roads	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Rural Road carries out a very important part for distribution and Marketing. Good roads have always reduced transportation cost and create new jobs.
Market Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Developed Market facility carries out important role for economic development of the villagers. They can sale produced commodities and buy their essential commodities in all weather.
Boat Landing Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Hoar area is water logged for more than 7months of the year, during the period only boats become their transport means. Good landing facilities reduce risk of loading and unloading.
Irrigation Facility (low Lift Pump)	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Irrigation is required for cultivation when there no water/ rainfall. In Haor areas when water recedes, they cultivate their fields. If irrigation facilities are provided more land, it will be under cultivation and will get good yield.

## D.2 Existing Distribution (Mainly)

### Rice



### Fishes



## D.3 Existing and Problem

facility	Existing and Problem ( <u>Example</u> )
Rural Road	UZR (Upazila Road) is the most important, UNR (Union Road) is less important than UZR and UVR (Village Road) are less important. UZR are 59.% Paved, UNR are 18.% Paved and UVR are 2.7% are paved. The most important problems are with unpaved 41% UZR.
Market Facility	Growth Center Market (GCM) is the most important. Rural Markets are less important than GCM. There are 43nos. of GCM. 30 nos. are developed. 40% (13 nos.) of GCM are undeveloped. There are total 328 nos. Rural Markets. Only 37 nos. are developed. The most important problems are with undeveloped 40% GCM.
Boat Landing Facility	Boat Landing Facility also carries out an important role in the village life in Haor areas. During monsoon season boats are transport means of the village people in Haor area.
Irrigation Facility (Low Lift Pump, Shallow Tubewell)	Number of irrigation facility at present is uneconomic. Most of farmers irrigate their lands by pumping water from nearby ditches/channels/rivers. Sometimes ditches and channels gets dried up during dry season then the farmers can't safe their crops.

**(3) Sunamhanj District**

## Interview Sheet

No. 3

## Part A General

Name of the enumerator :	Date of the interview
Md. Hafizur Rahman Khan	04/07/2013

Name of the Place : Sunamganj, LGED  
(Over Telephone)

Name of the respondent : Md, Iqbal Ahmmed , Executive Engineer, LGED.

## Part B Target Area

Seven Districts ; Netrokona, Kishoreganj, Sunamganj, Habiganj, Sylhet, Maulvibazar, Brahmanbaria

## Part C Target Facility

1. Rural Road, 2. Market Facility, 3. Boat Landing Facility and 4. Irrigation Facility

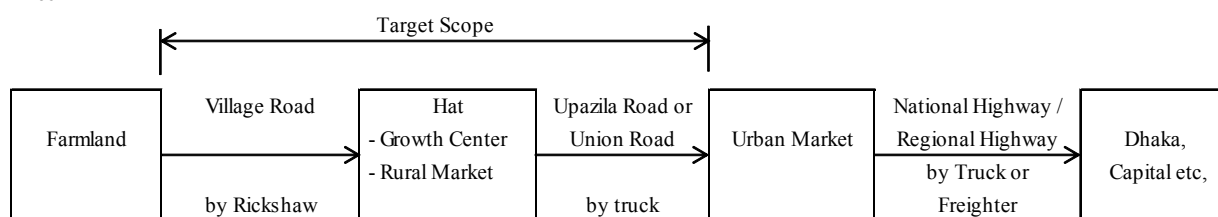
## Part D Interview

## D.1 Importance for Distribution of Agricultural &amp; Fishery Products and Household Goods.

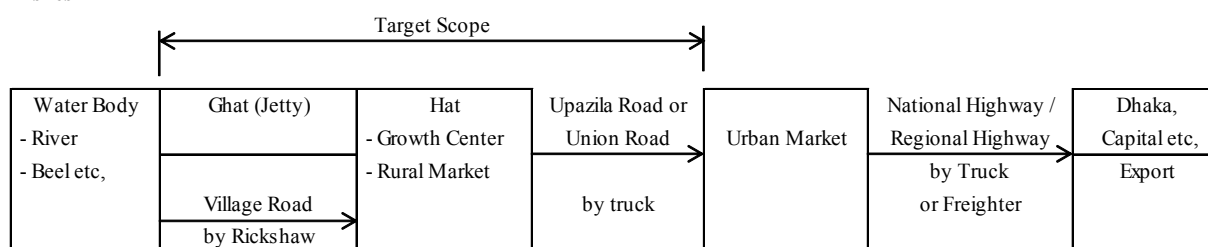
facility	Importance	Reason ( <u>Example</u> )
Rural Roads	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Rural Road carries out a very important part for distribution and Marketing. Good roads have always reduced transportation cost and create new jobs.
Market Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Developed Market facility carries out important role for economic development of the villagers. They can sale produced commodities and buy their essential commodities in all weather.
Boat Landing Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Hoar area is water logged for more than 7months of the year, during the period only boats become their transport means. Good landing facilities reduce risk of loading and unloading.
Irrigation Facility (Low Lift Pump)	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Irrigation is required for cultivation when there no water/ rainfall. Part of district is Haor areas and other Part is high area. If irrigation facilities are provided more land, it will be under cultivation and will get good yield.

## D.2 Existing Distribution (Mainly)

### Rice



### Fishes



## D.3 Existing and Problem

facility	Existing and Problem ( <u>Example</u> )
Rural Road	UZR (Upazila Road) is the most important, UNR (Union Road) is less important than UZR and UVR (Village Road) are less important. UZR are 59% Paved, UNR are 33% Paved and UVR are 8.5% are paved. The most important problems are with unpaved 41% UZR.
Market Facility	Growth Center Market (GCM) is the most important. Rural Markets are less important than GCM. There are 44nos. There are total 216 nos. Rural Markets. The most important problems are with undeveloped GCM.
Boat Landing Facility	Boat Landing Facility also carries out an important role in the village life in Haor areas. During monsoon season boats are transport means of the village people in Haor area.
Irrigation Facility (Low Lift Pump, Shallow Tubewell)	Number of irrigation facility at present is uneconomic. Most of farmers irrigate their lands by pumping water from nearby ditches/channels/streams. Sometimes ditches and channels gets dried up during dry season then the farmers can't save their crops.

**(4) Kishoreganj District****Interview Sheet**

No. 4

**Part A General**

Name of the enumerator :	Date of the interview
Md. Hafizur Rahman Khan	04/07/2013

Name of the Place : Kishoreganj, LGED  
(Over Telephone)

Name of the respondent : Md, Amirul Islam , Senior Assistant Engineer, LGED.

**Part B Target Area**

Seven Districts ; Netrokona, Kishoreganj, Sunamganj, Habiganj, Sylhet, Maulvibazar, Brahmanbaria

**Part C Target Facility**

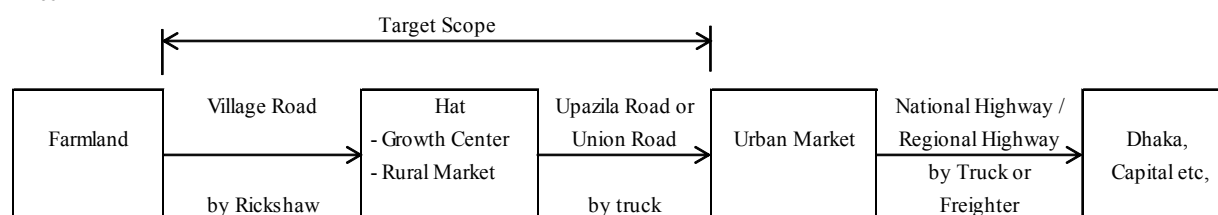
1. Rural Road, 2. Market Facility, 3. Boat Landing Facility and 4. Irrigation Facility

**Part D Interview****D.1 Importance for Distribution of Agricultural & Fishery Products and Household Goods.**

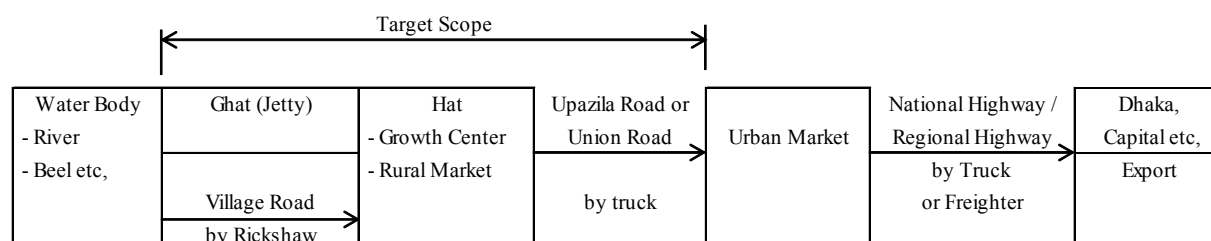
facility	Importance	Reason (Example)
Rural Roads	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Rural Road carries out a very important part for distribution and Marketing. Good roads have always reduced transportation cost and create new jobs.
Market Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Developed Market facility carries out important role for economic development of the villagers. They can sale produced commodities and buy their essential commodities in all weather.
Boat Landing Facility	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Hoar area is water logged for more than 7months of the year, during the period only boats become their transport means. Good landing facilities reduce risk of loading and unloading.
Irrigation Facility (Low Lift Pump)	<input checked="" type="checkbox"/> Very High, <input type="checkbox"/> High, <input type="checkbox"/> Middle, <input type="checkbox"/> Low	Irrigation is required for cultivation when there no water/ rainfall. Part of district is Haor areas and other Part is high area. If irrigation facilities are provided more land, it will be under cultivation and will get good yield.

## D.2 Existing Distribution (Mainly)

### Rice



### Fishes



## D.3 Existing and Problem

facility	Existing and Problem ( <u>Example</u> )
Rural Road	UZR (Upazila Road) is the most important, UNR (Union Road) is less important than UZR and UVR (Village Road) are less important. UZR are 61% Paved, UNR are 32% Paved and UVR are 6.6% are paved. The most important problems are with unpaved 39% UZR.
Market Facility	Growth Center Market (GCM) is the most important. Rural Markets are less important than GCM. There are 47nos. of GCM. There are total 328 nos. Rural Markets. The most important problems are with undeveloped GCM.
Boat Landing Facility	Boat Landing Facility also carries out an important role in the village life in Haor areas. During monsoon season boats are transport means of the village people in Haor area.
Irrigation Facility (Low Lift Pump, Shallow Tubewell)	Number of irrigation facility at present is uneconomic. Most of farmers irrigate their lands by pumping water from nearby ditches/channels/rivers. Sometimes ditches and channels gets dried up during dry season then the farmers can't save their crops.

**Interview (part 2)**

(1) Objective: To collect issues of ghats (boat landing facility)

(2) Target persons:

Survey Team interviewed with the following LGED district Engineers about ghats on November.

No.	District	Name/Position
1	Habiganj	Md, Rabiul Islam, Executive Engineer
2	Netrokona	Md, Kamrul Hasan, Executive Engineer
3	Sunamganj	Md, Iqbal Ahmmed , Executive Engineer
4	Kishoreganj	Md, Amirul Islam , Senior Assistant Engineer

(3) Interview

No.	Question	Habiganj	Netrokona	Sunamganj	Kishoreganj
1-1	Is there shortage of ghats in the district?	Yes	Yes	Yes	Yes
1-2	Number of existing ghats in the district (approximately).	4	20	13	35
1-3	Number of required ghats in the district (approximately).	20	50	66	28
2-1	Is there deterioration of ghats in the district?	No	Yes	Yes	Yes
2-2	Proportion of deteriorated ghats in the district (approximately).	0%	75%	25%	50%
3-1	Existing main type of ghats in the district.	Step and Slope	Step and Slope	Step and Slope	Step and Slope
3-2	Existing material of ghats in the district.	Concrete & Earth	Concrete	Concrete & Earth	Concrete
3-3	Required main type of ghats in the district.	Step and Slope	Step and Slope	Step and Slope	Step and Slope
3-4	Required material of ghats in the district.	Concrete	Concrete	Concrete	Concrete



## APPENDIX 4.4 Field Survey

### Photos

#### Subject : Upazila Road (UZR)

Place : Baniachan Upazila in Habiganj

Date : June 27 2013



UZR

(Baniachang to Borobazar, L=1.75km, LGED)



UZR

(Baniachang to Borobazar, L=1.75km, LGED)

Upazila roads play important roles in distributing food etc. as one of major rural roads.

#### Subject : Village Road

Place : Baniachang Upazila in Habiganj

Date : June 27 2013



Adarshbazar-Takbazkhani Village Road \*  
(LGED)



Adarshbazar-Takbazkhani Village Road \*  
(LGED)

\*Undeveloped Village roads provide low trafficability and therefore transportation is inefficient.

**Subject : Village Road**

Place : Baniachan Upazila in Habiganj

Date : June 27 2013



Village Road (Rantna Rural Market –Muredpur Union Parishad Office, LGED)

Houses are built just close by a Village road passing through a residential area.

Village Road (Rantna Rural Market –Muredpur Union Parishad Office, LGED)

**Subject : Growth Center (GCM)**

Place : Baniachan Upazila in Habiganj

Date : June 27 2013



Borobazar Growth Center (LGED)\*

There are many shops, which play an important role in economic development.



Borobazar Growth Center (LGED)\*

**Subject : Rural Market**



Sutang Rural Market (LGED)

Sheds and toilets are developed in a lot of hat areas.



Sutang Rural Market (LGED)



**Subject : Boat Landing Facility****No.05**

Place : Baniachan Upazila in Habiganj



Kalardoba Boat Landing Facility (Zila Boud)\*  
Ghats are mainly Concrete Step type.



Kalardoba Boat Landing Facility (Zila Boud)\*

**Subject : Boat Landing Facility****No.06**

Place : habiganj-s Upazila in Habiganj



Sutang Bajar Ghat (LGED)\*  
In many case, ghats are constructed together with hats.



Sutang Bajar Ghat (LGED)\*