People's Republic of Bangladesh Ministry of Local Government, Rural Development and Cooperatives Local Government Division Local Government Engineering Department

People's Republic of Bangladesh

Preparatory Survey on the Northern Region Rural Development and Local Governance Improvement Project

Final Report Annexes

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Annex 1

Standards and specifications for roads

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1 Upazila road pavement design

LGED defines five Upazila road pavement and embankment cross-section standards as follows:

- **Design Type 4A:** This pavement has a double lane carriageway to support 301 to 600 commercial vehicles per day. It has a 5.50-m wide pavement with 2.15-m earthen shoulders on each side totaling 9.80-m crest width. Brick-on-end edging (125 mm) is specified to safeguard the pavement.
- The shoulder soil should have a PI value ranging from 8 to 20 compacted to minimum 95% STD.
- **Design Type 4B:** This pavement differs from Type 4A only in that the sub-base and base courses are 150-mm thick rather than 200 mm.
- **Design Type 5A:** This pavement is to support 201 to 300 commercial vehicles per day.
- **Design Type 5B:** This pavement differs from Type 5A only in that the hard shoulder is herringbone bond brick rather than bitumen sealed.
- **Design Type 6:** This pavement is to support 101 to 200 commercial vehicles per day. It has a 3.70-m wide pavement with 1.80-m earthen shoulder on each side totaling 7.30-m crest width.
- Brick-on-end edging (125 mm) is specified to safeguard the pavement.
- The shoulder soil should have a PI value ranging from 8 to 20 compacted to minimum 95% STD.

The five Upazila road pavement Types are illustrated in Figure A1-1 to Figure A1-5, followed by detailed specifications in Table A1-1 Table A1-3.

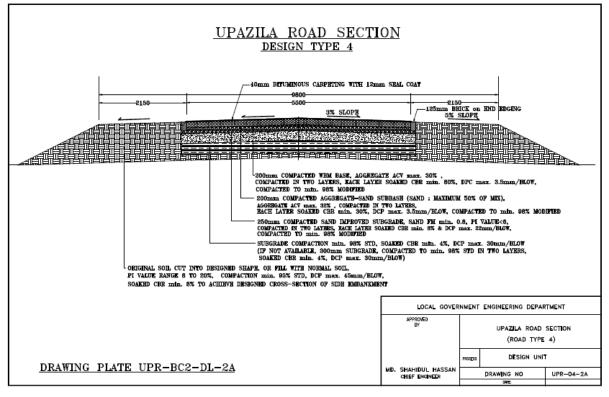


Figure A1-1 Type 4A UZR

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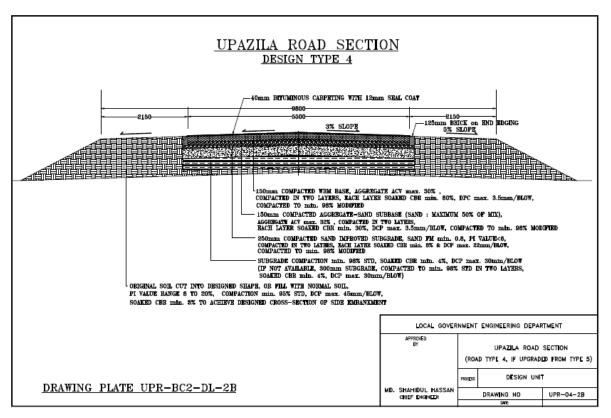


Figure A1-2 Type 4B UZR

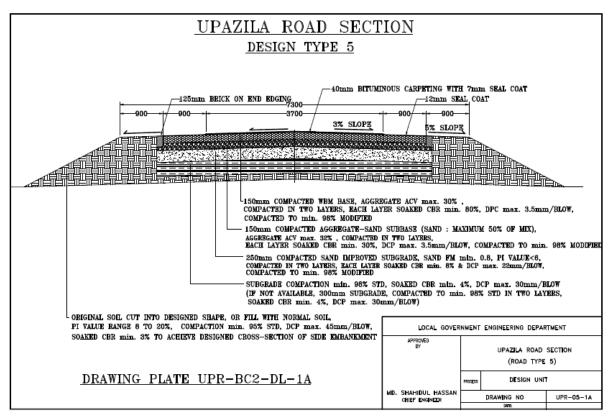


Figure A1-3 Type 5A UZR

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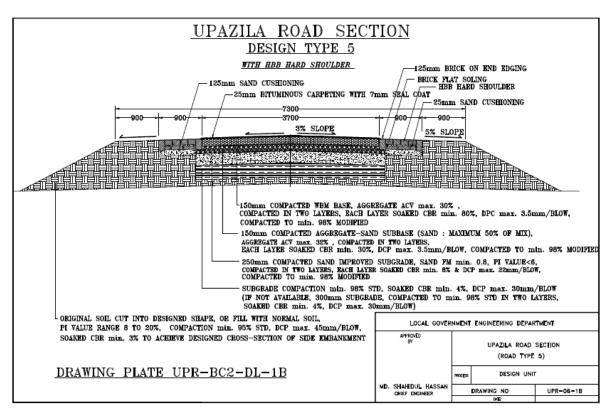


Figure A1-4 Type 5B UZR

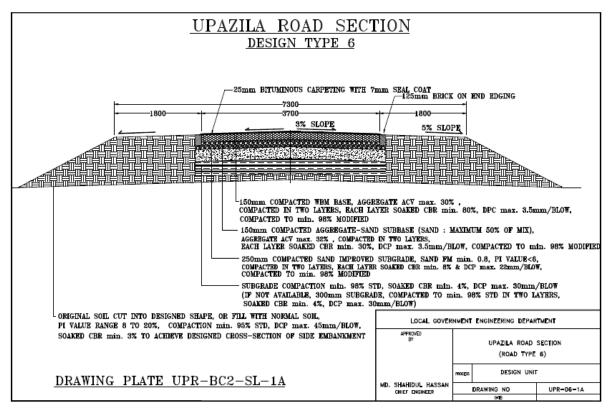


Figure A1-5 Type 6 UZR

Table A1-1 Technical specifications for Type 4 Upazila road

1.	Equivalent Axle Loading	3	8.2 Ton
2.	Traffic	-	301 - 600 CV/Day
3.	Growth rate	-	5%
4.	Design life		10 Years
5.	Embankment fill	3	Min. 95% STD Compaction
			DCP Max 45mm per blow to ensure Min. 3% SOAKED CBR (Ref. Article 1.1)
6.	Sub-Grade, Min 300mm Thick	3	Min. 98% STD Compaction
			DCP Max 30mm per blow to ensure Min 4% SOAKED CBR (Ref. Article 1.2)
7.	Improved Sub-Grade	\$	Min. 98% (Modified) Compaction DCP Max
	Sand FM 0.80 min, PL Value<6		22mm per blow to ensure Min. 8% SOAKED CBR (Ref. Article 1.3)
8.	Aggregate-Sand Sub-Base Course (Sand	;	Min. 98% (Modified) Compaction DCP Max
	: Max. 50% of mix) Brick or Stone Aggregates, 38mm downgraded according to the prescribed grading envelop, ACV <32%; Sand FM 0.80 min, PI Value<6)		9mm per blow to ensure Min. 30% SOAKED CBR (Ref. Article 5.0)
9.	Base-Course, Water Bound Macadam with Brick or Stone Aggregate, 38mm downgraded according to the prescribed grading envelop, ACV <30%; Sand FM 0.80 min, PI Value<6)	a.	Min. 98% (Modified) Compaction DCP Max 3.5mm per blow to ensure Min. 80% SOAKED CBR (Ref. Article 6.0)
10.	Bituminous carpeting	4	40mm BC (Ref. Article 10.0) plus 12mm Seal coat (Ref. Article 12.0)
11.	Double Lane Carriageway width	1	5.5m.
12.	Earthen Shoulder	U	95% STD Compaction DCP Max 45mm per blow to ensure Min 3% SOAKED CBR (Ref. Article 1.1)
13.	Crest width	2	9.80m.
14.	Side Slope	ż	1: 1.5 for clayey soil Road Embankment
		-	1:2 for Clayey Sand Road Embankment
		ŝ	1:3 for Sand or silty Sand Road Embankment

Note: In absence of ACV testing equipment, LAA test of coarse aggregates shall be carried out provided LAA value of coarse aggregates should be less than 40 percent.

.

Table A1-2 Technical specifications for Type 5 Upazila road

DESIGN TYPE 5

1.	Equivalent Axle Loading	1	8.2 Ton
2.	Traffic	\$	201 - 300 CV/Day
3.	Growth rate	1	5%
4.	Design life	:	10 Years
5.	Embankment fill	3	Min. 95% STD Compaction
			DCP Max 45mm per blow to ensure Min. 3% SOAKED CBR (Ref. Article 1.1)
6.	Sub-Grade, Min 300mm Thick	3	Min. 98% STD Compaction
			DCP Max 30mm per blow to ensure Min 4% SOAKED CBR (Ref. Article 1.2)
7.	Improved Sub-Grade Sand FM 0.80 min, PL Value<6	đ	Min. 98% (Modified) Compaction DCP Max 22mm per blow to ensure Min. 8% SOAKED CBR (Ref. Article 1.3)
8.	Aggregate-Sand Sub-Base Course (Sand : Max. 50% of mix) Brick or Stone Aggregates, 38mm downgraded according to the prescribed grading envelop, ACV <32%; Sand FM 0.80 min, PI Value<6)	:	Min. 98% (Modified) Compaction DCP Max 9mm per blow to ensure Min. 30% SOAKED CBR (Ref. Article 5.0)
9.	Base-Course, Water Bound Macadam with Brick or Stone Aggregate, 38mm downgraded according to the prescribed grading envelop, ACV <30%; Sand FM 0.80 min, PI Value<6)	*	Min. 98% (Modified) Compaction DCP Max 3.5mm per blow to ensure Min. 80% SOAKED CBR (Ref. Article 6.0)
10.	Bituminous carpeting	11	40mm BC (Ref. Article 10.0) plus 7mm Seal coat (Ref. Article 11.0)
11.	Single Lane Carriageway width	3	3.7m.
12.	Hard Shoulder	3	0.90 Wide Pavement Simile with 12 mm Seal Coat (Ref. Article 12.0)
12.	Earthen Shoulder	đ	95% STD Compaction DCP Max 45mm per blow to ensure Min 3% SOAKED CBR (Ref. Article 1.1)
14.	Crest width	3	7.30m.
15.	Side Slope	3	1: 1.5 for clayey soil Road Embankment
		÷	1:2 for Clayey Sand Road Embankment
		÷	1:3 for Sand or silty Sand Road Embankment

Note: In absence of ACV testing equipment, LAA test of coarse aggregates shall be carried out provided LAA value of coarse aggregates should be less than 40 percent.

Table A1-3 Technical specifications for Type 6 Upazila road

DESIGN TYPE 6

1.	Equivalent Axle Loading	:	8.2 Ton
2.	Traffic	:	101 to 200 CV/Day
3.	Growth rate	1	5%
4.	Design life		10 Years
5.	Embankment fill		Min. 95% STD Compaction DCP Max 45mm per blow to ensure Min. 3% SOAKED CBR (Ref. Article 1.1)
6.	Sub-Grade, Min 300mm Thick	;	Min. 98% STD Compaction DCP Max 30mm per blow to ensure Min. 4% SOAKED CBR (Ref. Article 1.2)
7.	Improved Sub-Grade Sand FM 0.80 min, PL Value<6	:	Min. 98% (Modified) Compaction DCP Max 22mm per blow to ensure Min. 8% SOAKED CBR (Ref. Article 1.3)
8.	Aggregate-Sand Sub-Base Course (Sand : Max. 50% of mix) Brick or Stone Aggregates, 38mm downgraded according to the prescribed grading envelop, ACV <32%; Sand FM 0.80 min, PI Value<6)	:	Min. 98% (Modified) Compaction DCP Max 9mm per blow to ensure Min. 30% SOAKED CBR (Ref. Article 5.0)
9.	Base-Course, Water Bound Macadam with Brick or Stone Aggregate, 38mm downgraded according to the prescribed grading envelop, ACV <30%; Sand FM 0.80 min, PI Value<6)	1	Min. 98% (Modified) Compaction DCP Max 3.5mm per blow to ensure Min. 80% SOAKED CBR (Ref. Article 6.0)
10.	Bituminous carpeting	1	25mm BC (Ref. Article 10.0) plus 7mm Seal coat (Ref. Article 11.0)
11.	Single Lane Carriageway width	4	3.7m.
12.	Earthen Shoulder		95% STD Compaction DCP Max 45mm per blow to ensure Min 3% SOAKED CBR (Ref. Article 1.1)
13.	Crest width	1	7.30m.
14.	Side Slope	3	1: 1.5 for clayey soil Road Embankment
		;	1:2 for Clayey Sand Road Embankment
		:	1:3 for Sand or silty Sand Road Embankment

Note: In absence of ACV testing equipment, LAA test of coarse aggregates shall be carried out provided LAA value of coarse aggregates should be less than 40 percent.

2 Union road pavement design

LGED defines two Union road pavement and embankment cross-section standards.

Design Type 7: This pavement has a single carriageway to support 51 to 100 commercial vehicles per day. It has a 3.70-m wide pavement with 0.90-m earthen shoulders on each side totalling 5.50-m crest width. Brick-on-end edging (125 mm) is specified to safeguard the pavement.

The shoulder soil should have a PI value ranging from 8 to 20 compacted to minimum 95% STD.

Design Type 8: This pavement has a single carriageway to support up to 50 commercial vehicles per day. It has a 3.00-m wide pavement with 1.25-m earthen shoulder on each side totalling 5.50-m crest width.

Brick-on-end edging (125 mm) is specified to safeguard the pavement.

The shoulder soil should have a PI value ranging from 8 to 20 compacted to minimum 95% STD.

The two Upazila road pavement Types are illustrated in Figure A1-6 and Figure A1-7, followed by detailed specifications in Table A1-4 and Table A1-5.

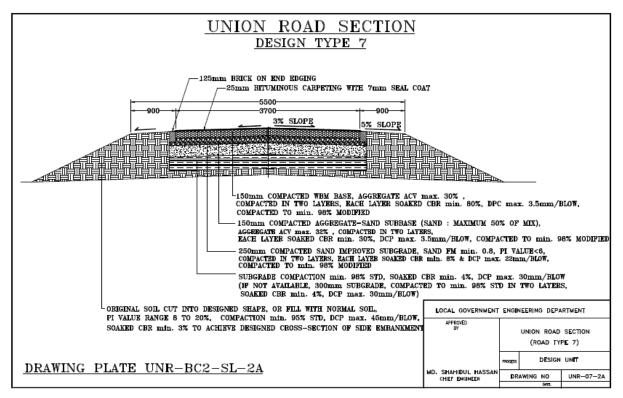


Figure A1-6 Type 7 UNR

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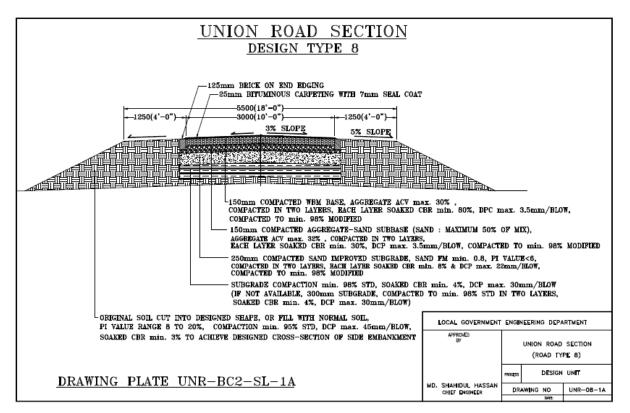


Figure A1-7 Type 8 UNR

Table A1-4 Technical specifications for Type 7 Union road

DESIGN TYPE 7

- 1. Equivalent Axle Loading
- 2. Traffic
- 3. Growth rate
- 4. Design life
- 5. Embankment fill
- 6. Sub-Grade, Min 300mm Thick
- Improved Sub-Grade Sand FM 0.80 min, PL Value<6
- 8. Aggregate-Sand Sub-Base Course (Sand

: Max. 50% of mix) Brick or Stone Aggregates, 38mm down graded according to the prescribed grading envelop, ACV <32%; Sand FM 0.80 min, PI Value<6)

- Base-Course, Water Bound Macadam with Brick or Stone Aggregate, 38mm down graded according to the prescribed grading envelop, ACV <30%; Sand FM 0.80 min, PI Value<6)
- 10. Bituminous carpeting
- 11. Single Lane Carriageway width
- 12. Earthen Shoulder
- 13. Crest width
- 14. Side Slope

- : 8.2 Ton
- : 51 100 CV/Day
- : 5%
- : 10 Years
- : Min. 95% STD Compaction

DCP Max 45mm per blow to ensure Min. 3% SOAKED CBR (Ref. Article 1.1)

: Min. 98% STD Compaction

DCP Max 30mm per blow to ensure Min 4% SOAKED CBR (Ref. Article 1.2)

- : Min. 98% (Modified) Compaction DCP Max 22mm per blow to ensure Min. 8% SOAKED CBR (Ref. Article 1.3)
- Min. 98% (Modified) Compaction DCP Max
 9mm per blow to ensure Min. 30% SOAKED
 CBR (Ref. Article 5.0)
- Min. 98% (Modified) Compaction DCP Max
 3.5mm per blow to ensure Min. 80%
 SOAKED CBR (Ref. Article 6.0)
- 25mm BC (Ref. Article 10.0) plus 7mm Seal coat (Ref. Article 11.0)
- : 3.7m.
- : 95% STD Compaction DCP Max 45mm per blow to ensure Min 3% SOAKED CBR (Ref. Article 1.1)
- : 5.50m
- : 1: 1.5 for clayey soil Road Embankment
- : 1:2 for Clayey Sand Road Embankment
- 1:3 for Sand or silty Sand Road Embankment

Table A1-5 Technical specifications for Type 8 Union road

DESIG	N TYPE 8				
1.	Equivalent Axle Loading		ż	8.2 Ton	
2.	Traffic		÷	01 - 50 CV/Day	
3.	Growth rate		k	5%	
4,	Design life		÷.	10 Years	
5.	Embankment fill		2	Min. 95% STD Compaction	
				DCP Max 45mm per blow to ensure Min. 3% SOAKED CBR (Ref. Article 1.1)	
6.	Sub-Grade, Min 300mm Thick		ż.	Min. 98% STD Compaction	
				DCP Max 30mm per blow to ensure Min 4% SOAKED CBR (Ref. Article 1.2)	
7.	Improved Sub-Grade		;	Min. 98% (Modified) Compaction DCP Max	
	Sand FM 0.80 min, PL Value<6			22mm per blow to ensure Min. 8% SOAKED CBR (Ref. Article 1.3)	
8.	Aggregate-Sand Sub-Base Course (Sand		2	Min. 98% (Modified) Compaction DCP Max	
	: Max. 50% of mix) Brick or Stone Aggregates, 38mm down graded according to the prescribed grading envelop, ACV <32%; Sand FM 0.80 min, PI Value<6)			9mm per blow to ensure Min. 30% SOAKED CBR (Ref. Article 5.0)	
9.	Base-Course, Water Bound Macadam with Brick or Stone Aggregate, 38mm downgraded according to the prescribed grading envelop, ACV <30%; Sand FM 0.80 min, PI Value<6)		1	Min. 98% (Modified) Compaction DCP Max 3.5mm per blow to ensure Min. 80% SOAKED CBR (Ref. Article 6.0)	
10.	Bituminous carpeting		:	25mm BC (Ref. Article 10.0) plus 7mm Seal coat (Ref. Article 11.0)	
11.	Double Lane Carriageway width		÷	3.0m.	
12.	Earthen Shoulder		44	95% STD Compaction DCP Max 45mm per blow to ensure Min 3% SOAKED CBR (Ref. Article 1.1)	
13.	Crest width		:	3.0m	
14.	Side Slope		3	1: 1.5 for clayey soil Road Embankment	
		5		1:2 for Clayey Sand Road Embankment	
		2		1:3 for Sand or silty Sand Road Embankment	

3 Possible modifications to the rural road pavement design

Under the existing design standards, the road pavement is constructed by box-cutting the completed embankment, and then 'inserting' the successive pavement layers, each of which is the same width. This method could be improved by the following:

- Constructing the pavement and the adjacent compacted embankment layer-by-layer, with each pavement layer extended 250-mm on either side beyond the layer above.
- Inserting sub-grade sand drains at 7.5-m intervals along each side of the embankment to take

away water that would otherwise penetrate into the pavement. Sub-grade drains were used in the past, but were abandoned because it was difficult to prevent them becoming blocked. However, this problem can now be overcome by covering the drains with geotextile material.

These possible changes to the pavement specification are illustrated for Type 4A, 5A and 6 Upazila roads in Figure A1-8 to Figure A1-10, and for Type 7 and 8 Union roads Figure A1-11 and Figure A1-12. These modifications would result in some increase in the pavement cost. A detailed comparison of the pavement costs for the existing and modified Type 5A pavements, for the four cost regions in the Project area, is in Table A1-6 and Table A1-7.

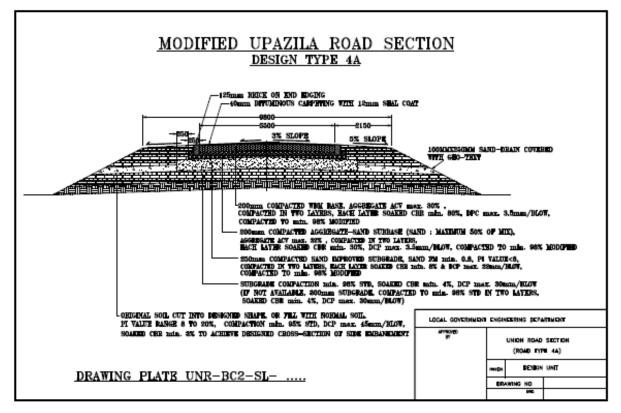


Figure A1-8 Possible modified pavement design, Type 4A

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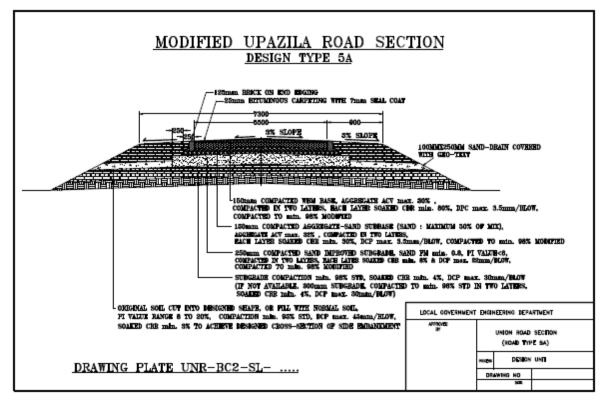


Figure A1-9 Possible modified pavement design, Type 5A

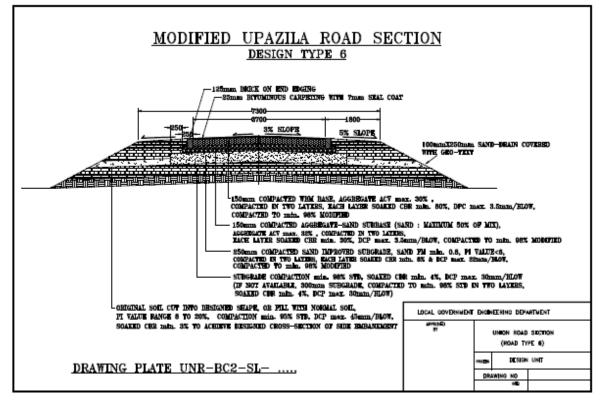


Figure A1-10 Possible modified pavement design, Type 6

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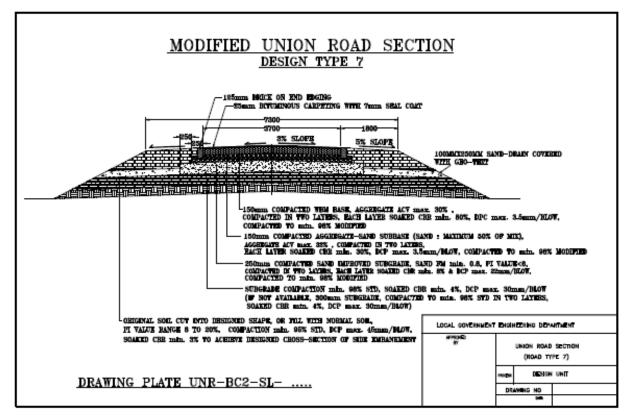


Figure A1-11 Possible modified pavement design, Type 7

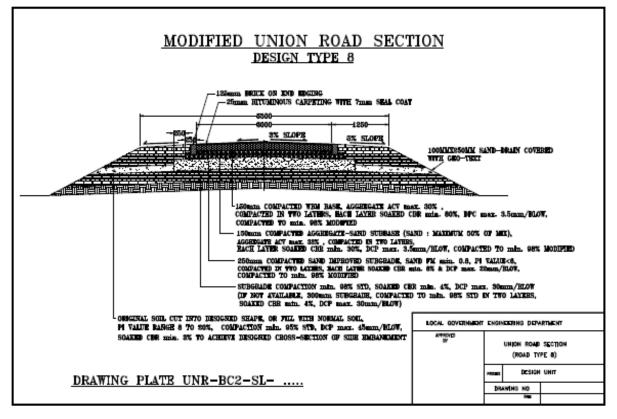


Figure A1-12 Possible modified pavement design, Type 8

~					Schedule of Rate 2011/12 (BDT)									
Sl. no	Item code.	Description	Unit	Quantity	Myme	nshingh Region	T	angail Region	Ra	ngpur Region	Dinajpur Region			
по					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount		
	3.1.04	Earth work in box cutting on road crest up to 450 mm depth	Sqm	5500	50.15	275,825.00	50.15	275,825.00	49.06	269,830.00	47.37	260,535.00		
	3.2.15.02	Brick on end edging (125 mm across)	m	2000	119.92	239,840.00	114.71	229,420.00	114.82	229,640.00	104.32	208,640.00		
3	3.1.06.02	Sand (F.M. 0.80)filling on the road bed in the improved sub- grade with sand free from dust	Cum	1450	487.55	706,947.50	487.55	706,947.50	422.15	612,117.50	334.13	484,488.50		
4	3.2.02.02	Providing compacted aggregate sand sub-base course with 38 mm downgraded 1 st class bricks /nicked chins	Cum	1160	2,334.90	2,708,484.00	2,260.69	2,622,400.40	2,215.83	2,570,362.80	2,013.41	2,335,555.60		
5	3.2.03.06	Providing, laying, spreading and compacted 38 mm downgraded aggregate as spcified in the relevent item of LGED road desin standard or wet. mix macadam	Cum	825	3,742.06	3,087,199.50	3,597.01	2,967,533.25	3,578.67	2,952,402.75	3,289.68	2,713,986.00		
6	3.2.24.01	Providing tack coat with 60/70 or 80/100 penetration grade	Sqm	3700	69.51	257,187.00	69.51	257,187.00	69.02	255,374.00	68.40	253,080.00		
7	3.2.25	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	Sqm	5500	88.35	485,925.00	88.35	485,925.00	88.14	484,770.00	87.89	483,395.00		
8	3.2.30.1	40 mm thick (compacted) pre- mixed bituminous carpeting to be prepared using 20 mm down stone chips	Sqm	3700	520.94	1,927,478.00	509.78	1,886,186.00	481.97	1,783,289.00	478.63	1,770,931.00		
9	3.2.39	12 mm thick (compacted)pre- mixed bituminous seal coat	Sqm	1800	218.56	393,408.00	218.56	393,408.00	208.84	375,912.00	207.44	373,392.00		
10	3.2.34	7 mm thick (compacted)pre-mixed bituminous seal coat	Sqm	3700	115.48	427,276.00	115.48	427,276.00	111.47	412,439.00	110.67	409,479.00		
					Total	10,509,570.00	Total	10,252,108.15	Total	9,946,137.05	Total	9,293,482.10		

Table A1-6 Estimated cost of existing Type 5A pavement in four regions

~1	T.							Schedule of Rate	2011/12 (BE	DT)		
Sl. no	Item code.	Description	Unit	Quantity	Mymenshingh Region Tangail Region					ngpur Region	Dinajpur Region	
110	couc.				Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	3.1.04	Earth work in box cutting on road crest up to 450 mm depth	Sqm	5500	50.15	275,825.00	50.15	275,825.00	49.06	269,830.00	47.37	260,535.00
	2	Brick on end edging (125 mm across)	m	2000	119.92	239,840.00	114.71	229,420.00	114.82	229,640.00	104.32	208,640.0
3	3.1.06.0 2	Sand (F.M. 0.80)filling on the road bed in the improved sub- grade with sand free from dust	Cum	1638	487.55	798,363.13	487.55	798,363.13	422.15	691,270.63	334.13	547,137.8
4	3.2.02.0 2	Providing compacted aggregate sand sub-base course with 38 mm downgraded 1 st class bricks /nicked chins	Cum	1210	2,334.90	2,825,229.00	2,260.69	2,735,434.90	2,215.83	2,681,154.30	2,013.41	2,436,226.1
5	3.2.03.0 6	Providing, laying, spreading and compacted 38 mm downgraded aggregate as spcified in the relevent item of LGED road desin standard or wet, mix macadam	Cum	825	3,742.06	3,087,199.50	3,597.01	2,967,533.25	3,578.67	2,952,402.75	3,289.68	2,713,986.0
6	3.2.24.0 1	Providing tack coat with 60/70 or 80/100 penetration grade	Sqm	3700	69.51	257,187.00	69.51	257,187.00	69.02	255,374.00	68.40	253,080.0
7	3.2.25	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	Sqm	5500	88.35	485,925.00	88.35	485,925.00	88.14	484,770.00	87.89	483,395.0
8	3.2.30.1	40 mm thick (compacted) pre- mixed bituminous carpeting to be prepared using 20 mm down stone chips	Sqm	3700	520.94	1,927,478.00	509.78	1,886,186.00	481.97	1,783,289.00	478.63	1,770,931.0
9	3.2.39	12 mm thick (compacted)pre- mixed bituminous seal coat	Sqm	1800	218.56	393,408.00	218.56	393,408.00	208.84	375,912.00	207.44	373,392.0
0	3.2.34	7 mm thick (compacted)pre-mixed bituminous seal coat	Sqm	3700	115.48	427,276.00	115.48	427,276.00	111.47	412,439.00	110.67	409,479.0
11		Sand Drain	LS	133	500.00	66,500.00	500.00	66,500.00	500.00	66,500.00	500.00	66,500.0
_					Total	10,784,230.63	Total	10,523,058.28	Total	10,202,581.68	Total	9,523,301.9

Table A1-7 Estimated cost of modified Type 5A pavement in four regions

Price of geo-text =120 and Sand FM 2.5 =380

Quantity of items 3 & 4 have increased, all other items will remain same

4 LGED standard designs for cross-drainage structures

Standard LGED designs for cross-drainage structures, as specified in their structures manuals, are illustrated here: a double-lane bridge in Figure A1-13, a double-lane three-vent box culvert in Figure A1-14, a slab culvert in Figure A1-15, and a single-vent pipe culvert in Figure A1-16.

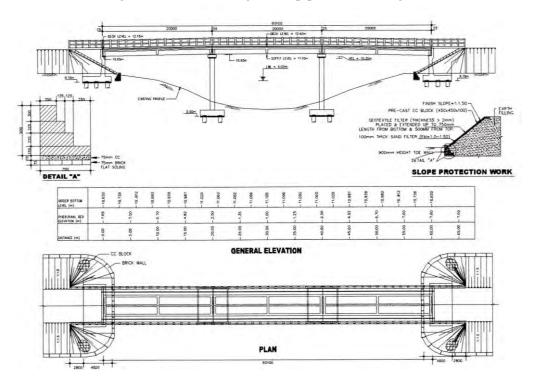


Figure A1-13 Double-lane bridge

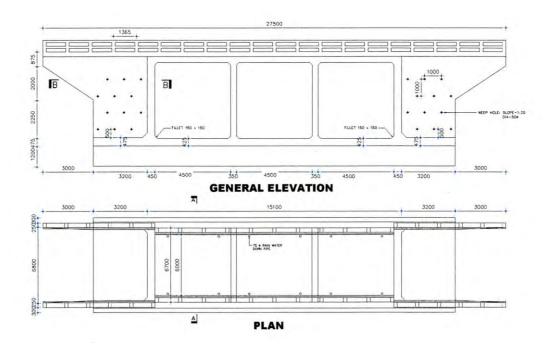


Figure A1-14 Double-lane three-vent box culvert

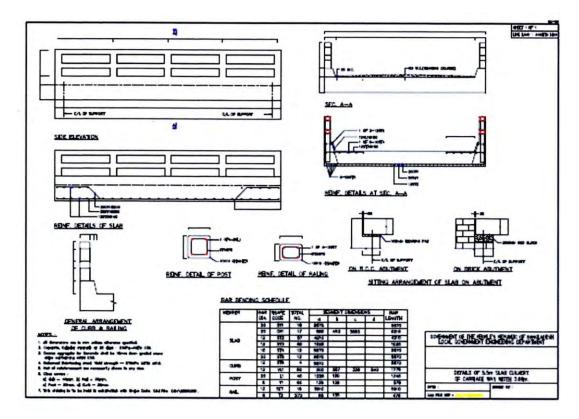


Figure A1-15 Slab culvert

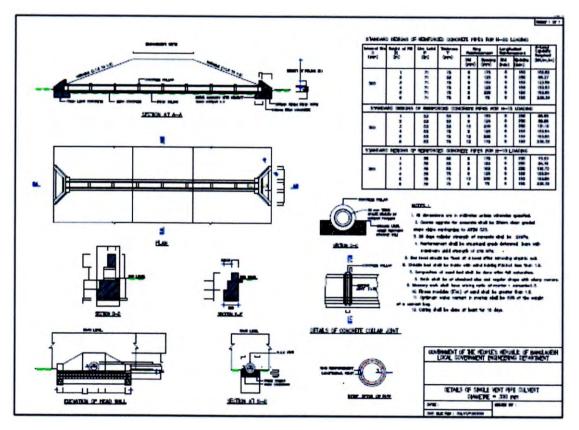


Figure A1-16 Single-vent pipe culvert

5 Submersible roads and flash-flood refuges

Figure A1-17 shows the standard LGED design for a submersible road. Figure A1-18 and Figure A1-19 show the standard designs for shelters and cattle sheds on flash-flood refuges.

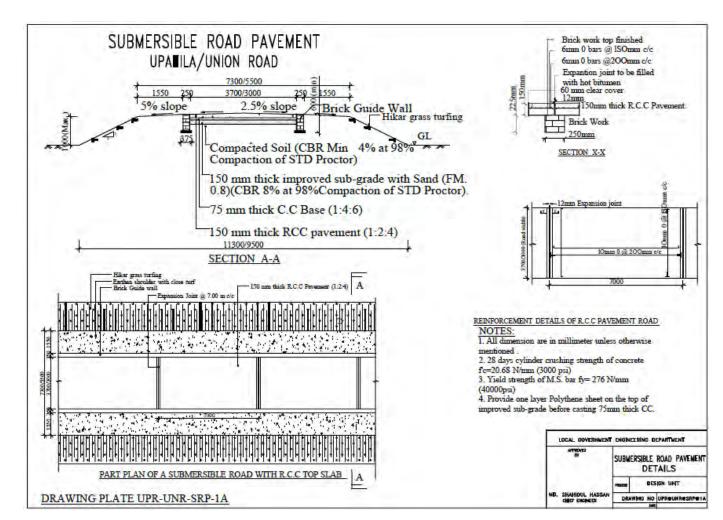


Figure A1-17 Submersible road

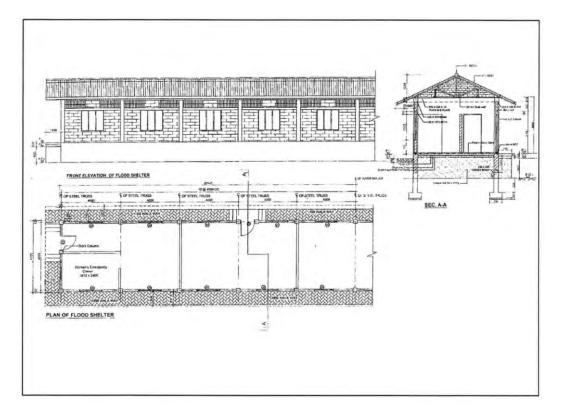


Figure A1-18 Flood shelter

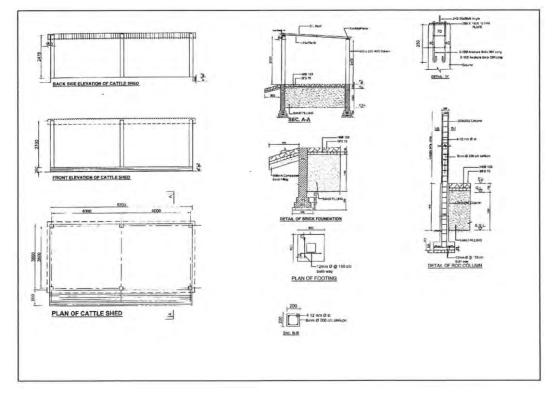


Figure A1-19 Cattle shed

Annex 2

Standards for markets and ghats

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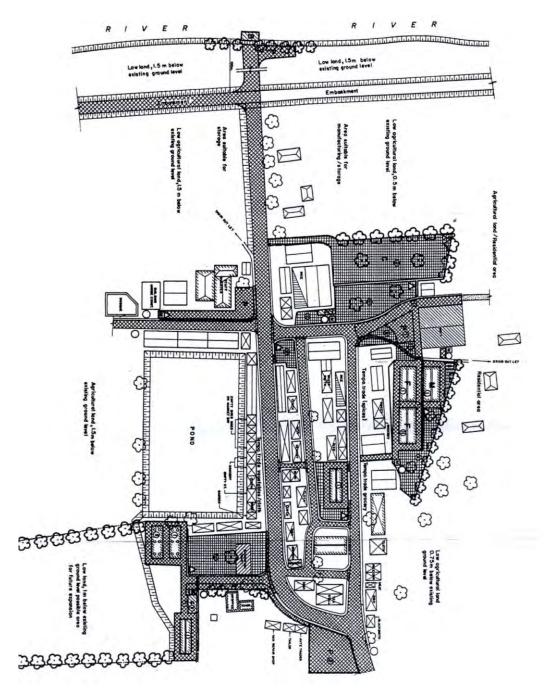
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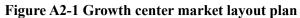
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Figure A2-4 Toilet block	4
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Figure A2-6 Market Management Committee office	6

1 Growth Center market layout plan

Figure A2-1 presents a sample standard Growth Center market layout plan, from the LGED Manual for Growth Centre Planning.





2 Examples of improved market facilities

Standard designs for multi-purpose selling shed, fish-selling shed, toilet block, Women's Market Section (WMS), and Market Management Committee (MMC) office are in Figure A2-2 to Figure A2-6.

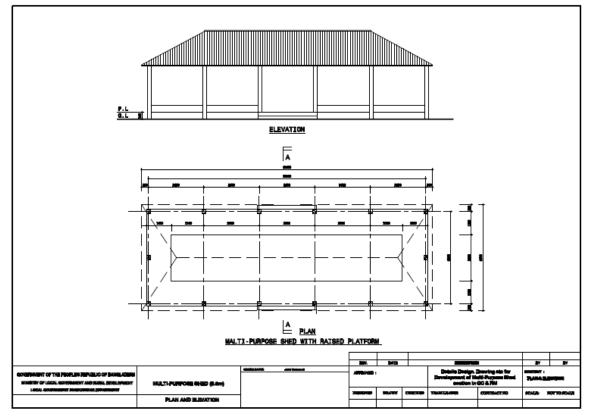


Figure A2-2 Multi-purpose selling shed

Annexes of Final Report

Figure A2-3 Fish selling shed

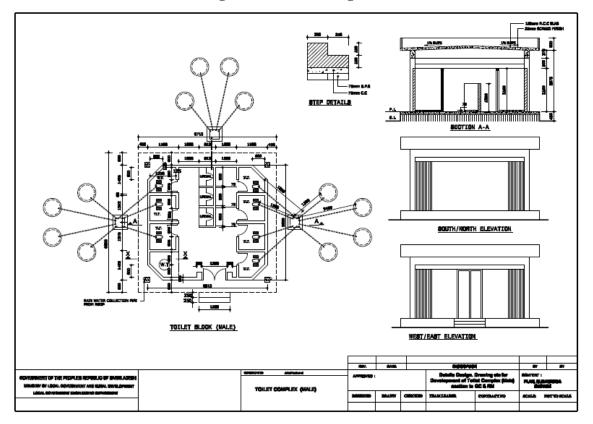


Figure A2-4 Toilet block

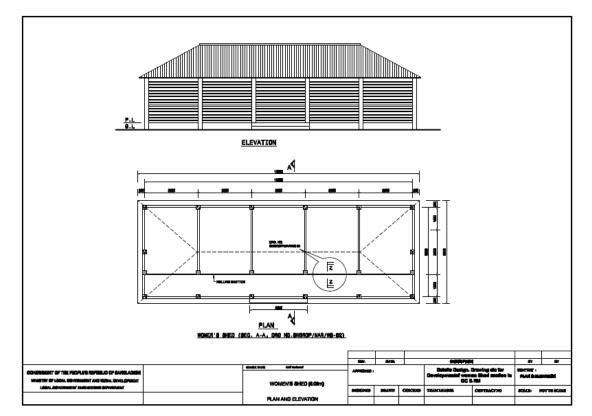
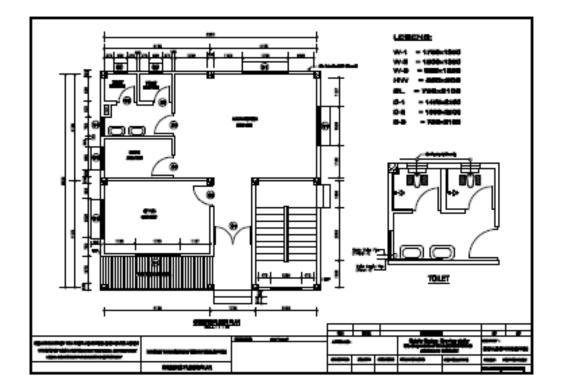


Figure A2-5 Women's Market Section



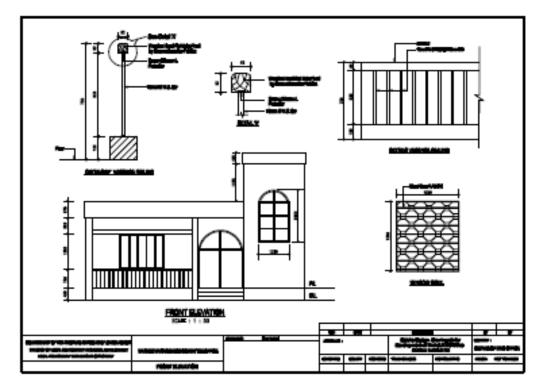


Figure A2-6 Market Management Committee office

Annex 3

Costs-LGED schedules of rates, unit cost analysis, and assessment of cost implications of different pavement standards

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1 Costs-LGED schedules of rates and market prices

The unit rates of major construction materials and labor cited in the Schedule of Rates for four regions, i.e., Mymensingh, Tangail, Rangpur, and Dinajpur, published by LGED in 2012, and the market prices of each region in March 2012, are compared for analysis. The results are shown in Table A3-1 and Table A3-2.

Table A3-1 Rate con	nparison for m	aior construction	n items of Tang	ail and Mvme	ensingh regions
		··· j • - • • • • • • • • • • • • • • • • •			

		Mv	mensingh Ro	ogian	Tangail Region			
Sl. No	Basic Item	Unit	LGED Schedule of Rates 2012 (BDT)	Market price in March 2012 (BDT)	The gap between two prices	LGED Schedule of Rates 2012 (BDT)	Market price in March 2012 (BDT)	The gap between two prices
Const	truction Materials			(===)			(===)	
1	1 st class bricks	each	7.00	7.00	0%	6.75	6.75	0 %
2	1st class brick chips (12mm downgraded)	cu.m				2,310	2,450	6.06%
3	1 st class brick chips (20mm downgraded)	cu.m	2,290	2,350	2.62%	2,210	2,400	8.60%
4	1 st class picked brick bats	cu.m				1,230	1,236	0.49%
5	Stone chips (12 mm downgraded)	cu.m				3,500	4,150	18.57%
6	Stone shingles (20 mm downgraded)	cu.m	2,400	2,030	-2.92%	2,500	2,500	0%
7	Stone chips (20 mm downgraded)	cu.m	3,900	4,590	17.69%	4,000	4,590	14.75%
8	Crushed Stone	cu.m	-			2,500	2,200	-12 %
9	Sand (FM-1.2)	cu.m	525	460	-14.13%	525	460	- 12.38 %
10	Sand (FM-0.5)	cu.m	325			325	400	23.08 %
11	Sand (FM-0.8)	cu.m	350	530	51.43%	350	450	28.57 %
12	Sand (FM-1.0)	cu.m	425	650	52.94%	425	500	17.65 %
13	Sand (FM-1.5)	cu.m	625	575	-8.00%		600	-4 %
14	Sand (FM-1.8)	cu.m	1.055	1.025	2.520/	675	700	3.70 %
15	Sand (FM-2.5)	cu.m	1,075	1,035	-3.72%	1,125	1,236	9.87 %
16	Sand (FM-2.8)	cu.m	71.50	(5	0.000/	1,125	1,236	9.87 %
17	Bitumen	kg	71.50 65	<u>65</u> 68	-9.09% 4.62%	71.50 65	<u>65</u> 62	-9.09 % -4.61 %
$\frac{18}{19}$	Kerosene Fire wood	liter	7.56	8.30	9.79%	7.56	7.56	-4.61 %
20	Royalty of earth	kg	28	25	-10.71%	28	30	7.14 %
20	Empty gunny bag	cu.m each	20	23	-10./1/0	28	15	-25 %
22	Geo Textile (grade-1)	sq.m				65	60	- 7.69 %
23	Barak bamboo (75mm-100mm)	m				30	25	-16.67 %
24	Cement	bag	480	500	4.17%	480	480	0 %
25	Diesel	liter	61	68	11.47%	61	62	1.64 %
26	Lubricant	liter	195	295	51.28%	195	200	2.56 %
27	MS Rod(plain,40 grade)	kg	60	65	8.33%	60	60	0 %
28	MS Deformed rod (40 grade)	kg	60	72	20.00%	60	68	13.38%
29	MS Rod (plain,60 grade, billet)	kg				70	70	0 %
30	MS angle, flat bar	kg	65	70	7.69%	65	65	0 %
31	MS plate (8mm thick)	kg	90	104	15.56%			
32	GI wire (10BWG)	kg		85			70	
Labo			-			1		
1	Head mason	day	450	400	-11.11%	450	400	-11.11 %
2	Mason	day	400	350	-12.50%	400	350	-12.50%
3	Skilled labor	day	300	280	-6.67%	300	300	0 %
4	Ordinary labor	day	250	250	0%	250	250	0%
	Sarder	day	400	350	-12.50%	400	400	0%
6	Rod mistry	day	400	300	-25%	400	400	0 %

Source: LGED Schedule of Rates July 2012, and Basic Item's Market Rate March/April 2012 of Mymensingh and Tangail regions

	-		Ŭ			••		U	
				Rangpur Regio	n	Dinajpur Region			
SI. No	Basic Item	Unit	LGED Schedule of Rates 2012 (BDT)	Market price in March 2012 (BDT)	The gap between two prices	LGED Schedule of Rates 2012 (BDT)	Market price in March 2012 (BDT)	The gap between two prices	
Construc	tion Materials								
	st class bricks	each	6.25	7.00	12%	6.00	6.00	0%	
	st class brick chips 2mm downgraded)	cu.m	2,160			1840			
	st class brick chips 20mm downgraded)	cu.m	2,060			1,985	2,030	2.27%	
4 ba	st class picked brick	cu.m	1,170			1,125	1,079	-4.09%	
5 da	tone chips (12 mm owngraded)	cu.m	2,900	3,354	15.65%	2,800	2,825	0.89%	
6 do	tone shingles (20 mm owngraded)	cu.m	2,200	3,708	18.5%	2100	2,090.65	- 0.47%	
/ do	tone chips (20 mm owngraded)	cu.m	3,400			3,300	3,245	-1.67%	
	rushed Stone	cu.m	2,400			2,300			
	and (FM-1.2)	cu.m	475	430	-9.47%	500	460	-8.00%	
	and (FM-0.5)	cu.m	300			250	180	-28.00%	
	and (FM-0.8)	cu.m	325	353	8.61%	275	205	-25.45%	
	and (FM-1.0)	cu.m	375			300	215	-28.33%	
	and (FM-1.5)	cu.m	525			550	515	-6.36%	
	and (FM-1.8)	cu.m	625	706	12.96%	675	630	-6.67%	
	and (FM-2.5)	cu.m	925	882	-4.65 %	860			
	and (FM-2.8)	cu.m	925		< 1 7 0 (860	=	2 500/	
	itumen	kg	72	76.66	6.47 %	72	70	-2.78%	
	erosene	liter	65	65	0%	65	61.50	-5.38%	
	ire wood	kg	7.56	9	19,05%	7.56	7.56	0.00%	
	oyalty of earth	cu.m each	28 20			28 20	12.96	-10.71% -35.20%	
	mpty gunny bag eo Textile (grade-1)		65			56.16	12.90	-33.20%	
23 B	arak bamboo /5mm-100mm)	sq.m m	30			15.84			
	ement	bag	480			480	480	0%	
	iesel	liter	61			61	61.50	0.82%	
	ubricant	liter	195			195	255	30.77%	
	IS Rod(plain,40 grade)	kg	60			60	50	-16.67%	
28 M	IS Deformed rod (40 rade)	kg	60	65	8.33%	60	62.63	4.38%	
29 M	IS Rod (plain,60 grade, illet)	kg	70			56			
	IS angle, flat bar	kg	65			65	62.53	-3.83%	
31 M	IS plate (8mm thick)	kg	90			90	90	0.00%	
	I wire (10BWG)	kg					90		
Labor									
	ead mason	day	450	500	11.11%	450	350	-22.22%	
	lason	day	400	400	0 %	400	275	-31.25%	
	killed labor	day	300	350	16.67%	300	250	-16.67%	
	rdinary labor	day	250	300	20 %	250	200	-20.00%	
	arder	day	400			400	250	-37.50%	
	od mistry GED Schedule of Rates I	day	400			400	300	-25.00%	

Table A3-2 Rate comparison for major construction items of Dinajpur and Rangpur regions

Source: LGED Schedule of Rates July 2012, and Basic Item's Market Rate March/April 2012 of Rangpur and Dinajpur regions

2 Unit cost analysis

2.1 Comparison of the standard rates and market prices

12 major construction items from raw materials (stone, sand, etc.), processed materials (cement, bitumen, steel rod, etc.), fuel, and labor have been sampled from the Schedule of Rates for four regions published by LGED in 2012 and the actual market prices in each region in March 2012. The prices,

comparison results and the average increment rate are shown in Table A3-3.

Sl. No	Item	Unit	Rate as per LGED Schedule of Rates of July 2011 (average of 3 or 4 Regions) (BDT)	Rate as per LGED Schedule of Rates of July 2012 (average of 3 or 4 Regions) (BDT)	% increase or decrease from 2011 LGED Schedule of Rates.	Market Price as in March 2012 (average of 3 or 4 Regions) (BDT)	The gap between LGED Schedule of Rates 2012 and market price
1	1st class bricks	each	5.66	6.50	14.84 %	6.69	2.92%
2	Stone chips (20 mm downgraded)	cu.m	2,866.67	3,733.33	30.23 %	4,141.67	10.74%
3	Stone shingles (20mm downgraded)	cu.m	1,767.50	2,300	30.13 %	2,582.16	12.27%
4	Sand (FM-0.8)	cu.m	275	325	18.18 %	384.50	18.31%
5	Cement	bag	380	480	26.31 %	486.67	1.39%
6	Bitumen	kg	50	71.50	43 %	69.16	3.61%
7	Fuel (Diesel)	liter	47.52	61	28.37 %	63.83	4.64%
8	MS Rod (deformed, 40 grade)	kg	50	60	20 %	66.91	11.52%
9	Head Mason	day	330	450	36.36 %	412.50	-8.33%
10	Mason	day	240	400	66.67%	343.75	-14.06%
11	Skilled Labor	day	207.50	300	44.58 %	295.00	-1.67%
12	Ordinary Labor	day	190	250	31.58 %	250.00	0%
	Total Average		6,409.85	8,437.58	31.63 %	9,102.84	7.88%

Table A3-3 Comparison of the standard rates in 2011, 2012 and market prices in 2012

Source: LGED Schedule of Rates July 2012, and Basic Item's Market Rate March/April 2012 of Mymensingh, Tangail, Rangpur and Dinajpur regions

2.2 Comparison of Work Items with the Standard Rates and Market Prices

The actual market prices for Tangail region in March 2012 have been applied in the bill of quantities for three selected items of work to compare with the total amount applied with the LGED Schedule of Rates for Tangail region published in 2012. The results for pavement foundation work, bituminous paving work and reinforced concrete work are shown in Table A3-4, Table A3-5 and Table A3-6, respectively.

Table A3-4 Unit cost analysis for Tangail region applied with market prices in 2012Pavement foundation work

Item	Drief Description of Itom	Unit		D	etailed Analysis	s (BDT)		
Code	Brief Description of Item	Unit	Sub-Item		Quantity	Unit	Rate	Amount
	Providing, laying, spreading and compacting 50-mm downgraded crusher run 1st class and		1st Class/ Picked chips (50-mm down		1.197	m ³	2,250.00	2,693.25
	Picked brick chips of LAA value not exceeding 40% including supplying of		1st Class Brick Chip downgraded		0.133	m ³	2,450.00	325.85
	required amount of 12-mm downgraded chips		Skilled Labo	or	0.326	day	250.00	81.50
	made of same quality bricks including		Ordinary Lab	oor	0.599	day	250.00	149.75
	supplying and spreading uniformly in layers of		Sandy Soil		0.12	m ³	190.00	22.80
	specified loose thickness on road surface		Head Masor	n	0.005	day	400.00	2.00
	maintaining grade, camber and super elevation including local handling, hand packing,		H.C. of Vibratory Roller (8-10 to		0.03	day	3,000.00	90.00
	booming, watering, dry rolling followed by wet rolling in layers with 8–10 tone road roller		H.C. of Water Tanko Mounted)	er (Truck	0.008	day	2,500.00	20.00
3.2.03.04	to achieve soaked CBR not less than 80% at a	cu.m	Diesel		0.17	liter	60.00	10.20
	degree of compaction to minimum 98%		Lubricant		0.014	liter	200.00	2.80
	(Modified Proctor) blinding with local sand as filter material @0.012 m ³ /m ² including cost of			Subtotal	-A:			3,398.15
	materials, labor, etc. all complete as per direction of the Engineering-in-charge. After adequate dry rolling sprinkling of water and		Subtotal-B:		ees, Incidental o (Add 2% on Su A1):		2%	3466.11
	rolling is to be continued until all the voids are filled, wave of grout/slurry flushes ahead of		Subtotal-C:	10%	Profit (Add 109 Subtotal-B):	% on	10%	3812.72
	the roller. Thickness of each layer should not		VAT		5.5% of Total		5.50%	231.71
	be more than 125-mm loose and measurement		IT		4% of Total		4.00%	168.52
	for Payment will be made on compacted thickness.				Total:			4,212.95
					2	Schedule of	Rate 2012	4,006.62
								5.15%
								higher

Source: LGED Schedule of Rates July 2012 of Tangail region, and Basic Item's Market Rate March/April 2012 of Tangail region

Table A3-5 Unit cost analysis for Tangail region applied with market prices in 2012Bituminous paving work

Item	Brief Description of Item	Unit			Detailed Anal	ysis		
Code	Biler Description of Rem	Unit	Sub	-Item	Quantity	Unit	Rate	Amount
3.2.30.2	40mm thick compacted pre-mixed bituminous dense carpeting with 25-mm downgraded crushed			ps (20-mm graded)	0.018	m ³	4590.00	80.33
	stone chips (LAA value <= 35%) complying with		Bitu	imen	4.500	Kg	65.00	292.50
	the specified grading requirement of the relevant		Fire	wood	4.500	Kg	7.56	34.02
	item of Road Design standards - 2005, of LAA		Ma	ison	0.009	Day	300.00	2.70
	value not exceeding 40, water absorption not $>2\%$,		Skilled	l Labor	0.080	Day	250.00	20.00
	flakiness index not $>35\%$ mixed with 60/70 or 80/100 penetration grade heated straight run		Ordinar	ry Labor	0.090	Day	250.00	22.50
	tumen satisfying the requirements of STM/AASHTO. The bitumen and stone-chips all be separately heated to a temperature 1400C –		(Ride On) 2	ratory Roller 2 Steel Drum r (1-3 tons)	0.002	Day	2,000.00	3.00
	1550 and 1500 – 1700 respectively before		Die	esel	0.010	Liter	60.00	0.60
	mixing. The mixing shall be done at temperature between $1400C - 1600C$ at separate place away from the fire. The bitumen and stone-chips mixture		Lubi	ricant	0.001	Liter	200.00	0.20
		sq.m	Stone Chips (12-mm downgraded)		0.020	m ³	4,150.00	83.00
	so prepared shall be laid uniformly on the road		Crushe	d Stone	0.013	m ³	2,200.00	27.50
	surface in single appropriate layer to give specified compacted thickness in proper camber, grade and super-elevation. The mixture should be rolled at a		Tired Roller	matic Multiple (7 tires, 8-10 ns)	0.002	Day	3,000.00	4.50
	temperature not below 90oC with appropriate Steel Drum Roller (1-3 tons) & pneumatic multiple tire			Subto	otal-A:			570.85
	roller (8-10 tons) to full compaction, including supplying of all materials, their carriage, laborers		Subtotal-B:		Fees, Incidental ch Add 2% on Subtota		2%	582.26
	tools and equipment etc. all complete as per the		Subtotal-C:	10% Profit	(Add 10% on Su	btotal-B) :	10%	640.49
	direction of the E-I-C. The bitumen in the mix shall		VAT		5.5% of Total		5.50%	38.92
	be minimum 4.9% by weight of total mix or as		IT		4% of Total		4.00%	28.31
	determined by job mix design.				Total :			707.72
						Schedule o	f Rate 2012	704.10
								0.51% higher

Source: LGED Schedule of Rates July 2012 of Tangail region, and Basic Item's Market Rate March/April 2012 of Tangail region

Table A3-6 Unit cost analysis for Tangail region applied with market prices in 2012 Reinforced concrete work

Item Code	Brief Description of Item	Unit		Detailed Ar	alysis		
	Ĩ	Uliit	Sub-Item	Quantity	Unit	Rate	Amount
4.2.03.01	Reinforced Cement Concrete work in bottom and top slab of box culvert of any height with		Stone Chips (20-mm downgraded)	0.860	m3	4,590.00	3,947.40
	stone chips (Preferably stone chips from		Sand (FM - 1.8)	0.450	m3	700.00	315.00
	Madhyapara, Dinajpur), sand (minimum FM 1.80) and cement having minimum 28 days		Cement	6.360	bag	480.00	3,052.80
	ultimate cylinder crushing strength of 210		Head Mason	0.060	day	400.00	24.00
	kg/cm2 (suggested mix proportion 1:2:4)		Mason	0.350	day	300.00	105.00
	excluding cost of reinforcement and its fabrication but including cost of all other		Skilled Labor	1.000	day	250.00	250.00
	materials, shuttering, casting, curing for 28		Ordinary Labor	1.250	day	250.00	312.50
	days and all incidental charges, etc. complete in all respect as per direction of the E-I-C.		H.C. of Concrete Mixture Machine (10 cft)	0.060	day	500.00	30.00
4.2.03.01.1	Bottom slab and approach slab	cu.m	H.C. of Concrete Vibrator	0.060	day	400.00	24.00
				Subtota	al-A:		8,060.70
				Form Work on Subto	·	3.00%	241.82
				Subtota	l-A1:		8,302.52
			Subtotal-B:	Lab Test Incidental c Overhead (A Subtotal-4	harges & .dd 2% on	2.00%	8,468.57
			Subtotal-C:	10% Profit (on Subtot		10.00%	9,315.43
			VAT	5.5% of	Total	5.50%	566.13
			IT	4% of [Fotal	4.00%	411.73
					Total:		10,293.29
				:	Schedule of	Rates 2012	9,797.00
							5.06% higher

Source: LGED Schedule of Rates July 2012 of Tangail region, and Basic Item's Market Rate March/April 2012 of Tangail region

2.3 Assessment of cost implications of different pavement standards

The different standard designs of Upazila road and Union road pavements have been estimated applying the LGED 2012 Schedule of Rates to compare the cost variations both by type of pavement and by region. The summary is tabulated in Table A3-7 and the details for each pavement type are shown in Table A3-8 to Table A3-14.

					Schedule of Ra	te 2012 (BDT)	
Ro	oad Type		Brief Description of Specifications	Mymensingh Region	Tangail Region	Rangpur Region	Dinajpur Region
	Type-4	А	Double lane carriageway for 301-600 CVD. 5.50-m pavement width, 2.15m earthen shoulder each side (P.I. is 8 to 20, mini. Comp. 95% STD), Brick on end edging (125 mm).	14,761,415.25	14,634,023.25	14,113,055.50	13,750,056.75
	Type T	в	In A WBM is 200 mm but in B it is 150 mm thick. In Aggrsand sub-base is 200 mm thick but it is 150-mm thick. All other same as Type-A.	12,864,028.00	12,776,049.00	12,336,863.50	12,026,582.25
Upazila Road (UZR)	Type-5	А	Double lane carriageway for 201-300 CVD. 3.70-m pavement width, 0.90-m hard shoulder, 0.90-m earthen shoulder each side (P.I. is 8 to 20, mini. Comp. 95% STD) and 40-mm BC with 7-mm SC. Total crest width is 7.30 m. Brick on end edging (125 mm).	11,234,508.00	11,135,676.00	10,741,290.50	10,445,202.25
		В	Same as Type-A except .90m HBB hard shoulder both side & 25mm BC with 7 mm SC.	9,609,435.95	9,481,722.35	9,103,997.40	8,826,749.40
	Туре-6	А	3.70-m carriageway, 7.30-m crest width, 250-mm compacted Improved sub grade, 150-mm AS sub-base, 150-mm WBM with 25-mm BC with 7-mm Seal coat (SC).	7,576,394.20	7,503,674.60	7,246,472.90	7,046,097.15
Union	Туре-	-7	250-mm improved subgrade, 150-mm aggregate-sand sub base (AS), 150-mm WBM carriage way 3.70 m, crest width is 5.50 m with earthen shoulder for 51 to 100 CVD.	7,547,880.05	7,474,302.97	7,212,908.38	7,006,559.13
Road (UNR)	Туре		3.00-m carriage way with 5.50 m crests width for CVD up to 50. Compacted subgrade, 250-mm improved subgrade (ISD), 150-mm AS sub-base, 150-mm WBM. With 25-mm carpeting with 7-mm seal coat.	6,700,968.67	6,644,179.19	6,420,249.30	6,246,504.30

Table A3-7 Cost comparison of pavement standards by type and region

Source: Survey team

								Schedule of Rat	e 2012 (BDT))		
SI. No.	Item Code	Description	Unit	Quantity	Mymen	singh Region	Tang	gail Region	Rangp	our Region	Dinaj	pur Region
					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	3.1.04	Earth work in box cutting on road crest up to 450-mm deep	sq.m	5500	52.54	288,970.00	52.54	288,970.00	52.54	288,970.00	52.54	288,970.00
2	3.2.15.02	Brick on end edging (125-mm across)	m	2000	142.28	284,560.00	137.94	275,880.00	129.11	258,220.00	124.47	248,940.00
3	3.1.06.01	Sand (F.M. 0.80) filling on the road bed in the improved sub-grade with sand free from dust	cu.m	1375	594.63	817,616.25	594.63	817,616.25	558.98	768,597.50	487.69	670,573.75
4	3.2.02.02	Providing compacted aggregate sand sub-base course with 38-mm downgraded 1 st class bricks/picked chips	cu.m	1100	2,573.00	2,830,300.00	2,507.04	2,757,744.00	2,362.75	2,599,036.00	2,259.71	2,485,681.00
5	3.2.03.06	Providing, laying, spreading and compacted 38-mm downgraded aggregate as specified in the relevant item of LGED road design standard or wet. mix macadam	cu.m	1100	4,326.59	4,759,249.00	4,249.23	4,674,153.00	4,096.12	4,505,732.00	4,007.47	4,408,217.0
6	3.2.24.01	Providing tack coat with 60/70 or 80/100 penetration grade	sq.m	5500	100.60	553,300.00	100.60	553,300.00	101.21	556,655.00	101.21	556,655.00
7	3.2.25.01	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	sq.m	5500	111.56	613,580.00	111.56	613,580.00	112.04	616,220.00	112.04	616,220.00
8	3.2.30.1	45-mm thick (compacted) pre-mixed bituminous carpeting to be prepared using 20-mm down stone chips	sq.m	5500	611.93	3,365,615.00	617.64	3,397,020.00	595.06	3,272,830.00	588.84	3,238,620.0
9	3.2.39	12-mm thick (compacted)pre-mixed bituminous seal coat	sq.m	5500	226.95	1,248,225.00	228.32	1,255,760.00	226.69	1,246,795.00	224.76	1,236,180.0
					Total	14,761,415.25	Total	14,634,023.25	Total	14,113,055.50	Total	13,750,056.7

Table A3-8 Unit costs of Upazila road standard type-4 (A) by region per km

SI. No.	Item Code	Description	Unit	Quantity				Schedule of l	Rate 2012 (B	DT)		
110	cour				Mymen	singh Region	Tang	ail Region	Rang	pur Region	Dina	jpur Region
					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	3.1.04	Earth work in box cutting on road crest up to 450-mm deep	sq.m	5,500	52.54	288,970.00	52.54	288,970.00	52.54	288,970.00	52.54	288,970.00
2	3.2.15.02	Brick on end edging (125 mm across)	m	2,000	142.28	284,560.00	137.94	275,880.00	129.11	258,220.00	124.47	248,940.00
3	3.1.06.01	Sand (F.M. 0.80) filling on the road bed in the improved sub-grade with sand free from dust	cu.m	1,375	594.63	817,616.25	594.63	817,616.25	558.98	768,597.50	487.69	670,573.75
4	3.2.02.02	Providing compacted aggregate sand sub-base course with 38-mm downgraded 1 st class bricks /picked chips	cu.m	825	2,573.00	2,122,725.00	2,507.04	2,068,308.00	2,362.76	1,949,277.00	2,259.71	1,864,260.00
5	3.2.03.06	Providing, laying, spreading and compacted 38-mm downgraded aggregate as specified in the relevant item of LGED road design standard or wet. mix macadam	cu.m	825	4,326.59	3,569,436.75	4,249.23	3,505,614.75	4,096.12	3,379,299.00	4,007.47	3,306,162.75
6	3.2.24.01	Providing tack coat with 60/70 or 80/100 penetration grade	sq.m	5,500	100.60	553,300.00	100.60	553,300.00	101.21	556,655.00	101.21	556,655.00
7	3.2.25.01	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	sq.m	5,500	111.56	613,580.00	111.56	613,580.00	112.04	616,220.00	112.04	616,220.00
8	3.2.30.1	40 mm thick (compacted) pre-mixed bituminous carpeting to be prepared using 25-mm down stone chips	sq.m	5500	611.93	3,365,615.00	617.64	3,397,020.00	595.06	3,272,830.00	588.84	3,238,620.00
9	3.2.39	12-mm thick (compacted) pre-mixed bituminous seal coat	sq.m	5500	226.95	1,248,225.00	228.32	1,255,760.00	226.69	1,246,795.00	224.76	1,236,180.00
					Total	12,864,028.00	Total	12,776,049.00	Total	12,336,863.50	Total	12,026,582.25

Table A3-9 Unit costs of Upazila road standard type-4 (B) by region per km

								Schedule of Rate	e 2012 (BDT)		
SI. No.	Item Code	Description	Unit	Quantity	Mymens	ingh Region	Tang	ail Region	Rang	pur Region	Dinaj	pur Region
					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	3.1.04	Earth work in box cutting on road crest up to 450-mm deep	sq.m	5,500	52.54	288,970.00	52.54	288,970.00	52.54	288,970.00	52.54	288,970.00
2	3.2.15.02	Brick on end edging (125 mm across)	m	2,000	142.28	284,560.00	137.94	275,880.00	129.11	258,220.00	124.47	248,940.00
3	3.1.06.01	Sand (F.M. 0.80) filling on the road bed in the improved sub-grade with sand free from dust	cu.m	1,375	594.63	817,616.25	594.63	817,616.25	558.98	768,597.50	487.69	670,573.75
4	3.2.02.02	Providing compacted aggregate sand sub-base course with 38-mm downgraded 1 st class bricks/picked chips	cu.m	825	2,573.00	2,122,725.00	2,507.04	2,068,308.00	2,362.76	1,949,277.00	2,259.71	1,864,260.75
5	3.2.03.06	Providing, laying, spreading and compacted 38-mm downgraded aggregate as specified in the relevant item of LGED road design standard or wet. mix macadam	cu.m	825	4,326.59	3,569,436.75	4,249.23	3,505,614.75	4,096.12	3,379,299.00	4,007.47	3,306,162.75
6	3.2.24.01	Providing tack coat with 60/70 or 80/100 penetration grade	sq.m	3,700	100.60	372,220.00	100.60	372,220.00	101.21	374,477.00	101.21	374,477.00
7	3.2.25.01	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	sq.m	5,500	111.16	611,380.00	111.56	613,580.00	112.04	616,220.00	112.04	616,220.00
8	3.2.30.1	40-mm thick (compacted) pre-mixed bituminous carpeting to be prepared using 20 mm down stone chips	sq.m	3,700	611.93	2,264,141.00	617.64	2,285,268.00	595.06	2,201,722.00	588.84	2,178,708.00
9	3.2.39	12-mm thick (compacted) pre-mixed bituminous seal coat	sq.m	1,800	226.95	408,510.00	228.32	410,976.00	226.69	408,042.00	224.76	404,568.00
10	3.2.34	7-mm thick (compacted) pre-mixed bituminous seal coat	sq.m	3,700	133.77	494,949.00	134.39	497,243.00	134.18	496,466.00	133.06	492,322.00
					Total	11,234,508.00	Total	11,135,676.00	Total	10,741,290.50	Total	10,445,202.25

Table A3-10 Unit costs of Upazila road standard type-5 (A) by region per km

								Schedule of Rat	te 2012 (BDT)		
SI. No.	Item Code	Description	Unit	Quantity	Mymens	singh Region	Tang	gail Region	Rang	our Region	Dinajı	our Region
					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	3.1.02	Earth work in box cutting on road crest up to 300-mm depth	sq.m	1,800	38.87	69,966.00	38.77	69,966.00	38.87	69,966.00	38.44	69,192.00
2	3.1.04	Earth work in box cutting on road crest up to 450-mm depth	sq.m	3,700	52.54	194,398.00	52.54	194,398.00	52.54	194,398.00	52.54	194,398.00
3	3.2.15.02	Brick on end edging (125 mm across)	m	4,000	142.28	569,120.00	137.94	551,160.00	129.11	516,440.00	124.47	497,880.00
4	3.1.06.01	Sand (F.M. 0.80) filling on the road bed in the improved sub-grade with sand free from dust	cu.m	1,150	594.63	683,824.50	594.63	683,824.50	558.98	642,827.00	487.69	560,843.50
5	3.2.02.02	Providing compacted aggregate sand sub-base course with 38-mm downgraded 1 st class bricks /picked chips	cu.m	555	2,573.00	1,428,015.00	2,507.04	1,391,407.20	2,362.76	1,311,331.80	2,259.71	1,254,139.05
6	3.2.03.06	Providing, laying, spreading and compacted 38-mm downgraded aggregate as specified in the relevant item of LGED road design standard or wet. mix macadam	cu.m	555	4,326.59	2,401,257.45	4,249.23	2,358,322.65	4,096.12	2,273,346.60	4,007.47	2,224,145.85
7	3.2.24.01	Providing tack coat with 60/70 or 80/100 penetration grade	sq.m	3,700	100.60	372,220.00	100.60	372,220.00	101.21	374,477.00	101.21	374,477.00
8	3.2.25.01	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	sq.m	3,700	111.56	412,772.00	111.56	412,772.00	112.04	414,548.00	112.04	414,548.00
9	3.2.29.1	25 mm thick (compacted) pre-mixed bituminous carpeting to be prepared using 20-mm down stone chips	sq.m	3700	388.70	1,438,190.00	392.27	1,451,399.00	380.17	1,406,629.00	376.22	1,392,014.00
10	3.2.34	7 mm thick (compacted) pre-mixed bituminous seal coat	sq.m	3700	133.77	494,949.00	134.39	497,243.00	134.18	496,466.00	133.06	492,322.00
11	3.2.11.04	Single layer brick flat soling with 1st class or picked jhama bricks	sq.m	1800	317.26	571,068.00	307.65	553,770.00	288.06	518,508.00	277.71	499,878.00
12	3.2.13.01	Brick on edge pavement in single layer of Herring Bone Bond	sq.m	1800	540.92	973,656.00	524.28	944,640.00	491.17	885,060.00	473.84	852,912.00
					Total	9,609,435.00	Total	9,481,722.35	Total	9,103,997.40	Total	8,826,749.40

Table A3-11 Unit costs of Upazila road standard type-5 (B) by region per km

								Schedule of Ra	te 2012 (BDT	`)		
Sl. No.	Item Code	Description	Unit	Quantity	Mymens	singh Region	Tang	gail Region	Rang	our Region	Dinaj	our Region
					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	3.1.04	Earth work in box cutting on road crest up to 450-mm depth	sq.m	3,700	52.54	194,398.00	52.54	194,398.00	52.54	194,398.00	52.54	194,398.00
2	3.2.15.02	Brick on end edging (125 mm across)	m	2,000	142.28	284,560.00	137.94	275,880.00	129.11	258,220.00	124.47	248,940.00
3	3.1.06.01	Sand (F.M. 0.80) filling on the road bed in the improved sub-grade with sand free from dust	cu.m	925	594.63	550,032.75	594.63	550,032.75	558.98	517,065.50	487.69	451,113.25
4	3.2.02.02	Providing compacted aggregate sand sub-base course with 38 mm downgraded 1 st class bricks/picked chips	cu.m	555	2,573.00	1,428,015.00	2,507.04	1,391,407.20	2,362.76	1,311,331.80	2,259.71	1,254,139.05
5	3.2.03.06	Providing, laying, spreading and compacted 38-mm downgraded aggregate as specified in the relevant item of LGED road design standard or wet. mix macadam	cu.m	555	4,326.59	2,401,257.45	4,249.23	2,358,322.65	4,096.12	2,273,346.60	4,007.47	2,224,145.8
6	3.2.24.01	Providing tack coat with 60/70 or 80/100 penetration grade	sq.m	3,700	100.60	372,220.00	100.60	372,220.00	101.21	374,477.00	101.21	374,477.00
7	3.2.25.01	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	sq.m	3,700	111.56	412,772.00	111.56	412,772.00	112.04	414,548.00	112.04	414,548.00
8	3.2.29.1	25-mm thick (compacted) pre-mixed bituminous carpeting to be prepared using 20 mm down stone chips	sq.m	3,700	388.70	1,438,190.00	392.27	1,451,399.00	380.17	1,406,629.00	376.22	1,392,014.0
10	3.2.34	7-mm thick (compacted) pre-mixed bituminous seal coat	sq.m	3,700	133.77	494,949.00	134.39	497,243.00	134.18	496,466.00	133.06	492,322.00
					Total	7,576,394.20	Total	7,503,674.60	Total	7,246,472.90	Total	7,046,097.1

Table A3-12 Unit costs of Upazila road standard type-6 (A) by region per km

								Schedule of Ra	te 2012 (BDT)		
SI. No.	Item Code	Description	Unit	Quantity	Mymen	singh Region	Tan	gail Region	Rang	our Region	Dinajj	pur Region
					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	3.1.04	Earth work in box cutting on road crest up to 450-mm deep	sq.m	1,785	52.54	93,783.90	52.54	93,783.90	52.54	93,783.90	52.54	93,783.90
2	3.2.15.02	Brick on end edging (125 mm across)	m	2,000	142.28	284,560.00	137.94	275,880.00	129.11	258,220.00	124.47	248,940.00
3	3.1.06.01	Sand (F.M. 0.80) filling on the road bed in the improved sub-grade with sand free from dust	cu.m	990	594.63	588,683.70	594.63	588,683.70	558.98	553,390.20	487.69	482,813.10
4	3.2.02.02	Providing compacted aggregate sand sub-base course with 38 mm downgraded 1 st class bricks /picked chips	cu.m	568	2,573.00	1,461,464.00	2,507.04	1,423,998.72	2,362.76	1,342,047.68	2,259.71	1,283,515.28
5	3.2.02.06	Providing, laying, spreading and compacted 38 mm downgraded aggregate as specified in the relevant item of LGED road design standard or wet. mix macadam	cu.m	555	4,326.59	2,401,257.45	4,249.23	2,358,322.65	4,096.12	2,273,346.60	4,007.47	2,224,145.85
5	3.2.24.01	Providing tack coat with 60/70 or 80/100 penetration grade	sq.m	3,700	100.60	372,220.00	100.60	372,220.00	101.21	374,477.00	101.21	374,477.00
6	3.2.25.01	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	sq.m	3,700	111.56	412,772.00	111.56	412,772.00	112.04	414,548.00	112.04	414,548.00
7	3.2.29.1	25-mm thick (compacted) pre-mixed bituminous carpeting to be prepared using 20 mm down stone chips	sq.m	3,700	388.70	1,438,190.00	392.27	1,451,339.00	380.17	1,406,629.00	376.22	1,392,014.00
8	3.2.34	7-mm thick (compacted) pre-mixed bituminous seal coat	sq.m	3,700	133.77	494,949.00	134.39	497,243.00	134.18	496,466.00	133.06	492,322.00
					Total	7,547,880.05	Total	7,474,302.97	Total	7,212,908.38	Total	7,006,559.13

Table A3-13 Unit costs of Union road standard type-7 by region per km

								Schedule of Rat	te 2012 (BDT	[]		
SI. No.	Item Code	Description	Unit	Quantity	Mymens	singh Region	Tang	gail Region	Rang	our Region	Dinajp	ur Region
					Rate	Amount	Rate	Amount	Rate	Amount	Rate	Amount
1	3.1.04	Earth work in box cutting on road crest up to 450-mm deep	sq.m	1,468	52.54	77,128.72	52.54	77,128.72	52.54	77,128.72	52.54	77,128.72
2	3.2.15.02	Brick on end edging (125 mm across)	m	2,000	142.28	284,560.00	137.94	275,880.00	129.11	258,220.00	124.47	248,940.00
3	3.1.06.01	Sand (F.M. 0.80) filling on the road bed in the improved sub-grade with sand free from dust	cu.m	815	594.63	484,623.45	594.63	484,623.45	558.98	455,568.70	487.69	397,467.35
4	3.2.02.02	Providing compacted aggregate sand sub-base course with 38-mm downgraded 1 st class bricks/picked chips	cu.m	463	2,573.00	1,191,299.00	2,507.04	1,160,759.52	2,362.76	1,093,957.88	2,259.71	1,046,245.73
5	3.2.03.06	Providing, laying, spreading and compacted 38-mm downgraded aggregate as specified in the relevant item of LGED road design standard or wet. mix macadam	cu.m	450	4,326.59	1,946,965.50	4,249.23	1,1912,153.50	4,096.12	1,843,254.00	4,007.47	1,803,361.50
5	3.2.24.01	Providing tack coat with 60/70 or 80/100 penetration grade	sq.m	3,700	100.60	372,220.00	100.60	372,220.00	101.21	374,477.00	101.21	374,477.00
6	3.2.25.01	Prime coat with cut back bitumen to be prepared by cutting back 60/70 or 80/100 penetration grade	sq.m	3,700	111.16	411,292.00	111.56	412,772.00	112.04	414,548.00	112.04	414,548.00
7	3.2.29.1	25 mm thick (compacted) pre-mixed bituminous carpeting to be prepared using 20-mm down stone chips	sq.m	3,700	388.70	1,438,190.00	392.27	1,451,339.00	380.17	1,406,629.00	376.22	1,392,014.00
8	3.2.34	7-mm thick (compacted) pre-mixed bituminous seal coat	sq.m	3,700	133.70	494,690.00	134.39	497,243.00	134.18	496,466.00	133.06	492,322.00
					Total	6,700,968.67	Total	6,644,179.19	Total	6,420,249.30	Total	6,246,504.3

Table A3-14 Unit costs of Union road standard type-8 by region per km

2.4 Indicative unit costs for Pourashava sub-projects

Infrastructure sub-projects for several sectors, e.g., transport, sanitation, solid waste management, and water sectors, for Pourashava development were estimated applying the LGED Schedule of Rate 2012 for four regions. The Union Road Type-7 and 8 above mentioned will be applied for Pourashava road construction. The indicative estimate costs of sub-projects are tabulated in Table A3-15 and details are shown in Table A3-16 to Table A3-30.

		Construction	cost applying S	chedule of Rate	2012 (BDT)
Sub-project	Description of the facility	Mymensingh Region	Tangail Region	Rangpur Region	Dinajpur Region
Bus terminal	Site area 50 m x 60 m with a terminal building and parking area	11,491,255	11,421,614	10,980,940	10,321,922
Truck terminal	Site area 40 m x 50 m with a terminal building and parking area	3,539,836	3,486,745	3,355,093	3,332,337
Street lighting	Per 1,000 m at a pitch of 40 m, total 26 RCC poles	778,918	779,066	778,332	648,510
Masonry drain	0.300 m x 0.525 m (Type B), 100-m long	425,290	417,767	402,332	394,557
RCC primary drain	0.750 m x 1.125 m x 0.15 m (type G), 100-m long	859,265	858,630	851,124	850,032
Single pit latrine	1.2 m x 1.2 m x 2.5 m, GI corrugated roofing with masonry wall	26,457	26,260	25,474	25,190
Twin pit latrine	1.2 m x 1.2 m x 2.5 m, masonry wall with RCC roofing	38,330	37,805	37,208	36,907
Public toilet	7.5 m x 4.0 m x 3.0 m, masonry wall with RCC roofing	915,110	911,087	892,886	887,005
Solid waste collection station	1.25 m x 1.25 m x 1 m, RCC wall	12,568	12,562	12,490	12,486
Solid waste transfer station	7.5 m x 7.0 m, masonry wall with RCC roofing	715,074	712,400	703,621	700,126
Solid waste disposal ground	70 m x 60 m	417,548	417,548	417,548	417,548
Composting plant	31.6 m x 10.5 m, masonry wall with RCC roofing	1,634,552	1,622,744	1,595,354	1,581,646
Installation of a tube well	With PVC pipe 38 mm x 200-m deep	71,266	71,266	71,266	71,266
Water pipeline laying and rehabilitation	PVC pipe 200 mm x 100-m length with accessories	282,717	282,556	281,231	279,181
Slaughter house	9.6 m x 5.4 m x 3.6 m, masonry wall with RCC roofing	1,079,756	1,075,276	1,055,527	1,048,501

Table A3-15 Indicative unit costs for Pourashava sub-projects

											Rate and am	ount in BDT
S1.	Item				Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No	Code	Item of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	2.1.07.01	Earth filling	4,560	cu. m	310.69	1,416,746	310.69	1,416,746	310.69	1,416,746	310.69	1,416,746
2	2.1.08.02	Mechanical compaction	4,560	cu. m	36.66	167,170	36.66	167,170	36.66	167,170	36.66	167,170
3	3.1.06.01	Sand fill FM=0.80	7,290	cu. m	594.63	4,334,853	594.63	4,334,853	558.98	4,074,964	487.69	3,555,260
1	3.2.11.04	Brick flat soling	331	sq. m	317.26	105,077	307.65	101,894	288.04	95,399	277.71	91,978
5	3.2.13.01	Brick on edge HBB	2,950	sq. m	540.92	1,595,714	524.80	1,548,160	491.70	1,450,515	473.84	1,397,828
6	5.02.01	Earthwork	192	cu. m	105.38	20,233	105.38	20,233	105.38	20,233	105.38	20,233
7	5.03.04.01	Mass concrete	17	cu. m	6,612.97	111,759	6,523.25	110,243	6,327.01	106,926	6,256.93	105,742
8	5.03.06	75-mm plain concrete	159	sq. m	486.68	77,187	486.68	77,187	484.82	76,892	485.75	77,040
9	5.03.07	Damp proof course	6	sq. m	279.70	1,566	277.39	1,553	272.32	1,525	270.91	1,517
10	5.03.10	Polythene	237	sq. m	18.36	4,351	18.36	4,351	18.36	4,351	18.36	4,351
11	5.04.01	250-mm brickwork	67	cu. m	5,541.81	371,855	5,415.97	363,412	5,154.98	345,899	5,027.30	337,332
12	5.04.09.01	125-mm brickwork	554	sq. m	805.40	446,192	788.48	436,818	750.73	415,904	735.76	407,611
13	5.05.01.01	RCC in footing	29	cu. m	8,649.89	254,307	8,665.29	254,760	8,588.97	252,516	8,611.73	253,185
14	5.05.02.01	RCC in column and wall	7	cu. m	12,334.10	81,405	12,356.06	81,550	12,247.23	80,832	12,279.69	81,046
15	5.05.03.01	RCC in Tie beam & lintel	8	cu. m	10,732.27	82,638	10,751.38	82,786	10,656.68	82,056	10,684.93	82,274
16	5.05.04.01	RCC in beam	7	cu. m	11,373.00	84,160	11,393.25	84,310	11,292.90	83,567	11,322.83	83,789
17	5.05.05.01	RCC in slab	17	cu.	11,212.82	190,618	11,232.13	190,946	11,133.85	189,275	11,163.35	189,777
18	5.06.01.01	M S rod	5,720	m kg	81.86	468,239	81.86	468,239	81.86	468,239	81.86	468,239

Table A3-16 Unit costs of a bus terminal, size: 50 m x 60 m

												ount in BDT
51.	Item			··· ·	Mymensing	h Region	Tangail 1	Region	Rangpur	Region	Dinajpur	Region
No	Code	Item of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
19	5.06.04	M S clamp	96	each	80.09	7,689	80.09	7,689	80.09	7,689	80.09	7,689
20	5.12.01	12-mm plaster	399	sq. m	229.09	91,361	229.09	91,361	228.07	90,954	228.58	91,158
21	5.12.02.01	12-mm plaster	1,347	sq. m	184.02	247,875	184.02	247,875	182.75	246,164	183.38	247,013
22	5.12.03.01	6-mm plaster	167	sq. m	162.50	27,138	162.50	27,138	161.86	27,031	162.18	27,084
23	5.08.15.02	Steel windows	17	sq. m	2,865.94	48,148	2,865.94	48,148	2,865.94	48,148	2,865.94	48,148
24	5.08.15.03	3-mm glass	17	sq. m	671.49	11,415	671.49	11,415	671.49	11,415	671.49	11,415
24	5.08.21.01	uPVC door	5	each	2,893.35	14,467	2,893.35	14,467	2,893.35	14,467	2,893.35	14,467
25	5.08.21.04	uPVC door	4	each	3,337.34	13,349	3,337.34	13,349	3,337.34	13,349	3,337.34	13,349
26	5.14.05.01.01	Mosaic work	136	sq. m	970.62	132,004	970.62	132,004	970.62	132,004	970.62	132,004
27	5.15.02.01	Wall glazed tiles	109	sq. m	1,140.29	124,292	1,140.29	124,292	1,139.02	124,153	1,139.67	124,224
28	5.16.05.02	Plastic paint	256	sq. m	93.11	23,836	93.11	23,836	93.11	23,836	93.11	23,836
29	5.16.09.02	Weather coat paint	152	sq. m	110.38	16,778	110.38	16,778	110.38	16,778	110.38	16,778
30	5.18.01	Collapsible gate	8	sq. m	3,994.37	33,553	3,994.37	33,553	3,994.37	33,553	3,994.37	33,553
31	5.18.07	Rolling shutter	8	sq. m	5,509.09	45,175	5,509.09	45,175	5,509.09	45,175	5,509.09	45,175
32	5.16.10.02	Synthetic paint	17	sq. m	90.68	1,523	90.68	1,523	90.68	1,523	90.68	1,523
33	5.20.04	Barbed wire fence	205	m	536.97	110,079	536.97	110,079	536.75	110,034	536.75	110,034
34	5.22.01	Construction of drain	15	m	1,091.25	16,369	1,074.81	16,122	1,038.23	15,573	1,024.13	15,362
35	6.015.09	CC blocks	240	each	501.34	120,322	507.53	121,807	467.24	112,138	461.82	110,837
36	6.016	Labor for laying CC blocks	15	cu. m	1,114.56	16,718	1,114.56	16,718	1,114.56	16,718	1,114.56	16,718
37	7.01.01	Long pan	4	each	1,406.70	5,627	1,398.64	5,595	1,382.53	5,530	1,374.47	5,498
38	7.04.01.01	Hand wash basin	3	each	3,541.04	10,623	3,541.04	10,623	3,541.04	10,623	3,541.04	10,623
39	7.06.01.01	Bib cock	5	each	468.64	2,343	468.64	2,343	468.64	2,343	468.64	2,343
40	7.06.06.01	Pillar cock	3	each	1,069.93	3,210	1,069.93	3,210	1,069.93	3,210	1,069.93	3,210

S1.	Item				Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No	Code	Item of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
41	7.08.02.01	PVC pipe 12 mm	42	m	43.39	1,822	43.39	1,822	43.39	1,822	43.39	1,822
12	7.08.02.02	PVC pipe 19 mm	22	m	58.89	1,296	58.89	1,296	58.89	1,296	58.89	1,296
13	7.08.02.03	PVC pipe 25 mm	75	m	88.17	6,613	88.17	6,613	88.17	6,613	88.17	6,613
44	7.08.01.05	PVC pipe 150 mm	45	m	967.03	43,516	967.03	43,516	967.03	43,516	967.03	43,516
15	7.08.05.04	PVC rainwater pipe	12	m	375.91	4,511	375.91	4,511	375.91	4,511	375.91	4,511
46	7.08.14	PVC grating	12	each	33.47	402	33.47	402	33.47	402	33.47	402
17	7.09.01.21	25-mm GI pipe	5	m	386.14	1,931	386.14	1,931	386.14	1,931	386.14	1,931
18	7.05.03.01	Urinal	1	each	2,405.96	2,406	2,405.96	2,406	2,405.96	2,406	2,405.96	2,406
49	7.10.02.02	Plastic water tank 10001	1	each	11,840.73	11,841	11,840.73	11,841	11,840.73	11,841	11,840.73	11,841
50	7.11.04.02	Septic tank 100 user	1	each	108,013.32	108,013	106,299.66	106,300	102,281.61	102,282	100,692.89	100,693
51	7.11.04.04	Septic tank 30 user	1	each	48,792.52	48,793	47,980.76	47,981	46,125.75	46,126	45,376.47	45,376
52	7.11.05.02	Soak well 100 user	1	each	101,508.55	101,509	101,986.99	101,987	95,976.16	95,976	94,679.48	94,679
53	7.11.05.04	Soak well 30 user	1	each	73,406.15	73,406	73,573.61	73,574	69,924.71	69,925	6,911.52	6,912
54	7.11.01.01	Inspection pit	1	each	3,312.54	3,313	3,247.90	3,248	3,107.11	3,107	3,048.27	3,048
55	7.11.03.01	Pit cover	1	each	2,036.28	2,036	2,037.19	2,037	2,031.43	2,031	2,033.40	2,033
6	8.01.02.01	Main switch	1	each	1,677.42	1,677	1,677.42	1,677	1,677.42	1,677	1,677.42	1,677
57	8.01.02.03	Main switch	1	each	1,591.88	1,592	1,591.88	1,592	1,591.88	1,592	1,591.88	1,592
58	8.06.04.01	Concealed wiring light	38	each	1,405.04	53,392	1,405.04	53,392	1,405.04	53,392	1,405.04	53,392
59	8.06.04.02	DO for ceiling fan	6	each	1,476.73	8,860	1,476.73	8,860	1,476.73	8,860	1,476.73	8,860
60	8.46.02.01	Centrifugal pump	1	each	14,750.02	14,750	14,750.02	14,750	14,750.02	14,750	14,750.02	14,750
51	8.35.04	4-Gang switch	8	each	543.98	4,352	543.98	4,352	543.98	4,352	543.98	4,352
52	8.35.05	1- gang switch with socket	8	each	289.02	2,312	289.02	2,312	289.02	2,312	289.02	2,312
53	8.31	Fluorescent lamp	8	each	872.14	6,977	872.14	6,977	872.14	6,977	872.14	6,977
64	8.35.06	Fan regulator	6	each	382.31	2,294	382.31	2,294	382.31	2,294	382.31	2,294
55	8.41.03.03	Energy saving lamp 8 watt	7	each	282.80	1,980	282.80	1,980	282.80	1,980	282.80	1,980
66	8.47.02	Phase starter	1	each	1,546.44	1,546	1,546.44	1,546	1,546.44	1,546	1,546.44	1,546
57	10.02.01	Boring 0-50 m	50	m	123.98	6,199	123.98	6,199	123.98	6,199	123.98	6,199
68	10.02.02	Boring 50-100 m	50	m	136.18	6,809	136.18	6,809	136.18	6,809	136.18	6,809

											Rate and am	ount in BDT
Sl.	Item			_	Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No	Code	Item of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
69	10.03.01	Hand pump no.6	1	each	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502
70	10.03.02	GI pipe 38 mm	2	m	630.47	946	630.47	946	630.47	946	630.47	946
71	10.03.03	PVC pipe 38 mm	95	m	135.98	12,918	135.98	12,918	135.98	12,918	135.98	12,918
72	10.03.04	PVC strainer	4	m	209.53	733	209.53	733	209.53	733	209.53	733
73	10.03.05	Socket	16	each	16.50	264	16.50	264	16.50	264	16.50	264
74	10.03.06	PVC cap	1	each	60.01	60	60.01	60	60.01	60	60.01	60
75	10.08	Platform	1	each	2,721.89	2,722	2,677.85	2,678	2,572.99	2,573	2,521.84	2,522
76	10.01	Mobilization	1	LS	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000
77	10.06	Tests of water	1	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
78	10.07	Disinfection	1	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
79	10.05.01	Development	1	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
80	10.04	Filling	1	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
	Total					11,491,255		11,421,614		10,980,940		10,321,922

											Rate and amo	
SI.	Item		Quanti	Unit	Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No	Code	Item of works	ty	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	2.1.07.01	Earthwork in filling	3,000	cu.m	310.69	932,070	310.69	932,070	310.69	932,070	310.69	932,070
2	2.1.08.02	Mechanical compaction	3,000	cu.m	36.66	109,980	36.66	109,980	36.66	109,980	36.66	109,980
3	3.1.06.01	Sand filling FM=0.80	434	cu.m	594.63	258,069	594.63	258,069	558.98	242,597	487.69	211,657
4	3.2.11.04	Brick soling	2,010	sq.m	317.26	637,693	307.65	618,377	288.04	578,960	277.71	558,197
5	3.2.13.01	Brick in HBB	1,984	sq.m	540.92	1,073,185	524.80	1,041,203	491.70	975,533	473.84	940,099
6	5.02.01	Earthwork	6	cu.m	105.38	590	105.38	590	105.38	590	105.38	590
7	5.03.04.01	Mass concrete	1	cu.m	6,612.97	5,952	6,523.25	5,871	6,327.01	5,694	6,256.93	5,631
8	5.03.06	75-mm plain concrete	15	sq.m	486.68	7,106	486.68	7,106	484.82	7,078	485.75	7,092
9	5.03.07	25-mm DPC	2	sq.m	279.70	531	277.39	527	272.32	517	270.91	515
10	5.04.01	Brickwork	1	cu.m	5,541.81	7,204	5,415.97	7,041	5,154.98	6,701	5,027.30	6,535
11	5.04.09.01	125-mm brickwork	47	sq.m	805.40	37,773	788.48	36,980	750.73	35,209	735.76	34,507
12	5.03.10	Polythene	6	sq.m	18.36	116	18.36	116	18.36	116	18.36	116
13	5.05.01.01	RCC in footing	3	cu.m	8,649.89	22,490	8,665.29	22,530	8,588.97	22,331	8,611.73	22,390
14	5.05.02.01	RCC in column	1	cu.m	12,334.10	13,568	12,356.06	13,592	12,247.23	13,472	12,279.69	13,508
15	5.05.0301	RCC in tie beam and lintel	0.4	cu.m	10,732.27	4,293	10,751.38	4,301	10,656.68	4,263	10,684.93	4,274
16	5.05.04.01	RCC in beam	1	cu.m	11,373.00	14,785	11,393.25	14,811	11,292.90	14,681	11,322.83	14,720
17	5.05.05.01	RCC in slab	6	cu.m	11,212.82	65,034	11,232.13	65,146	11,133.85	64,576	11,163.35	64,747
18	5.06.01.01	MS rod	960	kg	81.86	78,586	81.86	78,586	81.86	78,586	81.86	78,586
19	5.06.04	MS clamp	18	each	80.09	1,442	80.09	1,442	80.09	1,442	80.09	1,442
20	5.08.21.01	uPVC door	2	each	2,893.35	5,787	2,893.35	5,787	2,893.35	5,787	2,893.35	5,787
21	5.12.01	12-mm plaster	21	sq.m	229.09	4,834	229.09	4,834	228.07	4,812	228.58	4,823
22	5.12.02.01	12-mm plaster	108	sq.m	184.02	19,929	184.02	19,929	182.75	19,792	183.38	19,860
23	5.12.03.01	6-mm plaster	36	sq.m	162.50	5,785	162.50	5,785	161.86	5,762	162.18	5,774
24	5.08.15.02	Steel window	6	sq.m	2,865.94	16,622	2,865.94	16,622	2,865.94	16,622	2,865.94	16,622
25	5.08.15.01	3-mm glass	6	sq.m	671.49	4,029	671.49	4,029	671.49	4,029	671.49	4,029
26	5.16.01.01	White wash	48	sq.m	19.83	944	19.83	944	19.83	944	19.83	944
27	5.16.02.01	Color wash	55	sq.m	21.10	1,154	21.10	1,154	21.10	1,154	21.10	1,154

S1.	Item				Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No	Code	Item of works	Quanti ty	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
8	5.08.21.04	Plastic door	2	each	3,337.34	6,675	3,337.34	6,675	3,337.34	6,675	3,337.34	6,675
9	5.15.02.01	Wall glazed tile	11	sq.m	1,140.29	12,543	1,140.29	12,543	1,139.02	12,529	1,139.67	12,536
30	5.16.10.02	Enamel paint	12	sq.m	90.68	1,052	90.68	1,052	90.68	1,052	90.68	1,052
1	7.01.01.01	Long pan	1	each	1,406.70	1,407	1,398.64	1,399	1,382.53	1,383	1,374.47	1,374
32	7.04.01.01	Hand wash basin	1	each	3,541.04	3,541	3,541.04	3,541	3,541.04	3,541	3,541.04	3,541
33	7.06.01.01	Bib cock	2	each	468.64	937	468.64	937	468.64	937	468.64	937
4	7.08.02.01	PVC pipe 12 mm	12	m	43.39	521	43.39	521	43.39	521	43.39	521
5	7.08.02.02	PVC pipe 19 mm	10	m	58.89	589	58.89	589	58.89	589	58.89	589
36	7.08.02.03	PVC pipe 25 mm	5	m	88.17	441	88.17	441	88.17	441	88.17	441
37	7.08.01.05	PVC pipe 150 mm	10	m	967.03	9,670	967.03	9,670	967.03	9,670	967.03	9,670
38	7.08.05.04	PVC rain water pipe	3	m	375.91	1,128	375.91	1,128	375.91	1,128	375.91	1,128
39	7.10.02.01	Plastic water tank	1	each	6,744.44	6,744	6,744.44	6,744	6,744.44	6,744	6,477.44	6,477
10	7.11.04.03	Septic tank 50 user	1	each	74,378.04	74,378	73,211.87	73,212	70,479.58	70,480	69,398.75	69,399
1	7.11.05.03	Soak well	1	each	85,995.43	85,995	86,271.75	86,272	81,650.28	81,650	80,633.93	80,634
12	7.11.01.01	Inspection pit	1	each	3,312.54	3,313	3,247.90	3,248	3,107.11	3,107	3,048.27	3,048
3	7.11.02.01	Pit cover slab	1	each	1,352.37	1,352	1,353.46	1,353	1,346.79	1,347	1,349.03	1,349
4	8.46.02.02	Centrifugal pump	1	each	8,489.13	8,489	8,489.13	8,489	8,489.13	8,489	8,489.13	8,489
45	8.01.02.01	Main switch	1	each	1,677.42	1,677	1,677.42	1,677	1,677.42	1,677	1,677.42	1,677
16	8.06.02.01	Wiring light point	5	each	1,163.53	5,818	1,163.53	5,818	1,163.53	5,818	1,163.53	5,818
17	8.06.02.02	Ceiling fan point	2	each	1,263.69	2,527	1,263.69	2,527	1,263.69	2,527	1,263.69	2,527
18	8.35.04	4- gang switch	2	each	543.98	1,088	543.98	1,088	543.98	1,088	543.98	1,088
19	8.35.05	1-gang switch & socket	2	each	289.02	578	289.02	578	289.02	578	289.02	578
50	8.31	Fluorescent lamp	2	each	872.14	1,744	872.14	1,744	872.14	1,744	872.14	1,744
51	8.35.06	fan regulator	2	each	382.31	765	382.31	765	382.31	765	382.31	765
52	8.41.03.03	Energy saving lamp	4	each	282.80	1,131	282.80	1,131	282.80	1,131	282.80	1,131
53	8.47.02	Starter	1	each	1,546.44	1,546	1,546.44	1,546	1,546.44	1,546	1,546.44	1,546
4	10.02.01	Boring 0-50 m	50	m	123.98	6,199	123.98	6,199	123.98	6,199	123.98	6,199
55	10.02.02	Boring 50-100m	50	m	136.18	6,809	136.18	6,809	136.18	6,809	136.18	6,809
56	10.03.01	Hand pump no.6	1	each	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502
57	10.03.02	GI pipe 38 mm	2	m	630.47	946	630.47	946	630.47	946	630.47	946
58	10.03.03	PVC pipe 38 mm	95	m	135.98	12,918	135.98	12,918	135.98	12,918	135.98	12,918
59	10.03.04	PVC strainer	4	m	209.53	733	209.53	733	209.53	733	209.53	733

S1.	Item		Quanti		Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No	Code	Item of works	ty	Unit	Unit rate	Amount						
60	10.03.05	Socket	16	each	16.50	264	16.50	264	16.50	264	16.50	264
61	10.03.06	PVC cap	1	each	60.01	60	60.01	60	60.01	60	60.01	60
62	10.08	Platform	1	each	2,721.89	2,722	2,677.85	2,678	2,572.99	2,573	2,521.84	2,522
63	10.01	Mobilization	1	LS	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000
64	10.06	Tests of water	1	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
65	10.07	Disinfection	1	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
66	10.05.01	Development	1	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
67	10.04	Filling	1	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
		Total				3,539,836		3,486,745		3,355,093		3,332,337

											Rate and am	ount in BDT
Sl.	Item	Item of works	Quantity	Unit -	Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No.	Code	item of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	5.05.01.01	Reinforced cement concrete works (1:2:4)	9.62	cu.m	8,649.89	83,212	8,665.29	83,360	8,588.97	82,626	8,611.73	82,845
2	5.06.01.01	M.S High strength deformed bar/ Twisted bar reinforcement	1,895.70	kg	81.86	155,182	81.86	155,182	81.86	155,182	81.86	155,182
3	8.01.02.01	Main/sub-main switches with fuse and natural line	1.00	each	1,677.42	1,677	1,677.42	1,677	1,677.42	1,677	1,677.42	1,677
4	8.03.02.01	Energy meter with cutout teak wood board	1.00	each	2,662.58	2,663	2,662.58	2,663	2,662.58	2,663	2,662.58	2,663
5	8.04.01	Single pole MCB, if necessary	1.00	each	487.10	487	487.10	487	487.10	487	487.10	487
6	8.06.05.01	PVC insulated and sheathed round or flat wire	117.00	m	126.53	14,804	126.53	14,804	126.53	14,804	126.53	14,804
7	8.07.01	Wooden cupboard 25-mm thick	1.00	each	1,366.86	1,367	1,366.86	1,367	1,366.86	1,367	1,366.86	1,367
8	L.M.R-1	33 watt CLF light	26.00	each	405.00	10,530	405.00	10,530	405.00	10,530	405.00	10,530
9	L.M.R-2	Lightshade	26.00	each	975.00	25,350	975.00	25,350	975.00	25,350	975.00	25,350
10	L.M.R-3	75-mm insulator	28.00	each	15.00	420	15.00	420	15.00	420	15.00	420
11	L.M.R-4	MS clamp	26.00	each	187.50	4,875	187.50	4,875	187.50	4,875	187.50	4,875
12	L.M.R-5	RCC Pole	26.00	each	15,000.00	390,000	15,000.00	390,000	15,000.00	390,000	15,000.00	390,000
13	L.M.R-6	PVC insulated and netted round or flat Aluminum wire	1,346.40	m	65.62	88,351	65.62	88,351	65.62	88,351	65.62	88,351
		Total				778,918		779,066		778,332		778,551

Table A3-18 Unit costs of street lighting for 1000 m (pitch 40m total 26 bulbs)

											Rate and amou	nt in BDT
S1.	Item	Item of works	Quantity	Unit	Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No.	Code	Itelli of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	2 2 0 1		102 00		105 20	10.044	105.29	10.044	105.29	10.044	105.29	10.044
1	2.2.01	Earthwork / Back fill	102.90	cu.m	105.38	10,844	105.38	10,844	105.38	10,844	105.38	10,844
2	3.2.11.04	Brick Flat Soiling	92.50	sq.m	317.26	29,347	307.65	28,458	288.04	26,644	277.71	25,688
3	5.3.10	Polythene	92.50	sq.m	18.36	1,698	18.36	1,698	18.36	1,698	18.36	1,698
4	4.3.22	Weep hole	67.00	no.	315.03	21,107	306.60	20,542	301.89	20,227	280.38	18,785
5	5.12.01	12mm 1:4 cement plaster	231.50	sq.m	229.09	53,034	229.09	53,034	228.07	52,798	228.58	52,916
6	5.03.05.01	Screed fall / fillet (CC	0.28	cu.m	7,880.87	2,207	7,791.16	2,182	7,594.92	2,127	7,524.83	2,107
		1:2:4)										
7	5.03.04.01	Lean concrete 1:3:6	9.30	cu.m	6,612.97	61,501	6,523.25	60,666	6,327.01	58,841	6,256.93	58,189
8	5.04.02	Brickwork 1:4	41.40	cu.m	5,931.23	245,553	5,805.39	240,343	5,535.12	229,154	5,418.58	224,329
		Total				425,290		417,767		402,332		394,557

Table A3-20 Unit costs of a RCC drain 0.750 m x 1.125 m x 0.15 m (type G) 100-m long primary drain

											Rate and amou	int in BDT
S1.	Item	Item of works	Quantity	Unit	Mymensing	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No.	Code	Itelli of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	2.2.1	Earthwork / Back fill	230.0	cu.m	105.38	24,237	105.38	24.237	105.38	24,237	105.38	24.237
2	3.2.11.04	Brick Flat Soiling	105.0	sq.m	317.26	33,312	307.65	32,303	288.04	30,244	277.71	29,160
3	5.3.10	Polythene	105.0	sq.m	18.36	1,928	18.36	1,928	18.36	1,928	18.36	1,928
4	4.3.22	Weep hole	67.0	no.	315.03	21,107	306.60	20,542	301.89	20,227	280.38	18,785
5	5.03.05.01	Screed fall / fillet (CC 1:2:4)	0.8	cu.m	7,880.87	5,911	7,791.16	5,843	7,594.92	5,696	7,524.83	5,644
6	5.05.01.01	Base Slab	15.8	cu.m	8,649.89	136,236	8,665.29	136,478	8,588.97	135,276	8,611.73	135,635
7	5.05.02.01	Vertical Wall	34.8	cu.m	12,334.10	428,610	12,356.06	429,373	12,247.23	425,591	12,279.69	426,719
8	5.06.01.01	M.S. Reinforcement Bar	2,540	kg	81.86	207,924	81.86	207,924	81.86	207,924	81.86	207,924
		Total				859,265		858,630		851,124		850,032

									_	_	Rate and amo	
Sl.	Item	Item of works	Ouantity	Unit -	Mymensingł	n Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No.	Code	item of works	Quantity	Oint	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	6.108	Sanitary latrine	1.00	each	7,193.00	7,193	7,250.96	7,251	7,019.39	7,019	6,984.69	6,985
2	5.02.01	Earthwork	1.60	cu.m	105.38	169	105.38	169	105.38	169	105.38	169
3	3.1.06.01	Sand fill	0.15	cu.m	594.63	89	594.63	89	558.98	84	487.69	73
4	5.03.04.01	Mass concrete	0.30	cu.m	6,612.97	1,984	6,523.25	1,957	6,327.01	1,898	6,256.93	1,877
5	5.03.06	75-mm lean concrete	0.80	sq.m	486.68	389	486.68	389	484.82	388	485.75	389
6	5.03.07	25-mm DPC	0.36	sq.m	279.70	101	277.39	100	272.32	98	270.91	98
7	5.03.10	Polythene	1.44	sq.m	18.36	26	18.36	26	18.36	26	18.36	26
8	5.04.01	Brickwork	1.08	cu.m	5,541.81	5,985	5,415.97	5,849	5,154.98	5,567	5,027.30	5,429
9	5.04.09.01	125-mm brickwork	5.40	sq.m	805.40	4,349	788.48	4,258	750.73	4,054	735.76	3,973
10	5.09.01.01	GI corrugated roof	2.56	sq.m	707.64	1,812	707.64	1,812	707.64	1,812	707.64	1,812
11	5.10.05	MS window	0.09	sq.m	2,332.86	210	2,332.86	210	2,332.86	210	2,332.86	210
12	5.12.02.01	12-mm plaster	0.80	sq.m	184.02	147	184.02	147	182.75	146	183.36	147
13	5.08.21.01	uPVC door	1.00	each	2,893.35	2,893	2,893.35	2,893	2,893.35	2,893	2,893.35	2,893
14	7.12.01.02	Long pan	1.00	each	1,109.60	1,110	1,109.60	1,110	1,109.60	1,110	1,109.60	1,110
		Total				26,457		26,260		25,474		25,190

Table A3-21 Unit costs of a single pit latrine

S1.	Item				Mymensing	h Region	Tangail	Region	Rangpur	Region	Dinajpur	ount in BDT Region
No.	Code	Item of works	Quantity	Unit -	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	5.02.01	Earthwork	5.70	cu.m	105.38	601	105.38	601	105.38	601	105.38	601
2	5.02.02	Sand filling	0.15	cu.m	874.04	131	874.04	131	833.75	125	753.17	113
3	5.03.01	Brick soling	2.40	sq.m	317.63	762	308.02	739	288.43	692	278.08	667
4	5.03.04.01	Mass concrete	0.30	cu.m	6,612.97	1,984	6,523.25	1,957	6,327.01	1,898	6,256.93	1,877
5	5.03.06	75-mm lean concrete	0.80	sq.m	486.68	389	486.68	389	484.82	388	485.75	389
6	5.03.07	25-mm DPC	0.50	sq.m	279.70	140	277.39	139	272.32	136	270.91	135
7	5.03.10	Polythene	1.44	sq.m	18.36	26	18.36	26	18.36	26	18.36	26
8	5.04.01	250-mm brick work	1.08	cu.m	5,541.81	5,985	5,415.97	5,849	5,154.98	5,567	5,027.30	5,429
9	5.04.10.01	125-mm brick work	8.90	sq.m	838.52	7,463	821.92	7,315	785.53	6,991	770.53	6,858
10	5.09.01.01	GI sheet roof	2.60	sq.m	707.64	1,840	707.64	1,840	707.64	1,840	707.64	1,840
11	5.10.05	Window grill	0.09	sq.m	2,332.86	210	2,332.86	210	2,332.86	210	2,332.86	210
12	5.12.01	12-mm plaster	0.80	sq.m	229.09	183	229.09	183	228.07	182	228.58	183
13	5.12.02.01	12-mm plaster	17.40	sq.m	184.02	3,202	184.02	3,202	182.75	3,180	183.38	3,191
14	5.16.01.02	White washing	17.40	sq.m	13.86	241	13.86	241	13.86	241	13.86	241
15	5.08.21.01	uPVC door	1.00	each	2,893.35	2,893	2,893.35	2,893	2,893.35	2,893	2,893.35	2,893
16	7.12.01.02	Long pan	1.00	each	1,109.60	1,110	1,109.60	1,110	1,109.60	1,110	1,109.60	1,110
17	7.01.05.01	Foot rest	2.00	each	189.39	379	189.39	379	189.39	379	189.39	379
18	7.08.01.04	100-mm PVC pipe	3.50	m	448.74	1,571	448.74	1,571	448.74	1,571	448.74	1,571
19	7.08.09.02	50-mm ventilation pipe	1.00	each	1,495.41	1,495	1,495.41	1,495	1,495.41	1,495	1,495.41	1,495
20	7.12.01.01	RCC rings	12.00	each	370.82	4,450	371.42	4,457	368.44	4,421	369.33	4,432
21	7.12.01.04	Y junction	1.00	each	132.28	132	132.46	132	131.60	132	131.85	132
22	7.11.02.02	Pit cover slab	2.00	each	1,571.14	3,142	1,472.42	2,945	1,564.65	3,129	1,567.26	3,135
		Total				38,330		37,805		37,208		36,907

Table A3-22 Unit costs of a twin pit latrine

											Rate and amo	
SI.	Item	Item of works	Quantity	Unit	Mymensing	n Region	Tangail	Region	Rangpur	0	Dinajpur	Region
No.	Code	item of works	Quantity	Olin	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	5.02.01	Earthwork with backfill	21.60	cu.m	105.38	2,276	105.38	2,276	105.38	2,276	105.38	2,276
2	5.02.02	Sand filling	7.60	Cu.m	874.04	6,643	874.04	6,643	833.75	6,337	753.17	5,724
3	5.03.01	Single layer brick flat	45.10	sq.m	317.63	14,325	308.02	13,892	288.43	13,008	278.08	12,541
-		soling		- 1		,		,		,	_,	,
4	5.03.04	Mass concrete (1:3:6)	3.40	cu.m	6,612.97	22,484	6,523.25	22,179	6,327.01	21,512	6,256.93	21,274
5	5.03.07	25-mm Damp proof	8.60	sq.m	279.70	2,405	277.39	2,386	272.32	2,342	270.91	2,330
		course		- 1.		,		<u> </u>		y-)
6	5.04.01	Brick work 250mm	5.30	cu.m	5,541.81	29,372	5,415.97	28,705	5,154.98	27,321	5,027.30	26,645
		(1:6)			,	,	,	,	,	,	,	,
7	5.04.10.01	125-mm Brick work	75.80	sq.m	838.52	63,560	821.92	62,302	785.53	59,543	770.53	58,406
8	5.13.01	25-mm Patent stone	25.80	sq.m	294.51	7,598	292.60	7,549	286.47	7,391	284.89	7,350
9	5.15.02.01	White glazed wall tiles	77.00	sq.m	1,140.29	87,802	1,140.29	87,802	1,139.02	87,705	1,139.67	87,755
10	5.15.03.01	Floor tiles	24.50	sq.m	1,444.59	35,392	1,444.59	35,392	1,443.32	35,361	1,443.95	35,377
11	5.03.10	Polythene	24.50	sq.m	18.36	450	18.36	450	18.36	450	18.36	450
12	5.05.03.01	RCC in tie beam and	1.60	cu.m	10,732.27	17,172	10,751.38	17,202	10,656.68	17,051	10,684.93	17,096
		lintels			- ,	.,		., .	- ,	. ,	.,	.,
13	5.05.04.01	RCC in beams	3.20	cu.m	11,373.00	36,394	11,393.25	36,458	11,292.90	36,137	11,322.83	36,233
14	5.05.05.01	RCC in slab	3.70	cu.m	11,212.82	41,487	11,232.13	41,559	11,133.85	41,195	11,163.35	41,304
15	5.05.01.01	RCC in footing	1.90	cu.m	8,649.89	16,435	8,665.29	16,464	8,588.97	16,319	8,611.73	16,362
16	5.05.02.01	RCC in Column	1.20	cu.m	12,334.10	14,801	12,356.06	14,827	12,247.23	14,697	12,279.69	14,736
17	5.06.01.01	MS Rod	950.00	kg	81.86	77,767	81.86	77,767	81.86	77,767	81.86	77,767
18	5.06.04	MS flat bar clamp	50.00	each	80.09	4,005	80.09	4,005	80.09	4,005	80.09	4,005
19	5.08 15.02	Window shutters & grill	2.40	sq.m	2,865.94	6,878	2,865.94	6,878	2,865.94	6,878	2,865.94	6,878
20	5.08.15.03	3-mm glass	2.40	sq.m	671.49	1,612	671.49	1,612	671.49	1,612	671.49	1,612
21	5.08.21.01	UPVC plastic door	6.00	each	2,893.35	17,360	2,893.35	17,360	2,893.35	17,360	2,893.35	17,360
22	5.08.21.04	UPVC plastic door	2.00	each	3,337.34	6,675	3,337.34	6,675	3,337.34	6,675	3,337.34	6,675
23	5.12.02.01	12-mm cement plaster	85.00	sq.m	184.02	15,642	184.02	15,642	182.75	15,534	183.38	15,587
24	5.12.03	6-mm cement plaster	29.50	sq.m	162.50	4,794	162.50	4,794	161.86	4,775	162.18	4,784
25	5.16.05.01	Plastic emulsion paint	143.00	sq.m	93.11	13,315	93.11	13,315	93.11	13,315	93.11	13,315
26	5.16.09.02	Weather coat paint	123.00	sq.m	110.38	13,577	110.38	13,577	110.38	13,577	110.38	13,577
27	5.16.10.02	Synthetic enamel paint	4.80	sq.m	90.68	435	90.68	435	90.68	435	90.68	435
28	7.01.01	Long pan	5.00	each	1,406.70	7,034	1,398.64	6,993	1,382.53	6,913	1,374.47	6,872
29	7.04.01.01	Hand wash basin	3.00	each	3,541.04	10,623	3,541.04	10,623	3,541.04	10,623	3,541.04	10,623
30	7.05.03.01	Urinals	4.00	each	2,405.96	9,624	2,405.96	9,624	2,405.96	9,624	2,405.96	9,624
31	7.08.01.05	PVC pipe 150 mm	19.00	m	967.03	18,374	2,403.90 967.03	18,374	967.03	18,374	967.03	18,374
32	7.08.09.02	3.66 m 50-mm diameter	19.00	each	1,495.41	1,495	1,495.41	1,495	1,495.41	1,495	1,495.41	1,495
52	7.08.09.02	Ventilation pipe	1.00	each	1,495.41	1,495	1,495.41	1,495	1,495.41	1,495	1,495.41	1,495
33	7.08.02.03	25-mm PVC pipe	8.00	m	88.17	705	88.17	705	88.17	705	88.17	705
34	7.08.02.01	12-mm PVC pipe	30.00	m	43.39	1,302	43.39	1,302	43.39	1,302	43.39	1,302
35	7.06.01.01	12-mm brass bib cock	11.00	each	468.64	5,155	468.64	5,155	468.64	5,155	468.64	5,155
36	7.06.06.01	12-mm CP pillar cock	3.00	each	1.069.93	3,210	1,069.93	3,210	1,069.93	3,210	1,069.93	3,210
37	7.06.07.01	125-mm Shower rose	1.00	each	883.96	884	883.96	884	883.96	884	883.96	884

Table A3-23 Unit costs of a public toilet

~!											Rate and amo	
Sl.	Item	Item of works	Quantity	Unit	Mymensing	0	Tangail I	0	Rangpur	0	Dinajpur	0
No.	Code	item of works	Quantity	oint	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
38	7.11.01.01	Inspection pit	3.00	each	3,312.54	9,938	3,247.90	9,744	3,107.11	9,321	3,048.27	9,145
39	7.11.04.02	Septic tank 100 user	1.00	each	108,013.03	108,013	106,300.35	106,300	102,282.14	102,282	100,692.68	100,693
40	7.37.02	Soak well	1.00	each	101,508.55	101,509	101,987.12	101,987	95,976.16	95,976	94,679.48	94,679
41	10.01	Mobilization	1.00	LS	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000
42	10.02.01	Boring 0-50 m	50.00	m	123.98	6,199	123.98	6,199	123.98	6,199	123.98	6,199
43	10.02.02	Boring 50-100 m	50.00	m	136.18	6,809	136.18	6,809	136.18	6,809	136.18	6,809
44	10.03.01	Hand pump no.6	1.00	each	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502
45	10.03.02	1.5-m GI pipe	1.50	m	630.47	946	630.47	946	630.47	946	630.47	946
46	10.03.03	38-mm PVC pipe	95.00	m	135.98	12,918	135.98	12,918	135.98	12,918	135.98	12,918
47	10.03.04	Strainer	3.50	m	209.53	733	209.53	733	209.53	733	209.53	733
48	10.03.05	Socket adaptor	16.00	each	16.50	264	16.50	264	16.50	264	16.50	264
49	10.03.06	PVC cap	1.00	each	60.01	60	60.01	60	60.01	60	60.01	60
50	10.04	Filling top of hole	1.00	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
51	10.05.01	Development of tube well	1.00	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
52	10.06	Test of water	1.00	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
53	10.07	Disinfection	1.00	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
54	10.08	Platform	1.00	each	2,721.89	2,722	2,677.85	2,678	2,575.99	2,576	2,521.84	2,522
55	8.01.02.01	Main switches	1.00	each	1,677.42	1,677	1,677.42	1,677	1,677.42	1,677	1,677.42	1,677
56	8.03.02.01	Meter	1.00	each	2,662.58	2,663	2,662.58	2,663	2,662.58	2,663	2,662.58	2,663
57	8.06.04.01	Concealed wiring light point	2.00	each	1,405.04	2,810	1,405.04	2,810	1,405.04	2,810	1,405.04	2,810
58	8.35.04	4- gang switch	2.00	each	543.98	1,088	543.98	1,088	543.98	1,088	543.98	1,088
59	8.35.05	1- gang switch with socket	2.00	each	289.02	578	289.02	578	289.02	578	289.02	578
60	8.41.03.05	20-watt energy saving lamp	6.00	each	345.41	2,072	345.41	2,072	345.41	2,072	345.41	2,072
61	8.46.02.02	Centrifugal pump 1 hp	1.00	each	8,489.13	8,489	8,489.13	8,489	8,489.13	8,489	8,489.13	8,489
62	8.30	Water tight lamp	1.00	each	1,673.53	1,674	1,673.53	1,674	1,673.53	1,674	1,673.53	1,674
63	8.47.02	Phase starter	1.00	each	1,546.44	1,546	1,546.44	1,546	1,546.44	1,546	1,546.44	1,546
64	7.10.02.02	Water tank 1000 l	1.00	each	11,840.73	11,841	11,840.73	11,841	11,840.73	11,841	11,840.73	11,841
		Total				915,110		911,087		892,886		887,005

											Rate and amo	ount in BDT
Sl.	Item	Item of works	Ouentity	Unit -	Mymensing	h Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No.	Code	item of works	Quantity	Unit -	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	2.1.01	Cleaning and grubbing	1.00	LS	100.00	100	100.00	100	100.00	100	100.00	100
2	5.03.01	Brick soling	1.56	sq.m	317.63	496	308.02	481	288.43	450	278.08	434
3	5.03.10	Polythene	1.56	sq.m	18.36	29	18.36	29	18.36	29	18.36	29
4	5.05.01.01	RCC in floor slab	0.12	cu.m	8,649.89	1,038	8,665.29	1,040	8,588.97	1,031	8,611.73	1,033
5	5.05.02.01	RCC in wall	0.30	cu.m	12,334.10	3,700	12,356.06	3,707	12,247.23	3,674	12,279.69	3,684
6	5.06.01.01	MS Rod	28.40	kg	81.86	2,325	81.86	2,325	81.86	2,325	81.86	2,325
7	5.18.04	MS gate	0.75	sq.m	6,327.04	4,745	6,327.04	4,745	6,327.04	4,745	6,327.40	4,746
8	5.16.10.02	Enamel paint	1.50	sq.m	90.68	136	90.68	136	90.68	136	90.68	136
		Total				12,568		12,562		12,490		12,486

Table A3-24 Unit costs of solid waste collection station

											Rate and amou	nt in BDT
S1.	Item	Item of works	Quantity	Unit	Mymensin	gh Region	Tangail I	Region	Rangpur	Region	Dinajpur	Region
No.	Code	Itelli of works	Quantity	Ullit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	20.1.07.01	Earth filling	114.50	cu.m	310.69	35,574	310.69	35,574	310.69	35,574	310.69	35,574
2	5.02.01	Earthwork	1.20	cu.m	105.38	126	105.38	126	105.38	126	105.38	126
3	5.03.04.01	Mass concrete	1.20	cu.m	6,612.97	7,936	6,523.25	7,828	6,327.01	7,592	6,256.93	7,508
4	5.03.01	Brick soling	78.60	sq.m	317.63	24,966	308.02	24,210	288.43	22,671	278.08	21,857
5	5.03.07	25-mm DPC	3.62	sq.m	279.70	1,013	277.39	1,004	272.32	986	270.00	981
6	5.02.02	sand filling	15.62	cu.m	874.04	13,653	874.04	13,653	833.75	13,023	753.17	11,765
7	5.04.01	250-mm brick work	2.50	cu.m	5,541.81	13,855	5,415.97	13,540	5,154.98	12,887	5,027.30	12,568
8	5.04.10.01	125-mm brick work	107.50	sq.m	838.52	90,141	821.92	88,356	785.53	84,444	770.53	82,832
9	5.05.01.01	RCC in footing	9.80	cu.m	8.649.89	84,769	8,665.29	84,920	8,588.97	84,172	8.611.73	84,395
10	5.05.02.01	RCC in column	2.97	cu.m	12,334.10	36,632	12,356.06	36,697	12,247.23	36,374	12,279.69	36,471
11	5.05.03.01	RCC in tie beam,	4.23	cu.m	10,732.27	45,398	10,751.38	45,478	10,656.68	45,078	10,684.93	45,197
	5.05.05.01	lintel	1.25	eu.m	10,752.27	10,000	10,701.00	10,170	10,000.00	10,070	10,001.95	10,197
12	5.06.01.01	MS rod	1,494.00	kg	81.86	122,299	81.86	122,299	81.86	122,299	81.86	122,299
13	5.06.02	MS roof truss	515.00	kg	116.72	60,111	116.72	60,111	116.72	60,111	116.72	60,111
14	7.08.05.04	100-mm PVC rain	2.00	m	375.91	752	375.91	752	375.91	752	375.91	752
		water pipe										
15	5.09.01.01	CI sheet roof	73.10	sq.m	707.64	51,728	707.64	51,728	707.64	51,728	707.64	51,728
16	5.12.01	12-mm plaster	73.20	sq.m	229.09	16,769	229.09	16,769	228.07	16,695	228.58	16,732
17	5.12.02.01	12-mmplaster	193.20	sq.m	184.02	35,553	184.02	35,553	182.75	35,307	183.38	35,429
18	5.16.01.01	White washing	193.20	sq.m	19.83	3,831	19.83	3,831	19.83	3,831	19.83	3,831
19	5.18.04	MS gate	8.00	sq.m	6,327.04	50,616	6,327.04	50,616	6,327.04	50,616	6,327.04	50,616
20	7.08.16	125-mm CI grating	2.00	each	197.59	395	197.59	395	197.59	395	197.59	395
21	244 (item)	150-mm MS pipe	6.80	m	2,788.00	18,958	2,788.00	18,958	2,788.00	18,958	2,788.00	18,958
	. /	~ ~						712,400				
		Total				715,074		712,400		703,621		700,126

											Rate and amou	int in BDT
Sl.	Item	Item of works	Quantity	Unit	Mymensin	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No.	Code	Item of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	2.1.01	Clearing & grubbing	1	LS	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000
2	2.1.05.01	Earth filling	2,590	cu.m	35.46	91,841	35.46	91,841	35.46	91,841	35.46	91,841
3	2.1.08.01	Manual compaction	2,590	cu.m	30.99	80,264	30.99	80,264	30.99	80,264	30.99	80,264
4	23.03.1	Turfing	1,550	sq.m	15.50	24,025	15.50	24,025	15.50	24,025	15.50	24,025
5	2.2.02	Earth work in excavation in drain	85	cu.m	17.05	1,449	17.05	1,449	17.05	1,449	17.05	1,449
6	5.03.09	Polythene	1,850	sq.m	18.36	33,966	18.36	33,966	18.36	33,966	18.36	33,966
7	5.20.05	Fence	310	sq.m	521.49	161,662	521.49	161,662	521.49	161,662	521.49	161,662
8	7.08.01.05	PVC pipe 150 mm	20	m	967.03	19,341	967.03	19,341	967.03	19,341	967.03	19,341
		Total				417,548		417,548		417,548		417,548

Table A3-26 Unit costs of solid waste disposal ground

											Rate and amou	unt in BDT
S1.	Item	Item of works	Quantity	Unit	Mymensin	gh Region	Tangail	Region	Rangpur	Region	Dinajpur	Region
No.	Code	Itelli of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	5 02 01	Deadle and	96.0		105.20	0.0(2	105 20	0.0(2	105.29	0.0(2	105.29	0.0(2
1	5.02.01	Earthwork	86.0	cu.m	105.38	9,063	105.38	9,063	105.38	9,063	105.38	9,063
2	5.02.02	Sand filling	38.0	cu.m	874.04	33,214	874.04	33,214	833.75	31,683	753.17	28,620
3	5.03.04,01	Mass concrete	1.2	cu.m	6,612.97	7,936	6,523.25	7,828	6,327.01	7,592	6,256.93	7,508
4	5.03.04.02	Mass concrete in floor	35.0	cu.m	6,753.63	236,377	6,664.37	233,253	6,469.10	226,419	6,399.37	223,978
5	5.03.01	Brick soling	336.0	sq.m	317.63	106,724	308.02	103,495	288.43	96,912	278.08	93,435
6	5.04.01	250-mm brickwork	7.8	cu.m	5,541.81	43,226	5,415.97	42,245	5,154.98	40,209	5,027.30	39,213
7	5.04.01	125-mm brickwork	258.0	sq.m	805.40	207,793	788.48	203,428	750.73	193,688	735.76	189,826
8	5.09.01.01	CI sheet roof	332.0	sq.m	707.64	234,936	707.64	234,936	707.64	234,936	707.64	234,936
9	5.06.02	MS work in roof truss	3,320.0	kg	116.72	387,510	116.72	387,510	116.72	387,510	116.72	387,510
10	5.10.02	Window shutter	2.0	sq.m	2,545.87	5,092	2,545.87	5,092	2,545.87	5,092	2,545.87	5,092
11	5.08.15.03	3-mm glass	2.0	sq.m	671.49	1,343	671.49	1,343	671.49	1,343	671.49	1,343
12	5.08.21.03	PVC door	2.0	each	3,014.38	6,029	3,014.38	6,029	3,014.38	6,029	3,014.38	6,029
13	5.12.02.01	12-mm plaster	340.0	sq.m	184.02	62,567	184.02	62,567	182.75	62,135	183.38	62,349
14	7.08.01.06	150-mm PVC pipe	96.0	m	967.03	92,835	967.03	92,835	967.03	92,835	967.03	92,835
15	7.09.01.01	100-mm MS pipe	78.0	m	2,562.92	199,908	2,562.92	199,908	2,562.92	199,908	2,562.92	199,908
		Total				1,634,552		1,622,744		1,595,354		1,581,646

Table A3-27 Unit costs of composting plant

Sl.	Item				Mymensin	gh Region	Tangail	Region	Rangpur	Region	Dinajpu	Region
		Item of works	Quantity	Unit				-				-
No.	Code		· ·		Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	10.02.01	Boring 0–50m	50.00	m	123.98	6,199	123.98	6,199	123.98	6,199	123.98	6,199
2	10.02.02	Boring 50-100m	50.00	m	136.18	6,809	136.18	6,809	136.18	6,809	136.18	6,809
3	10.02.03	Boring 100-152mm	52.00	m	150.02	7,801	150.02	7,801	150.02	7,801	150.02	7,801
4	10.02.02	Boring 152-200m	48.00	m	164.89	7,915	164.89	7,915	164.89	7,915	164.89	7,915
5	10.02.03	Hand pump no.6	1.00	each	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502
6	10.02.04	GI pipe 38 mm	1.50	m	630.47	946	630.47	946	630.47	946	630.47	946
7	10.02.05	PVC pipe 38 mm	195.00	m	135.98	26,516	135.98	26,516	135.98	26,516	135.98	26,516
8	10.02.06	PVC strainer	3.50	m	209.53	733	209.53	733	209.53	733	209.53	733
9	10.02.07	Socket	16.00	each	16.50	264	16.50	264	16.50	264	16.50	264
10	10.02.08	PVC cap	1.00	each	60.01	60	60.01	60	60.01	60	60.01	60
11	10.02.09	Platform	1.00	each	2,521.84	2,522	2,521.84	2,522	2,521.84	2,522	2,521.84	2,522
12	10.02.10	Mobilization	1.00	LS	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000
13	10.02.11	Tests of water	1.00	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
14	10.02.12	Disinfection	1.00	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
15	10.02.13	Development	1.00	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
16	10.02.14	Filling	1.00	LS	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
		Total				71,266		71,266		71,266		71,266

Table A3-28 Unit costs of installation of a tube well (200-m deep)

											Rate and am	
Sl.	Item	Item of works	Quantity	Unit	Mymensin	0 0	Tangail	0	Rangpur	0	Dinajpu	0
No.	Code		Quantity	om	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
l	3.2.08	Labor charge for picking up existing HBB	65.00	sq.m	37.19	2,417	37.19	2,417	37.19	2,417	37.19	2,417
	3.2.09.1	Labor charge for picking up existing BFS	65.00	sq.m	30.99	2,014	30.99	2,014	30.99	2,014	30.99	2,014
2	2.2.02	Excavation and backfilling earthwork	120.00	cu.m	17.05	2,046	17.05	2,046	17.05	2,046	17.05	2,046
3	3.1.06.01	Supply and fill sand of FM 0.80	24.30	cu.m	594.63	14,450	594.63	14,450	558.98	13,583	487.69	11,851
1	7.08.01.06	Supply and install PVC pipe diameter 200mm, min.5.3mm thick	100.00	m	1,506.33	150,633	1,506.33	150,633	1,506.33	150,633	1,506.33	150,633
5		Supply PVC 45/90 degree bends 200mm diameter	1.00	each	1,918.80	1,919	1,918.80	1,919	1,918.80	1,919	1,918.80	1,919
6		Supply and install PVC Tees 200 mm x 200 mm x 200 mm	1.00	each	2,306.60	2,307	2,306.60	2,307	2,306.60	2,307	2,306.60	2,307
		Supply and install S bend washouts 100-mm diameter	1.00	each	3,587.50	3,588	3,587.50	3,588	3,587.50	3,588	3,587.50	3,58
		Supply and install MS non return valve 200-mm diameter	1.00	each	37,500.00	37,500	37,500.00	37,500	37,500.00	37,500	37,500.00	37,50
		Supply and install MS sluice valve 200-mm diameter	1.00	each	31,250.00	31,250	31,250.00	31,250	31,250.00	31,250	31,250.00	31,25
0		Construction of sluice valve chamber with masonry	1.25	cu.m	5,541.81	6,927	5,415.97	6,770	5,154.98	6,444	5,027.30	6,28
4	5.03.04.01	Construction of concrete thrust and anchor block 1:3:6	0.10	cu.m	6,612.97	661	6,523.25	652	6,327.01	633	6,256.93	62
	5.12.02.01	12-mm plaster	5.25	sq.m	184.02	966	184.02	966	182.75	959	183.38	96
	5.05.01.01	RCC slab	0.34	cu.m	8,649.89	2,941	8,665.29	2,946	8,588.97	2,920	8,611.73	2,92
	5.06.01.01	MS rod	24.00	kg	81.86	1,965	81.86	1,965	81.86	1,965	81.86	1,96
5		Supply and install automatic air release valve 25-mm diameter	1.00	each	7,750.00	7,750	7,750.00	7,750	7,750.00	7,750	7,750.00	7,75
6		Test of pressure of pipeline	100.00	m	32.02	3,202	32.02	3,202	32.02	3,202	32.02	3,20
7		Disinfection of pipeline	100.00	m	12.20	1,220	12.20	1,220	12.20	1,220	12.20	1,22
8	3.2.14.01	Repair damaged road replacing HBB	65.00	sq.m	89.64	5,827	89.64	5,827	88.77	5,770	87.03	5,65
9	3.2.12.04	Repair damaged road replacing BFS	65.00	sq.m	48.23	3,135	48.23	3,135	47.86	3,111	47.11	3,06
		Total				282,717		282,556		281,231		279,18

Table A3-29 Unit costs o	f φ200	PVC pipeline	laying	(100-m long)
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											Rate and amo	unt in BDT
S1.	Item	Item of works	Ouantity	Unit	Mymensi	ngh Region	Tangail	Region	Rangpur	Region	Dinajpu	r Region
No.	Code	Item of works	Quantity	Unit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
1	5.02.01	Earthwork with backfill	27.7	cu.m	105.38	2919.026	105.38	2,919	105.38	2,919	105.38	2,919
2	5.02.02	Sand filling	48.3	cu.m	874.04	42216.132	874.04	42,216	833.75	40,270	753.17	36,378
3	5.03.01	Single layer brick flat soling	92.1	sq.m	317.63	29253.723	308.02	28,369	288.43	26,564	278.08	25,611
4	5.03.04.01	Mass concrete in foundation	2.7	cu.m	6,612.97	17855.019	6,523.25	17,613	6,327.01	17,083	6,256.93	16,894
5	5.03.04.02	Mass concrete in floor	5.7	cu.m	6,753.63	38495.691	6,664.37	37,987	6,469.10	36,874	6,399.37	36,476
6	5.03.07	25-mm Damp proof course	3.5	sq.m	279.70	978.95	277.39	971	272.39	953	270.91	948
7	5.04.01	Brick work 250 mm (1:6)	4.8	cu.m	5,541.81	26600.688	5,415.97	25,997	5,154.98	24,744	5,027.30	24,131
8	5.04.10.01	125-mm Brick work	93.8	sq.m	805.40	75546.52	788.48	73,959	750.73	70,418	735.70	69,009
9	5.13.01	25-mm Patent stone	56.8	sq.m	294.51	16728.168	292.60	16,620	286.47	16,271	284.89	16,182
10	5.15.02.01	White glazed wall tiles	39.6	sq.m	1,140.29	45155.484	1,140.29	45,155	1,139.02	45,105	1,139.67	45,131
11	5.03.10	Polythene	26.2	sq.m	18.36	481.032	18.36	481	18.36	481	18.36	481
12	5.05.17.04.01	RCC in tie beam and lintels	3.9	cu.m	10,732.27	41855.853	10,751.38	41,930	10,656.68	41,561	10,684.93	41,671
13	5.05.17.05.01	RCC in beams	4.4	cu.m	11,373.00	50041.2	11,393.25	50,130	11,292.90	49,689	11,322.83	49,820
14	5.05.17.06.01	RCC in slab	9.6	cu.m	11,212.82	107643.072	11,232.13	107,828	11,133.85	106,885	11,163.35	107,168
15	5.05.17.01	RCC in footing	4.8	cu.m	8,649.89	41519.472	8,665.29	41,593	8,588.97	41,227	8,611.73	41,336
16	5.05.17.03.01	RCC in Column	1.8	cu.m	12,334.10	22201.38	12,356.06	22,241	12,247.23	22,045	12,279.69	22,103
17	5.06.01.01	M S Rod	2,250.0	kg	81.86	184185	81.86	184,185	81.86	184,185	81.86	184,185
18	5.06.04	MS flat bar clamp	24.0	each	80.09	1922.16	80.09	1,922	80.09	1,922	80.09	1,922
19	5.08 14	Window shutters & grill	2.4	sq.m	2,649.10	6357.84	2,649.10	6,358	2,649.10	6,358	2,649.10	6,358
20	5.06.03	Fan hook	2.0	each	104.89	209.78	104.89	210	104.89	210	104.89	210
21	5.16.01.01	White washing inside	98.3	sq.m	19.83	1949.289	19.83	1,949	19.83	1,949	19.83	1,949
22	5.12.02.01	12-mm cement plaster	98.4	sq.m	184.02	18107.568	184.02	18,108	182.75	17,983	183.38	18,045
23	5.12.03	6-mm cement plaster	80.8	sq.m	162.50	13130	162.50	13,130	161.86	13,078	183.38	14,817
24	5.16.02.01	Color wash	98.5	sq.m	21.10	2078.35	21.10	2,078	21.10	2,078	21.10	2,078
25	5.08.15.03	3-mm glass	2.4	sq.m	671.49	1611.576	671.49	1,612	671.49	1,612	671.49	1,612
26	5.16.02.01	Enamel paint	25.8	sq.m	90.68	2339.544	90.68	2,340	90.68	2,340	90.68	2,340
27	7.05.01.01	Hand wash basin	1.0	each	3,541.04	3541.04	3,541.04	3,541	3,541.04	3,541	3,541.04	3,541

Table A3-30 Unit costs of a slaughter house

											Rate and amo	unt in BDT
S1.	Item	Item of works	Quantity	Unit	Mymensii	ngh Region	Tangail	Region	Rangpu	Region	Dinajpu	Region
No.	Code		· ·	Ollit	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount	Unit rate	Amount
28	5.18.01.01	Collapsible gate	8.4	sq.m	3,994.37	33552.708	3,994.37	33,553	3,994.37	33,553	3,994.37	33,553
29	5.18.04	MS door	2.1	sq.m	6,327.40	13287.54	6,327.40	13,288	6,327.40	13,288	6,327.40	13,288
30	5.22.01	Construction of drain	3.0	m	1,091.25	3273.75	1,074.81	3,224	1,038.23	3,115	1,024.13	3,072
31	7.06.01.03	Plastic bib cock	3.0	each	133.90	401.7	133.90	402	133.90	402	133.90	402
32	7.06.06.01	Pillar cock	1.0	each	1,069.93	1069.93	1,069.93	1,070	1,069.93	1,070	1,069.93	1,070
33	7.08.02.01	12-mm PVC pipe	14.0	m	43.39	607.46	43.39	607	43.39	607	43.39	607
34	7.08.02.03	25-mm PVC pipe	14.0	m	88.17	1234.38	88.17	1,234	88.17	1,234	88.17	1,234
35	7.11.01.01	Inspection pit	1.0	each	3,312.54	3312.54	3,247.90	3,248	3,107.11	3,107	3,048.27	3,048
36	7.11.02.02	Pit cover	1.0	each	1,571.14	1571.14	1,572.42	1,572	1,564.65	1,565	1,567.26	1,567
37	7.10.02.02	Plastic water tank	1.0	each	11,840.73	11840.73	11,840.73	11,841	11,840.73	11,841	11,840.73	11,841
		1,000 liter					,	,	,	,		,
38	7.11.04.04	Septic tank 30 user	1.0	each	48,792.52	48792.52	47,980.76	47,981	46,125.75	46,126	45,376.47	45,376
39	7.11.05.06	Soak well 30 user	1.0	each	73,406.15	73406.15	73,573.61	73,574	69,924.71	69,925	69,111.52	69,112
40	6.108	Sanitary latrine all	1.0	each	26,457.00	26457	26,260.00	26,260	25,474.00	25,474	25,190.00	25,190
		complete			,		_ • ,_ • • • • •	_ • ,_ • •	,	,.,.	,_,	,.,
41	10.02.01	Boring 0–50m	50.0	m	123.98	6199	123.98	6,199	123.98	6,199	123.98	6,199
42	10.02.02	Boring 50–100m	50.0	m	136.18	6809	136.18	6,809	136.18	6,809	136.18	6,809
43	10.03.01	Hand pump no.6	1.0	each	2,501.63	2501.63	2,501.63	2,502	2,501.63	2,502	2,501.63	2,502
44	10.03.02	GI pipe 38 mm	1.5	m	630.47	945.705	630.47	946	630.47	946	630.47	946
45	10.03.03	PVC pipe 38 mm	95.0	m	135.98	12918.1	135.98	12,918	135.98	12,918	135.98	12,918
46	10.03.04	PVC strainer	3.5	m	209.53	733.355	209.53	733	209.53	733	209.53	733
47	10.03.05	Socket	16.0	each	16.50	264	16.50	264	16.50	264	16.50	264
48	10.03.06	PVC cap	1.0	each	60.01	60.01	60.01	60	60.01	60	60.01	60
49	10.08	Platform	1.0	each	2,721.89	2721.89	2,677.85	2,678	2,572.99	2,573	2,521.84	2,522
50	10.01	Mobilization	1.0	LS	5,000.00	5000	5,000.00	5,000	5,000.00	5,000	5,000.00	5,000
51	10.06	Tests of water	1.0	LS	1,000.00	1000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
52	10.07	Disinfection	1.0	LS	1,000.00	1000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
53	10.05.01	Development	1.0	LS	1,000.00	1000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
54	10.04	Filling hole 0.6 m	1.0	LS	1,000.00	1000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
51	10.01	with concrete	1.0	LO	1,000.00	1000	1,000.00	1,000	1,000.00	1,000	1,000.00	1,000
55	8.01.02.03	Main switch	1.0	each	1,591.88	1591.88	1,591.88	1,592	1,591.88	1,592	1,591.88	1,592
55 56	8.06.02.01	Channel wiring	6.0	each	1,163.53	6981.18	1,163.53	6,981	1,163.53	6,981	1,163.53	6,981
57	8.06.02.02	Fan point	2.0	each	1,105.55	2527.38	1,263.69	2,527	1,263.69	2,527	1,263.69	2,527
58	8.31	Fluorescent lamp	3.0	each	872.14	2616.42	872.14	2,527	872.14	2,527	872.14	2,527
58 59	8.46.02.02	Centrifugal pump	1.0	each	8,489.13	8489.13	8,489.13	8,489	8,489.13	8,489	8,489.13	2,010 8,489
60	8.34.04	4-gang switch	2.0	each	543.98	1087.96	543.98	1,088	543.98	1,088	543.98	1,088
61	8.35.05	1 switch and socket	2.0	each	289.02	578.04	289.02	578	289.02	578	289.02	578
01	0.33.03	i switch and socket	2.0	Cault	209.02	5/0.04	209.02	578	269.02	578	209.02	578
		Total				1,079,756		1,075,276		1,055,527		1,048,501
		10(41				1,079,750		1,013,210		1,000,027		1,040,501

Annex 3-38

Preparatory Survey on the Northern Region Rural Development and Local Governance Improvement Project in Bangladesh

Annexes of Final Report

Annex 4

Public procurement regulations

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1 Procurement of goods and works

To ensure competitive and fair procurement of goods and works using public funds, the Government of the People's Republic of Bangladesh introduced the Public Procurement Regulation in 2003, the Public Procurement Act in 2006, and the Public Procurement Rules in 2008 (PPR-2008).

The objectives of PPR-2008 are as follows:

- Efficient procurement;
- To promote fair competition; and
- To make the tendering and awarding process transparent.

1.1 Selection methods of procurement

The following methods are applicable for procurement goods and related services, works and physical services. The procuring entity can select any of the following methods of procurement as per the appropriate regulations and procedures:

- Open Tendering Method;
- Limited Tendering Method;
- Direct Procurement Method;
- Two-Stage Tendering Method; and
- Request for Quotations (RFQ) Method.

The applicable thresholds by procurement type and tendering method are shown in Table A4-1.

The applicability of the above procurement methods are briefly described below:

(1) Open Tendering Method

The Open Tendering Method is the preferred method of procurement of goods and related services, works and physical services, unless the threshold levels or circumstances related to a specific requirement make it more appropriate to use one of the other procurement methods. The flowchart of this method is shown in Figure A4-1.

(2) Limited Tendering Method

The Limited Tendering Method is applicable when goods and related services, and works and physical services by reason of their specialized nature, are available only from a limited number of suppliers or contractors. The main criteria are that only a few suppliers or contractors who can supply or provide the specialized object of procurement (e.g., locomotives, specialized medical equipment, telecommunication equipment). The flowchart of this method is shown in Figure A4-2.

(3) Direct Procurement Method

The Direct Procuring Method is applicable for procurement of goods and related services, works and physical services, and intellectual and professional services directly from a single source without going through all the requirements of a full tendering process. The flowchart of this method is shown in Figure A4-3.

One of the usages of this method is to purchase or procure additional goods, works or services as an extension to a completed contract or as an addition to an ongoing or new contract.

However, this method shall under no circumstances be used as a means to avoid competition or favor any particular tenderer or consultant over others, or create any scope of discrimination among tenderers or consultants.

(4) Two-Stage Tendering Method

The Two-Stage Tendering Method is applicable in case of large or complex contracts of goods and related services, and works and physical services for a plant, factory, or modern communication system. For a complex type of works, it is advisable to learn from the tenderers about the most appropriate solutions to meet the procurement requirements. The flowchart of this method is shown in Figure A4-4.

(5) Request for Quotation Method

A procurement entity may undertake procurement by this method for readily available, standard off-the-shelf goods and related services, and low-value simple works and physical services, provided that the value is within the financial limit. The flowchart of this method is shown in Figure A4-5.

All the above procurement methods shall be guided and controlled by the procurement rules and regulations by the Government. The procurement methods are applicable for national as well as international procurement. However, additional conditions for selecting international procurement (e.g., the time allowed for submission of foreign tenders, and international standards of technical specifications) are stipulated in the procurement guidelines.

1.2 Process of pre-qualification, invitation for tender, tendering, evaluation, awarding and contract

(1) Pre-qualification

After preparing a Procurement Plan of the project and selecting a procurement method, the procuring entity may initiate pre-qualification proceedings, prior to the issue of an Invitation for Tender (IFT) for identifying applicants who are qualified to deliver the required goods and related services, and works and physical services.

A Pre-Qualification Invitation shall contain the following:

- Procuring entity's details (name, address, etc.);
- A brief description of the object of the procurement;
- Desired time of delivery or completion;
- Minimum qualifications required;
- Place and deadline of submission of a pre-qualification application; and
- Date of availability of a pre-qualification document.

If the procuring entity believes that it will be advantageous to form a Joint Venture, Consortium or Association (JVCA) under the assignment, a statement may be made in the invitation for pre-qualification that formation of a JVCA may be appropriate. Each firm or member of the JVCA shall be jointly and severally liable for all contractual obligations.

(2) Bid documents

After finalizing the bid package and the method of bidding, it is a responsibility of the procuring entity

for the preparation of the Bid Documents following the Standard Tender Document (STD) prepared and issued by the Central Procurement Technical Unit (CPTU). The Bid Documents shall include the following:

- Instructions for the preparation and submission of tenders
- Information on the date, time and place for receipt of tenders
- Tender submission sheet and sample formats for tender security, performance security, etc.
- General and specific conditions of contract
- Specifications and time limit for completion
- Tender validity period
- Evidence for the tenderer's post qualification verification
- Other legal clauses mentioned in the Procurement Rules and Regulations

(3) Invitation for Tender

An Invitation for Tender (IFT) is to be done with the applicable format and text given by the CPTU. The following procedures are to be applied during advertisement of an IFT.

- 1) The IFT shall be advertised in at least one Bangla language daily national newspaper and one English language daily national newspaper, both of which shall be widely circulated.
- 2) In addition to the national level advertisement, a procuring entity outside Dhaka shall consider advertising the IFT in two widely circulated local or regional newspapers at most for a maximum of two days.
- 3) Subsequent changes or amendments to any IFT shall be re-advertised preferably in the same newspapers and websites where the original IFT was published.
- 4) All invitations shall be advertised in the procurement entity's website and the CPTU's website within the prescribed limits.

(4) Tender closing time

- Open tendering for goods and related services, and works and physical services shall not be less than 28 days.
- Limited tendering for goods and related services shall not be less than 14 days, and for works and physical services shall not be less than 21 days.

Table A4-2 shows time for preparation by type of tendering methods.

There is also a provision on multiple closing of the bid in view of the logistical difficulties experienced by the procuring entities. In such case, the bids shall be opened in one place immediately after the deadline for submission of the tender (no more than three hours after the tender closing time).

(5) Tender Opening Committee

A Tender Opening Committee (TOC) shall be formed by each procuring entity comprising a minimum of three members. At least one shall be a member of the Tender Evaluation Committee (TEC) and other two from the procuring entity's department. However, the TEC can also be the TOC; the latter shall be formed by the Head of a Procuring Entity (HOPE), or an officer authorized by him/her or an approving authority.

The TOC will prepare a Tender Opening Sheet (TOS) that shall include the following:

• Name of work and other related information

- Withdrawal or modifications, if any
- Tender price
- Discount, if any
- Tender security details, if any
- Signatures of all the members of the TOC and tenderers or their authorized representative

No tender shall be rejected at tender opening except for late tenders. Upon completion, copies of the TOS shall be issued to the HOPE.

(6) Tender Evaluation Committee

The procuring entity shall appoint the Tender Evaluation Committee (TEC) consisting of at least five members, one of whom shall be from outside the procuring entity and have the professional knowledge required to assist in the evaluation. Depending on the specific nature of the evaluation, the outside members can be from government, autonomous organizations, semi-autonomous organizations, universities, or reputable professional bodies.

The Chairperson of the TEC may designate one of the members as Member Secretary of the TEC. The Chairperson of the TEC shall sign all requests for clarification and/or correction of errors in tenders.

The duties of TEC are as follows:

- Examine and evaluate all tenders.
- Prepare the Tender Evaluation Report and certify the report by jointly signing a recommendation to award the contract after completing the process of post-qualification.
- Submit the Tender Evaluation Report to the approving authority following the requirements of the Procurement Processing and Approval Procedures (PPAP).

a) Awarding and contract

The approving authority shall review and approve the award recommendation or raise objections within the time specified in the PPAP. If objections to the content of the report are raised, they should be sent to the Chairperson of the TEC that should meet and respond to the objections within three days. Such proposals shall be sent back in the same way as the one in which the request for approval was submitted.

b) Notification of Award and signing of contract

The procuring entity shall issue a Notification of Award (NOA) after receiving the approval of the award by the approving authority, prior to the expiry of the tender validity period and within one week of receipt of the approval.

The NOA shall state the following:

- Acceptance of the tender by the procuring entity
- Price at which the contract is awarded
- Amount of performance security and its format
- Date and time of performance security submission
- Date and time within which the contract shall be signed

The NOA shall be accepted in writing by the successful tenderer within seven working days from the date of award. The tenderer shall submit the requisite amount of performance security within

twenty-one (21) days from the date of notification of award.

If the successful tenderer fails to provide any required performance security or fails to sign the contract, the procuring entity shall proceed to award the contract to the next lowest evaluated tenderer, and do so by the order of ranking.

2 Procurement of intellectual and professional services

2.1 Methods and procedures

(1) Methods for procurement of intellectual and professional services and their use

The prime consideration in the selection of the consultant is the quality of a consultant's technical proposal. The cost of the services shall be considered judiciously. Otherwise, cost-predominant selection may result in inferior services or product and lead to rework or less economical work which ultimately will be a cost burden to the procuring entity. The procuring entity shall encourage the involvement of national consultants in assignments with international competition.

Depending on the nature and complexity of assignment, the following two methods may be used for selection of consultants:

- **Quality and Cost Based Selection (QCBS)**. This method shall take into account the quality of the proposal and the cost of the service.
- Selection under Fixed Budget (SFB). This method is appropriate only for simple and preciously defined assignment and fixed budget.

(2) Procedures for Quality and Cost Based Selection

The procedures are as follows:

- 1) To prepare a shortlist of interested applicants, a request for an Expression of Interest (EOI) is to be advertised.
- 2) Prepare the Request for Proposal (RFP) to be sent to the shortlisted consultants.
- 3) After receiving the RFP, the Proposal Evaluation Committee (PEC) shall evaluate the proposal in three stages:
 - 1. The Technical Proposal shall be evaluated first.
 - 2. The Financial Proposal of the technically responsive applicants shall be opened in the presence of the applicants or their representative.
 - 3. A combined evaluation of Technical and Financial Proposals to select the winning proposal and to invite the winning applicant for negotiations.

The flowchart of this method is shown in Figure A4-6.

(3) Procedures for Selection under a Fixed Budget

The procedure of Selection under a Fixed Budget (SFB) method is similar with the QCBS method except the following:

- To prepare a shortlist of the interested applicants, a request for EOI is to be advertised.
- In the RFP, budget excluding taxes will be mentioned and applicants will be asked to provide the best Technical and Financial Proposals within the budget.
- The consultant shall guarantee in the Terms of Reference (TOR) that they will perform the

excepted tasks within the budget.

- The applicants shall provide breakdown of their costs for the different activities as mentioned in RFP, failure of which leads rejection of proposal.
- The proposals that exceed the indicated budget shall be rejected, and the highest-ranked Technical Proposal among the rest shall be selected and invited to negotiate.

The flowchart of this method is shown in Figure A4-7.

(4) Other methods for procurement

The following are the other methods for procurement of intellectual and professional services:

- Least Cost Selection (LCS)
- Selection Based on Consultant's Qualifications (SBCQ)
- Selection amongst Community Service Organizations (CSOs)
- Single Source Selection (SSS)
- Selection of consultants by a Design Contest (DC)
- Selection of Individual Consultants (SIC)

2.2 Processing of Expressions of Interest

(1) Submission of Expressions of Interest

To prepare a shortlist and to issue the RFP, request for EOI shall be advertised. The time for preparation of EOI is minimum 14 days for National Procurement and minimum 21 days for International Procurement.

The EOI request shall contain at least the following:

- The name and the address of the procuring entity
- A brief description of the assignment detailing scope of services
- Instruction to provide information on experience, resources, professional staff, delivery capacity, to show the qualifications for the assignment
- The place and deadline for submission of the written EOI
- Any other information which the procuring entity considers helpful to the applicants

(2) Opening of Expressions of Interest

- The EOI may be submitted by courier, mail, fax or e-mail.
- There shall be no public opening for the EOI.
- A procuring entity shall convene a meeting of the Proposal Opening Committee (POC) immediately after the deadline for submission mentioned in the advertisement, to open the EOI and record the names of the applicants and other pertinent details.
- The POC after opening and recording shall send the EOI received to the PEC.

(3) Assessment of Expressions of Interest and approval of shortlist, etc.

The PEC shall prepare a shortlist of the applicants who are best qualified to undertake the assignment. The PEC shall review the appropriateness of the applicants using a qualification scale (not marking) of Excellent, Very Good, Good, and Poor to determine the best combination of qualified applicants. The information requested in EOI to be reviewed is as follows:

- Summary of the facilities and areas of expertise of the applicants;
- Similar work descriptions;
- Experience in similar operating environments and conditions;
- Availability of appropriate experience and professional qualifications and adequate resources to carry out the assignment; and
- Managerial strength and financial capacity.

After the assessment, the PEC shall prepare a shortlist of not less than four (4) and not more than seven (7), preferably six (6). The PEC shall send their report with recommendation to the Head of the Procuring Entity (HOPE) for approval.

If the PE feels that the RFP shall be issued on an international basis the shortlist shall include not more than two (2) firms from the same country and at least one (1) firm from a developing country.

If the shortlisted applicants are less than four, then the PEC shall review the assignment to verify that:

- the format of the request for EOI was correct;
- it meets the requirements of the procuring entity; and
- it was properly advertised.

If the process was found in compliance with the above rules, the PEC can recommend the shortlist with less than four applicants to the HOPE for approval.

If greater competition is sought by the HOPE, re-advertisement permission may be given by the HOPE with making appropriate amendments to make it attractive to the consulting firms ensuring wider publicity.

If after re-advertising, the number of re-assessed and shortlisted applicants is less than four, the shortlist should be considered as final and the RFP shall be issued to the lower number of shortlisted applicants.

After approval of the EOI Assessment Report by the HOPE or an officer authorized by him or her, all applicants participating in the EOI shall be informed whether or not they have been shortlisted by the procuring entity.

(4) Preparation of Terms of Reference

The TOR should not be too detailed or inflexible so that applicants are able to propose their own methodology, staffing and comments. The responsibilities of the procuring entity or its beneficiary entity and the consultant shall be clearly defined in the TOR.

The scope of services described in the TOR shall be consistent with the available budget.

(5) Preparation and issue of Request for Proposal document

A procuring entity shall prepare a Request for Proposal (RFP) Document as per applicable Government standard RFP Documents and distribute this document to the shortlisted applicants.

The procuring entity shall use only the applicable standard RFPs most suitable for each case. The procuring entity shall normally not change the standard RFP Document. Any specific issues shall be addressed in the Proposal Data Sheet (PDS) and the PCC.

(6) Submission and Opening of Proposals

The applicants shall consider the following while submitting proposals:

- A shortlisted firm is not allowed to form a JVCA with a non-shortlisted firm without the approval of the procuring entity.
- A short listed firm shall not participate in more than one proposal.
- It is desired that a majority of the key professionals be permanent employees of the firm or have a stable working relationship with the firm.
- Individual consultants shall sign the curricula vitae with date.
- Accuracy in the curricula vitae and commitment of key professionals with the proposal.
- A key professional shall not be proposed by more than one firm, except for a nominated sub consultant.
- Non-compliance of the above will result in rejection.

2.3 Evaluation of proposals, negotiations and completion of the process

(1) Evaluation of technical proposals

- 1) The PEC shall evaluate all Technical Proposals following the RFP and relevant provisions of the Act and these Rules.
- 2) If any member(s) of PEC have business or other links to the applicants, such members shall be replaced.
- 3) Under QCBS, SFB, and LCS methods, the PEC shall examine and evaluate the Technical Proposal as specified in the RFP.
- 4) The PEC members themselves shall evaluate the score of applicants, by which the applicants shall be declared as responsive or non-responsive.
- 5) Once the technical proposal is received and opened, no applicant is allowed to change any substance of the proposal.
- 6) If only one proposal achieves the minimum Technical point, then with the approval of the HOPE or authorized officer by HOPE, Financial Proposal will be opened and examined.
- 7) If the procuring entity receives a single Proposal by the deadline, provided all the shortlisted Applicants have been requested to, then it shall forward the single proposal to the PEC for evaluation.
- 8) Each member of the PEC shall evaluate the proposal individually and average of the points given by all the members shall be taken.
- 9) If a major difference arises in the points assigned by an individual evaluator, then the Chairperson shall look into the matter and ask the concerned evaluator to justify it.
- 10) This evaluation shall be discarded if the evaluator has no convincing grounds.
- 11) If the justification of the evaluator has convincing grounds, then a new PEC shall be assembled in which this evaluator will be a member.
- 12) A Proposal Evaluation Report shall be prepared showing the required minimum technical points attributed to each proposal for selecting in the process of combined technical and financial evaluation.
- 13) The Technical Evaluation Report shall be submitted to HOPE or any officer authorized by HOPE. If the approving authority is an officer higher than the HOPE then an officer immediate below the procuring entity shall preside over the PEC.

(2) Evaluation of financial proposals

1) After the approval of the technical evaluation report by the HOPE or authorized officer, the PEC

shall invite the applicants who attained at least the minimum technical points specified in the RFP.

- 2) At the public opening, the PEC shall announce the technical points for each proposal that has received the technical points and respective price.
- 3) The financial offer shall be checked and any error in arithmetical calculation found shall be notified to the applicant.
- 4) If pricing of activities was required, activities and items described in the Technical Proposal but not priced shall be assumed to be included in the prices of other activities or items.
- 5) If an activity or line item is quantified in the Financial Proposal differently from the Technical Proposal, the EC shall correct it in the Financial Proposal so as to make it consistent with the Technical Proposal.
- 6) Reimbursable items' prices shall also be verified in the same way. If it is determined that an item has been included that is not required by the Consultant, it shall be omitted and not considered in the financial evaluation.
- 7) In case of a Lump-Sum Form of Contract, no corrections shall be applied to the Financial Proposal.

(3) Combined technical and financial evaluation for Quality and Cost Based Selection

- 1) The technical score shall be calculated by multiplying the score points gained by the applicant with the weighting.
- 2) The financial score of each proposal shall be determined by giving 100 points to the lowest financial proposal and other proposals pro-rata point basis, reduced by the same percentage that the cost of their proposal is higher than that of the lowest cost. Thus the score is obtained.
- 3) The summation of technical score and financial score gives the combined score. The consultant having the highest combined score shall be invited for contract negotiation.

(4) Negotiations

- 1) After evaluation of the proposals, a PEC shall:
 - in case of QCBS method, review the combined Technical and Financial Evaluation Report, and invite the highest-scoring consultant in the combined Technical and Financial Evaluation for negotiation;
 - in case of FBS method, invite the consultant that submitted the highest-ranked Technical Proposal within the budget for negotiation; and
 - in case of LCS method, invite the consultant that quoted the lowest price among those who passed the minimum technical points for negotiations.
- 2) The procuring entity shall notify the successful consultants that their proposal has been accepted and to sit for negotiation by fixing a date so that a contract can be concluded within the proposal validity date.
- 3) To conclude the contract, the PEC shall negotiate with the successful consultant on the following components:
 - Methodology
 - Work plan and activity schedule
 - Organization and staffing
 - Deliverables
 - Training inputs
 - Client or Procuring Entity's inputs
 - Reimbursable
 - Proposed Contract Price

(5) Failure of negotiations and rejection of all proposals

- 1) If the negotiations fail and all proposals are non-responsive and unsuitable, the procuring entity, with the approval of the HOPE, may reject all the proposals under the following grounds:
 - Major deficiencies in response to the RFP are found in the proposals; and
 - The cost proposals are substantially higher than the estimated budget and could not be bridged during negotiations;
- 2) If the HOPE decides to reject all the proposals, the procuring entity shall reassess the proposed TOR including budget and undertake an accurate review of the RFP with the shortlist to reduce the risk of non-responsive proposals.

(6) Approval process

- 1) The evaluation Report with its recommendation and minutes of the negotiations shall be submitted to the approving authority.
- 2) The approving authority shall consider the Evaluation Report and take a decision following the Government order for Delegation of Financial Powers;
- 3) The approving authority shall communicate its decision to the HOPE and other concerned.

(7) Signing of contract

- 1) The approving authority and the successful consultant shall sign agreed minutes of negotiations and initiate the proposed draft contract agreement.
- 2) After receiving the approval for the signing of the contract, the procuring entity shall invite the successful consultant to sign the contract if no complaint has been lodged or still under consideration.
- 3) The consultant shall not be required to submit performance security after receiving an award of contract.
- 4) The procuring entity shall assure that the consultant shall be contractually obligated and this provision has been included in the RFP. If the performance of the services does not meet the standard and requirements, the consultant must re-perform the service at its own expense or to indemnify the procuring entity for losses.

(8) Completion of the process

- 1) After signing of the contract with the successful consultant, a procuring entity shall inform all other consultants whose proposal was technically responsive that they have been unsuccessful;
- 2) The procuring entity shall post in its website the name of the consultant to which the contract was awarded.
- 3) Information on the award of contracts exceeding the amounts (BDT 5 million and above) shall be posted on the CPTU's website.

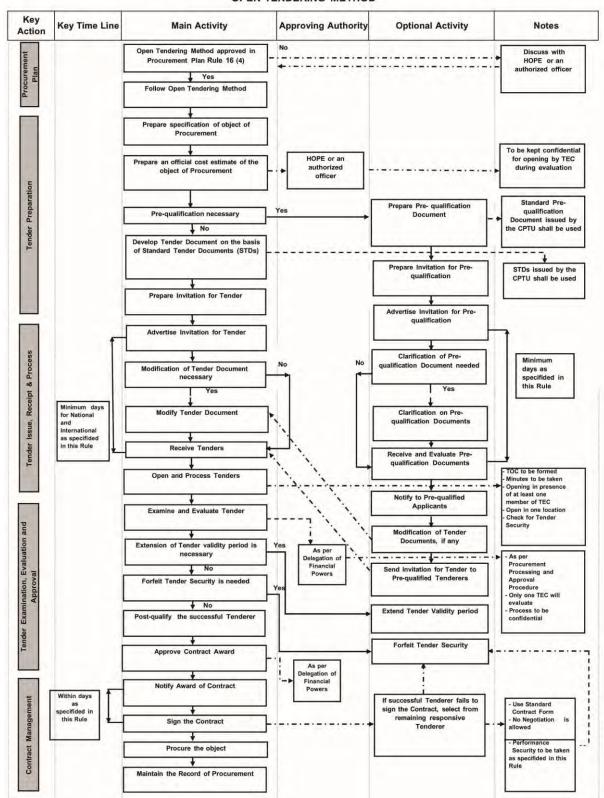
			0
Procurement Type	National/ International	Tendering Method	Threshold (BDT)
	Procurement		
	National	RFQ Method	up to 0.5 million
Procurement of	International		
Goods	National	Limited Tendering Method	up to 2.5 million
Guous	National	Open Tendering Method	above 2.5 million
	International	Open Tendering Method	any value
	National	Single Stage and Two Stage Tendering	
	International	method Procurement under	
Supply & Installation of Plant & Equipment		"Turnkey Contract"	
I lant & Equipment	National	Prequalification	above 150 million
	International		
	National	RFQ Method	up to 0.5 million
	International		
Works	National	Limited Tendering Method	up to 10 million
WOIKS	Procurement		
	National	Open Tendering Method without	up to 350 million
	Procurement	Prequalification	
Works or Design	National	Open Tendering Method	above 350 million
Build Infrastructure	National	Prequalification	above 350 million
Source: PPTLI (2008)			

Table A4-1 Applicable thresholds by procurement types and tendering methods

Source: PPTU (2008)

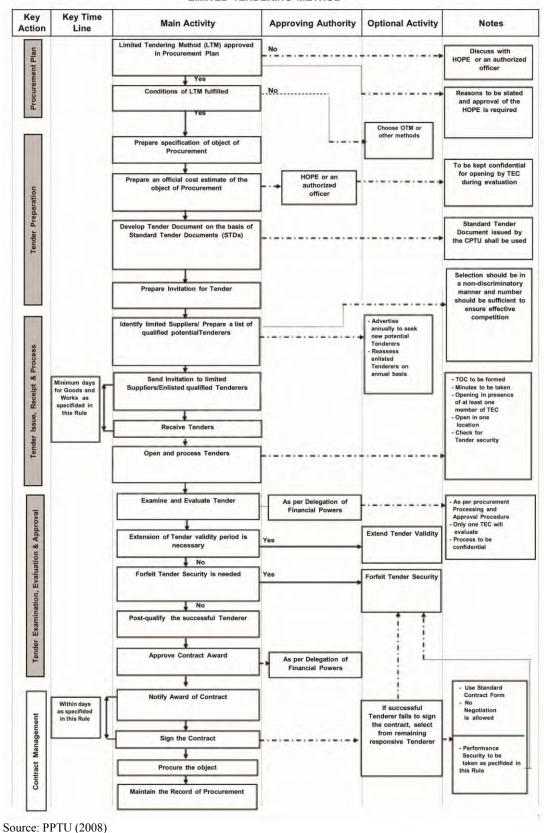
Table A4-2 Time for preparation by type of tendering methods

Time for preparation and submission of Tenders from the date of advertisement
for National Procurement of Goods, Works and Physical Services under the Open Tendering Method
• Not less than fourteen (14) days for Procurement up to BDT 3 million
• Not less than twenty-one (21) days for contacts above BDT 3 million and up to BDT 50 (fifty) million,
• Not less than twenty-eight (28) days for contacts above BDT 50 (fifty) million,
• Not less than fourteen (14) days for emergency Procurement following a catastrophe,
• Not less than fourteen (14) days for re-tendering
Time for preparation and submission of Tenders from the date of publication of advertisement
in the newspaper under Limited Tendering Method
• Not less than fourteen (14) days
• Time for re-Tendering can be reduced to seven (7) days
• Seven (7) days for Procurement
• Below seven (7) days in the case of national disasters with the approval of Head of Procuring Entity
Time for submission of Technical Proposal in the 1 st stage of Two-stage Tendering
• Forty-two (42) days from the date of publication of advertisement in the newspaper
Time for submission of the Tender Evaluation Report of the 1 st stage
• Seven (7) days
The Minimum Time for Preparation for the 2 nd stage in Two-stage Tendering
• Twenty-one (21) days
Time for preparation and submission of Tenders for International Procurement
of Goods and related Services, and Works and physical Services
• Not less than forty-two (42) days from the date of publication of advertisement in the newspaper in case of
Open Tendering Method
• Not less than twenty-eight (28) days from the date of publication of advertisement in the newspaper in case of
re-Tendering
• Not less than forty-two (42) days from the date of publication of advertisement in the newspaper in 1 st stage
and not less than twenty-one (21) days for preparation in 2 nd stage in case of Two-Stage Tendering Method
Source: DDTU (2008)



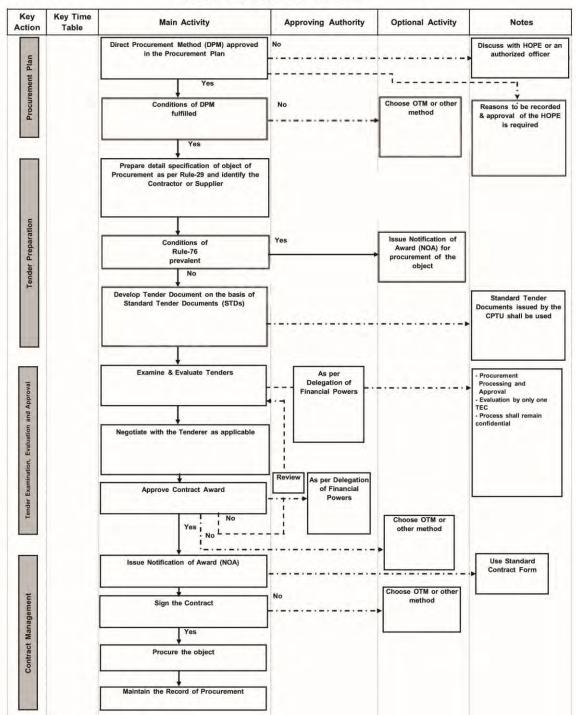
OPEN TENDERING METHOD

Figure A4-1 Flowchart of Open Tendering Method



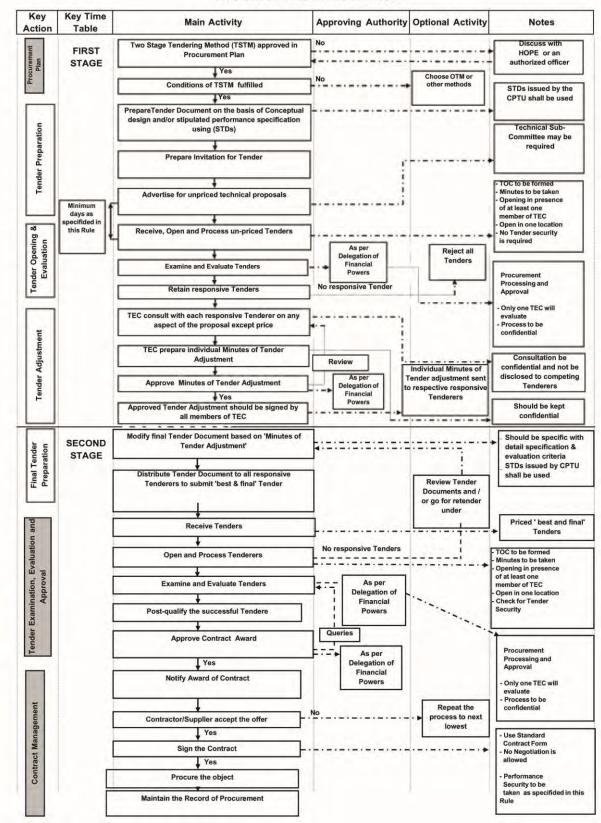
LIMITED TENDERING METHOD

Figure A4-2 Flowchart of Limited Tendering Method



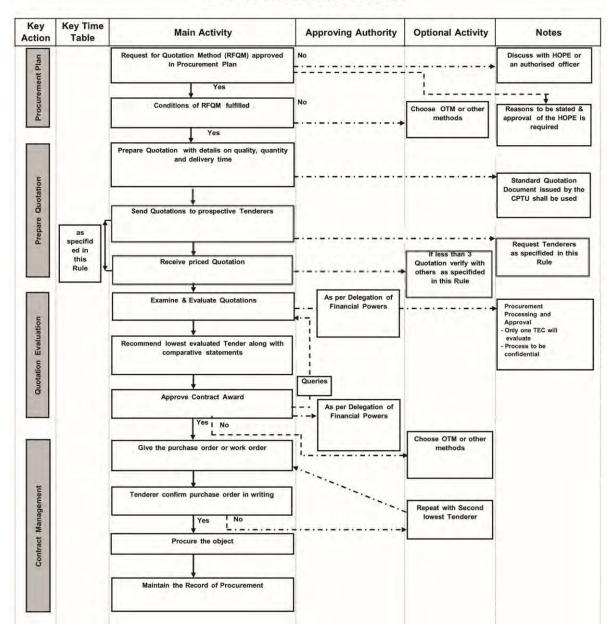
DIRECT PROCUREMENT METHOD

Figure A4-3 Flowchart of Direct Procurement Method

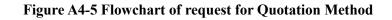


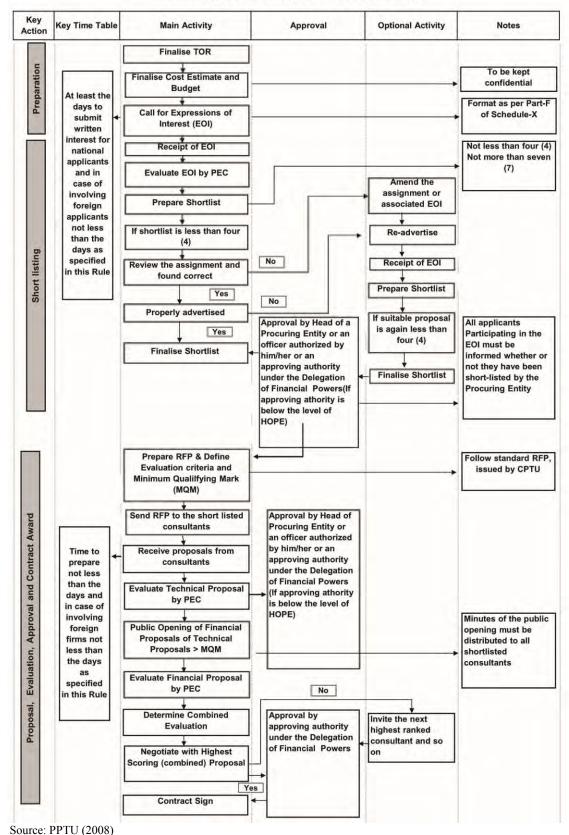
TWO STAGE TENDERING METHOD





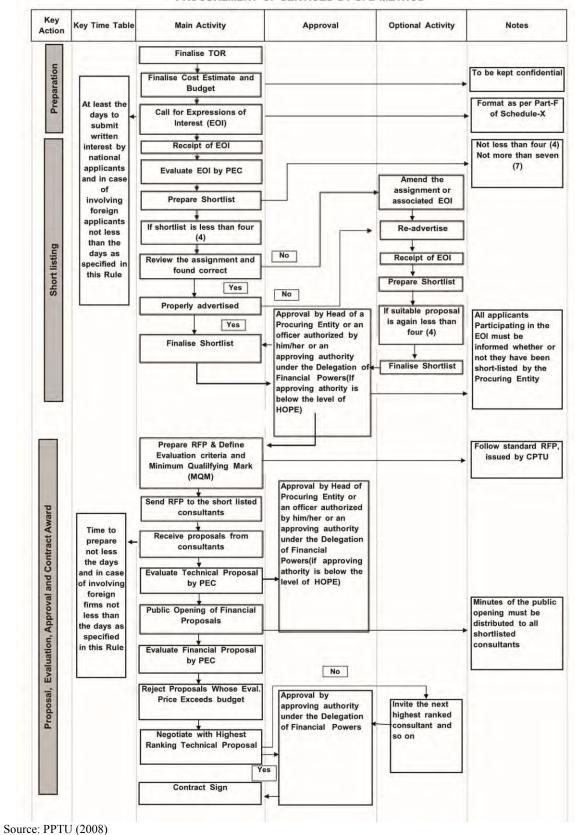
REQUEST FOR QUOTATION METHOD





PROCUREMENT OF SERVICES BY QCBS METHOD

Figure A4-6 Flowchart of procurement of services by Quality & Cost Based Selection Method



PROCUREMENT OF SERVICES BY SFB METHOD

Figure A4-7 Flowchart of procurement of services by selection under a Fixed Budget Method

Annex 5

Leasing procedure of government-owned market

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1 Procedure of leasing hat-bazaar

The Government issued the Guideline on Government Hat-Bazaar¹ Management, Lease Procedures and Distribution of Income on September 27, 2011, by repealing the Guideline on Government Hat-Bazaar Management, Lease Procedures and Distribution of Income among Union Parishad/Pourashava/City Corporation issued on February 7, 2008, memo no. projei-2/ha-5/2008/116/1(5500) and all other related orders.

1.1 Authority for giving lease

Each Upazila, Parishad, Pourashava, or City Corporation shall be responsible to lease out the hat-bazaars under its management and located in its jurisdiction. If any hat bazaar or bazaar is located within the jurisdiction of more than one district, the leasing out activities shall be taken over by the respective Divisional Commissioner and the lease money will be proportionately distributed as per the guideline.

- The lease value shall be less than BDT 150,000 for the Bangladesh calendar year 1414 (2008).
- The lease money shall be distributed and the remaining 46 % of the money shall be given to Union Parishad.
- If the lease money exceeds BDT 150,000, then a hat-bazaar shall be reserved for the respective Union.

If no hat-bazaar is available in any union with a lease value below BDT 150,000 in the Bangladesh calendar year1414, then the hat-bazaar with the lowest lease value in the Bangladesh calendar year 1414 shall be reserved with the approval of Upazila Parishad.

1.2 Procedures of invitation and submission of tender

The lease of a hat-bazaar shall be given for one Bangladesh calendar year (Baishakh-Chaitra, 1st12th). The leasing activity of a year shall be completed by 20th Chaitra, i.e., 20th day of the last month of the Bangladesh calendar year.

Government value: The government value of a hat-bazaar shall be mentioned in the lease notice. The government value is the average value of the last three years. It should be noted that, if khash collection was done within the last three years, then the money collected through khash collection shall be considered. If toll/khash collection is suspended for a part of the year due to any legal obstacle, then the government value shall be ascertained in consideration of the value for the entire year. However, if toll/khash collection is suspended for a year, then the government value shall be ascertained in consideration committee shall be ascertained in consideration of the previous year(s)' value. The tender evaluation committee shall fix the government value and submit it to the respective council meeting for approval of the newly established hat or the hat for which no lease was made earlier. The government value for the subsequent years shall be ascertained following the highest quoted value.

Schedule price: The lease value for leasing out a hat-bazaar shall be as follows:

- Up to BDT 100,000: the lease value is BDT 500;
- More than BDT 100,000 to 200,000: the lease value is BDT 1,000; and
- From BDT 200,000 and for every 100,000 or fraction thereof: the lease value shall be BDT 200 along with BDT 1,000.

¹ A hat is a market that is open a few days a week, while a bazaar is a daily market.

[Hereinafter "lease value" means the government value]

1) The following action shall be taken for easily available of the tender application before the submission of the tender:

The application form for participating in the tendering process can be collected from the following offices before submission of tender documents:

- The tender application for the hat-bazaars under a Upazila Parishad office of the Deputy Commissioner (DC), office of the Upazila Nirbahi Officer (UNO), office of the Assistant Commissioner (land), Sonali Bank-Upazila branch and police station.
- For the hat-bazaars under Pourashava: respective Pourashava office and the offices as mentioned above.
- For the hat-bazaars under a City Corporation: respective City Corporation office, regional office of City Corporation, respective Divisional Commissioner, respective Metropolitan Police Commissioner and respective DC office.
- 2) The following arrangements shall be made in respect to submission of tender documents:
 - The tender document for hat-bazaars under Upazila Parishad shall be submitted at the office of UNO, Assistant Commissioner (land), office of the Police Super, and office of the DC.
 - For hat-bazaars under Pourashava, the tender document shall be submitted at the office of respective Pourashava, UNO, Assistant Commissioner (land), office of the Police Super, and office of the DC.
 - For hat-bazaars under City Corporation, the tender document shall be submitted at the office of respective City Corporation, regional offices, respective Divisional Commissioner and office of the respective DC.
- 3) The tender documents for leasing government hat-bazaars shall be submitted in a closed envelope. The person who submits the tender shall deposit 30% of the quoted value along with the tender through bank draft or pay-order. 25% of such money shall be adjusted with lease value and the remaining 5% shall be kept as security money. If the lessee fails to clean the hat-bazaar on a regular basis or inflicts any damage to it, the security money shall be used to cover repair expenses. The unused security money shall be refunded to the depositor after the lease year is over.
- 4) The submitted tender with the highest value shall be accepted. However, tenders shall be solicited again if such value seems below the government value. Then tenders shall be solicited for a third time if the highest value in the second round seems below the government value. If the value in the third time is below the government value, a report on the reasons for not getting a reasonable lease value shall be submitted to respective DC along with the minutes of the Upazila Parishad general/special meeting in case of a hat-bazaar under Upazila Parishad and along with the minutes of the Pourashava general/special meeting in case of hat-bazaar under B&C category Pourashavas. At the same time, steps shall be taken for khash collection (collection by the concerned government authority itself). Within 15 days from the date of the report received, the DC shall resolve the matter at his level through an appropriate decision. In such situation for an A category Pourashava and City corporation, the report shall be submitted along with an appropriate proposal to a Local Government Division for decision.

1.3 Tender evaluation and leasing out

1) The Tender Evaluation Committee shall assess the tenders within three working days from the

date of submission and submit to the Upazila Parishad Chairman its recommendation. The Upazila Parishad Chairman shall approve the recommendation within seven working days.

- 2) In case of hat-bazaars under Pourashava, the Pourashava Tender Evaluation Committee shall submit its recommendation to the Pourashava Mayor for his approval, through Chief Executive Officer/Secretary within three working days from the date of tender submission. The Pourashava Mayor shall approve the recommendation within seven working days.
- 3) Agreement: The Upazila Parishad Chairman/Pourashava Mayor or Administrator/City Corporation Mayor or the officers nominated by them shall sign the hat-bazaar lease agreement under the respective jurisdiction. The Commissioner or Deputy Commission of the respective Division may sign the agreement under special circumstances.
- 4) While the hat-bazaar is leased out and the lease money is received, but if the hat-bazaar could not be handed over to the lessee for any reason, or if the lessee is compelled not to collect tolls after it is handed over, the lease money may be reimbursed proportionately to the lessee.

1.4 Activities for khash collection

- 1) There shall be a committee of *khash* (collecting toll in absence of lessee) collection for the hat-bazaar under Upazila Parishad. The committee shall be formulated as follows:
 - UNO shall be the Chairperson, Assistant Commissioner (land) is Member Secretary, and other seven members as mentioned in the Government order.
- 2) Khash Collection Committee for B and C category Pourashava shall be as follows:
 - The Mayor/Administrator shall be the Chairperson, Secretary of the respective Pourashava shall be the Member Secretary, and other three members as mentioned in the Government order.
- 3) Khash Collection Committee for A category Pourashava shall be as follows:
 - The Mayor/Administrator of the Pourashava shall be the Chairperson, Secretary of the respective Pourashava shall be the Member Secretary, and other four members as mentioned in the Government order.

The Khash Collection Committee shall bear the operating cost of khash collection. However, the cost must be limited to 10% of the khash collection amount.

The collected khash, after deducting the operating cost, shall be deposited as follows: 15% as Value Added Tax (VAT) and 5% as tax in the respective head.

1.5 Resolution of objection/appeal

Any objection or appeal against the decision of the approving authority shall be dealt with by the respective authority within the time specified in this Circular.

1.6 Distribution procedure of lease money received from hat-bazaar lease

1) The income from a hat-bazaar under Upazila Parishad shall be distributed as follows:

- 5% of the lease money shall be deposited to the government through treasury chalan² in the head '7- Land Revenue' within seven working days of receiving the lease money.
- 20% of the lease money shall be deposited in '4-lease from hat-bazaar lease' for payment of salary of secretary, peon and *choukider*.
- 15% of the lease money shall be spent for maintenance or development of the respective hat-bazaar by the decision of the Upazila hat-bazaar management committee following PPR.
- 10% of the lease money shall be deposited in the Upazila Development Fund for development of hat-bazaars in the respective Upazila.
- 5% of the lease money shall be deposited in the concerned Union Parishad. It shall be treated as revenue income of that Union.
- 4% of the lease money shall be deposited to Bank account, No. SB. 12100399772 of Sonali Bank, Ramna Corporate Branch, Dhaka for the freedom fighters welfare within seven days; and
- The remaining 41 % shall be treated as revenue income of the Upazila.
- 2) Distribution procedure of lease money of City Corporation/Pourashava
 - With the lease processing cost deducted, 5% of the lease money shall be deposited by treasury chalan to the Government in '7- Land Revenue' within seven days.
 - 45% of the lease money shall be spent for maintenance or development of the respective hat-bazaar under the Pourashava/City Corporation.
 - 4% of the lease money shall be deposited to Bank account, No. SB. 12100399772 of Sonali Bank, Ramna Corporate Branch, Dhaka for the freedom fighters welfare within seven days; and
 - The remaining 46% shall be treated as the revenue income of the Pourashava/City Corporation.

1.7 Hat-bazaar management committee

The Upazila Hat-bazaar Management Committee, Pourashava Hat-bazaar Management Committee, and City Corporation Hat-bazaar Management Committee shall be formed as per guidelines in the Government order. The respective committee shall perform the duties as specified.

1.8 Cancellation of leasing-out authority and actions to be taken

The respective DC shall take actions including cancellation of the leasing-out authority of such Upazila Parishad and B and C category Pourashava Mayor, if it engages any of the following irregularities: (1) failure to lease out the hat-bazaars under their jurisdiction; (2) failure to spend 25% of the lease money for respective/least developed hat-bazaars under Upazila Parishads' and 45% of the lease money for respective/least developed hat-bazaars under Pourashava's; (3) failure to deposit the specified share of the lease money into the government heads, hand over the hat-bazaars' possession without receiving full amount of the lease money or without completing the lease agreement and the respective DC leases out such hat-bazaars. Similarly, the Divisional Commissioner shall take actions including cancellation of the leasing-out authority of respective Pourashava Mayor/administrator and Chief Executive Officer of City Corporation, if such irregularities are observed in A-category Pourashava, DC and City Corporation and the respective Divisional Commissioner leases out such hat-bazaars.

1.9 Income tax and Value Added Tax

1) An income tax of 5% to be collected from the lessee on the settled lease amount at the time of leasing out of hat-bazaars: The issue of income tax collection shall be mentioned in the notice for tender invitation. The collected income tax shall be deposited into the following head of accounts:

² Chalan means a deposit form.

As per clause 39(3)2(20) of Income Tax Ordinance, 1984, the collected income tax money shall be deposited into '1/1141/0000/0101 income tax companies' head, if the lessee belongs to 'Company' status and the collected income tax money shall be deposited into '1/1141/0000/0111 beyond income tax company' head, if the lessee belongs to beyond the company status.

2) A VAT of 15% to be collected from the lessee on the settled lease amount at the time of leasing out of hat-bazaars: The issue of VAT collection shall be mentioned in the notice for tender invitation. The collected VAT money shall be deposited by the leasing authority into the code number '1/1133/0000/0311' through treasury chalan within the time stipulated by the VAT authority or within seven days, whichever is earlier.

Annex 6

Household survey on socioeconomic conditions in Pourashavas and Unions

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1 Objectives

The household survey was conducted for the following objectives: 1) to identify socioeconomic conditions in urban and rural areas; 2) to identify impacts of urbanization and growth of an urban area on households in adjacent rural areas; and 3) to confirm the impacts of rural infrastructure investment, i.e., road and market improvement, on the socioeconomic conditions of beneficiary households. In the survey, Pourashavas and Unions were considered to represent urban and rural areas, respectively. For the second objective, the survey area included Unions adjacent to rapidly growing Pourashavas. In addition, for the third objective, it included Unions along roads that were recently improved and Unions connected to Growth Centers that were recently improved or developed.

2 Methods

2.1 Sampling Design

In both Pourashavas and Unions, households were sampled and asked questions based on a structured questionnaire. Due to time and budgetary constraints, the sample size was limited to 216 households in ten Pourashavas and 16 Unions in five Districts. Although the sample was too small to be representative of the total population in the Project area and to be used for undertaking statistical inference, it is sufficient to generate indicative figures regarding the survey objectives.

Given the small sample and various issues to be covered by the survey, not random sampling but purposive sampling was applied to ensure variation in characteristics of sampled households and areas. The sampling method is described below.

(1) Districts

In the first step of the sampling, three Districts from Rangpur Division, i.e., Dinajpur, Lalmonirhat, and Nilphamari Districts, were selected, while two Districts from Mymensingh area, i.e., Netrokona and Tangail Districts, were selected. The selection intended to include both more urbanized and less urbanized Districts from each Division by taking into account the extent to which the Districts were growing and urbanizing. Dinajpur and Tangail Districts were considered to be more urbanized, and the rest were considered less urbanized.

(2) Pourashavas

Sampling of Pourashavas

Ten Pourashavas in total were selected, consisting of three category-A, three category-B, and four category-C Pourashavas. Considering the categories of Pourashavas to largely reflect the extent of urbanization, the selection was designed to cover evenly Pourashavas of all the three categories in order to identify socioeconomic conditions of Pourashavas at different levels of urbanization. In addition, Pourashavas that have received assistance by donor-supported projects such as the Urban Governance and Infrastructure Improvement Project are excluded from the survey. The selected Pourashavas are listed in Table A6-1.

Sampling of households in Pourashavas

In each Pourashava, 12 households in total were sampled, among which four were located in old towns, four in new towns, and four in slums. "Old town" is defined as an area that has been a residential area for 30 years or more. "New town" is defined as an area that has been recently developing as a residential area. In each old town, new town, and slum, four households were sampled from different living situations such as income level and occupation. For the identification of old towns, new towns, and slums and slums and selection of the households, consultation with Pourashava Mayors, councilors, and

other stakeholders was held in each Pourashava.

(3) Unions adjacent to rapidly growing Pourashavas

In order to identify impacts of urbanization and growth of a Pourashava on households living in adjacent rural areas, eight Unions in total adjacent to category-A or B Pourashavas, which are considered to be rapidly growing Pourashavas, were selected for the household survey. The process of selecting Unions and sampling households were the following:

- 1) Firstly, for the selection of the Unions, four category-A and B Pourashavas, i.e., Birampur, Nilphamari, Tangail, and Mohonganj Pourashavas, were selected from the ten Pourashavas that were chosen for the survey based on the selection process described in (2) above. Since the impacts of the growth in Pourashavas were of interest, category-A Pourashavas were given more priority than category-B Pourashavas.
- 2) Secondly, in respect of each Pourashava, two Unions were selected based on consultation with Upazila Engineers of the LGED, Pourashava Mayors and councilors, and other stakeholders.
- 3) Lastly, in each selected Union, six households were sampled from different living situations and occupations. For this final selection, consultation with Union Chairperson and councilors were held. Table A6-1 lists the selected Unions.

(4) Unions along recently-improved roads

For the third objective to confirm the impacts of rural infrastructure improvement, four Unions in total along roads improved either in or after 2008 were sampled based on the following process:

- 1) Firstly, one District was selected in each Division.
- 2) Secondly, in each selected District, two Unions along roads that were recently improved were sampled in consultation with Executive Engineer and Upazila Engineers of the LGED.
- 3) Lastly, in each sampled Union, six households were sampled from different living situations and occupations based on consultation with Union Chairperson and councilors. The sampled Unions are listed in Table A6-1.

(5) Unions connected to recently-improved Growth Centers

As well as the Unions along recently-improved roads, four Unions in total connected to Growth Centers that were improved or developed either in or after 2008 were sampled for the third objective of the household survey. In the four Unions, 24 households in total were sampled. The sampling process is the same as that for the Unions along recently-improved roads.

District	Pourashavas ¹	Unions near Pourashavas that are rapidly developing ²	Unions along improved roads	Unions connected to developed Growth Center
Rangpur Division				
Dinajpur	Birampur (A) Parbatipur (B) Hakimpur (C)	Pali Prayegpur (Birampur) Mukundupur (Birampur)		
Lalmonirhat	Patgram (B)			
Nilphamari	Nilphamari (A)	Itakhola (Nilphamari) Kundupukur (Nilphamari)	Luxmichap Khoksha Bari	Kachukata Ramnagar
Mymensingh area				
Tangail	Tangail (A) Kalihati (B) Dhanbari (C)	Dyenna (Tangail) Karatia (Tangail)		
Netrokona	Mohonganj (B)	Borkashiya Birampur (Mohonganj)	Bakuljora	Gaokandia
	Durgapur (C)	Maganshiadar (Mohonganj)	Birishiri	Kakairgara
No. of households	120	48	24	24

Table A6-1 Sampled Pourashavas and Unions and number of sampled households

Note: 1. A, B, and C in parentheses denote categories of Pourashavas. 2. In parentheses, names of Pourashavas that are adjacent to corresponding Unions are given.

2.2 Questionnaire

The same questionnaire was utilized for all respondents sampled from Pourashavas and Unions. The following is the structure of the questionnaire. The questionnaire in its entirety is in the last section of this annex. The respondents in Pourashavas were not asked Questions in Sections 11 and 12, while all respondents were asked the rest of the questions.

- 1) Survey administration
- 2) Basic information
- 3) Asset and owned facilities
- 4) Hygiene and environment
- 5) Income
- 6) Expenditure
- 7) Employment
- 8) Agriculture
- 9) Market
- 10) Traffic
- 11) Impact of rural roads
- 12) Impact of Growth Center
- 13) Access to services and facilities
- 14) Migration
- 15) Community
- 16) Others

3 Characteristics of sample households

(1) Basic information of the sample households

Table A6-2 summarizes characteristics of sampled households. It is obvious that the households in

slums have fewer assets and facilities than those in old and new towns. A very high proportion, 25%, of the households in slums own rickshaws, which reflects the fact that rickshaw puller is a common occupation in slums. No significant differences were seen among households in the three kinds of Unions. The proportion of those having electricity and televisions was higher in the Unions adjacent to Pourashavas than in the rest of the Unions. The distance from the nearest Pourashavas is the shortest for those living the Unions adjacent to Pourashavas, as the sampling intended.

Item	Type of	Type of Unit Pourashava		a	Union				
	statistics		Old town	New	Slum	Adjacent to	Along	Connected to	
				town		Pourashava	improved	improved GC	
							road		
No. of HH (N)	frequency	1	40	40	40	48	24	24	
Age of HH head	mean	year	51.7	45.6	43.2	45.6	45.2	45.3	
No. of HH members	mean	person	5.4	5.4	5.2	5.7	5.3	4.8	
No. of HH members aged 15-59	mean	person	3.5	3.3	2.7	3.5	3.6	2.9	
Number of rooms	mean	room	3.3	3.6	1.7	2.7	2.4	2.3	
Having electricity connection	proportion	%	100	90	65	75	21	38	
Having mobile phones	proportion	%	95	95	63	79	67	67	
Having televisions	proportion	%	88	80	40	56	29	29	
Having sanitary toilet	proportion	%	98	95	68	85	88	87	
Having agricultural land	proportion	%	55	65	2	69	67	75	
Having leased-in agricultural land	proportion	%	10	25	8	33	21	17	
Having bicycles	proportion	%	43	35	18	54	50	58	
Having motorbikes	proportion	%	40	40	3	25	21	21	
Having cars	proportion	%	3	3		2			
Having rickshaw	proportion	%	5	10	25	6	4	4	
Distance from nearest Pourashava	proportion	km	n.a	n.a	n.a	3.7	10.6	9.5	

Table A6-2 Characteristics of sample households

Legend: HH = household, n.a = not applicable

(2) Employment

As shown in Table A6-3, the questionnaire asked the respondents about the economic activities and employment status of sample households' members aged 15 and above. More people were engaged in agriculture/fishery/livestock activities in sample households from Unions than in those from Pourashavas, whereas more people from Pourashavas were engaged in trade activities. In comparison with the people in old and new towns, those in slums included more people engaged in industry/construction activities who were mostly daily workers and people engaged in transport/ communication activities who were mainly rickshaw pullers. People engaged in household activities were mostly housewives.

With regard to employment status, farmers were more likely to be from the sample households in Unions than those in Pourashavas, while self-employed people in non-agriculture sectors were more likely those in Pourashavas. Among those in slums, many people were daily workers.

Economic activity/		Pouras	hava		Union				
employment status	Old town	New town	Slum	Total	Adjacent to Pourashava	Along improved road	Connected to improved GC	Total	
Number of people aged 15+	N=156	N=147	N=118	N=421	N=188	N=92	N=74	N=354	
Economic activity									
Agriculture/fishery/livestock	8%	7%	3%	6%	22%	30%	30%	26%	
Industry/construction		3%	13%	5%	4%	1%	5%	3%	
Transport/communication	3%	4%	9%	5%	5%	2%	4%	4%	
Trade	16%	16%	15%	16%	6%	2%	11%	6%	
Education	4%	5%		4%	1%	2%		1%	
Household	40%	40%	38%	39%	42%	38%	46%	42%	
Public administration/defense	4%	4%		3%	1%	3%	1%	1%	
Non-government public service	4%	3%	3%	3%	1%	1%		1%	
Jobless	4%	5%	10%	6%	7%	2%		4%	
Student	12%	7%	3%	8%	10%	15%	3%	10%	
Other	4%	5%	5%	5%	2%	2%		2%	
Employment status									
Farmer	8%	5%		8%	19%	18%	20%	19%	
Self-employed in non-agriculture	22%	23%	24%	22%	12%	8%	12%	11%	
Employee of private enterprise	9%	10%	8%	9%	5%	3%		3%	
Government official	4%	6%		4%	1%	3%	1%	2%	
Daily worker		2%	20%		5%	13%	18%	10%	
Housework in his/her house	40%	40%	35%	40%	42%	36%	46%	41%	
Jobless	4%	5%	11%	4%	7%	3%		5%	
Student	12%	7%	3%	12%	10%	15%	3%	10%	
Other	1%	1%		1%					

Table A6-3 Economic activities and employment status of household members aged 15 and above

(3) Income

The sample households were asked about their primary, secondary, and third income sources. Table A6-4 shows distribution of the households according to their largest income sources. The primary source was non-farm self-employment for 48% of those in Pourashavas, non-daily work in non-farming for 20%, and daily work in non-farming for 10%. In composition with those living in old and new towns, a larger portion, 28%, of those in slums rely on daily work in non-farming. Among those in Unions, 38% referred to farming as their primary income source; 22% referred to non-farm self-employment; 14% referred to daily work in non-farming; 13% referred to daily work in farming.

Income sources		Poura	shava		Union			
	Old	New	Slum	Total	Adjacent to	Along	Connected to	Total
	town	town			Pourashava	improved	improved GC	
						road		
Number of observations	N=40	N=40	N=40	N=120	N=48	N=24	N=24	N=96
Farming	18%	8%	3%	9%	33%	42%	42%	38%
Fishery	3%			1%	4%			2%
Livestock	3%			1%				
Daily work in farming		5%		2%	8%	21%	13%	13%
Non-daily work in farming		10%	5%	5%		4%		1%
Non-farm self-employment	48%	45%	50%	48%	29%	13%	17%	22%
Daily work in non-farming		3%	28%	10%	10%	8%	25%	14%
Non-daily work in non-farming	28%	20%	13%	20%	13%	13%	4%	10%
Remittance	3%	3%	3%	3%				
Other		8%		2%	2%			1%

Table A6-4 Distribution of households by largest income source

The sample households were asked about their income in the last 12 months. Table A6-5 summarizes the average amount of annual income and its composition. The average income of those in Pourashavas was BDT 234,878, of which 43% was gained from non-farm self-employment and 16% was from non-daily work in non-farming. The income of those in slums was only BDT 84,633, of which 50% was from non-farm self-employment such as rickshaw pulling and 31% was from daily work in non-farming. The average income of those in Unions was BDT 185,511, 46% of which was from farming and 26% of which was from non-farm self-employment. Overall, the income composition was similar to the distribution of households by their largest income sources.

Income source		Poura	shava		Union				
	Old town	New town	Slum	Total	Adjacent to Pourashava	Along improved road	Connected to improved GC	Total	
Number of observations	N=40	N=40	N=40	N=120	N=48	N=24	N=24	N=96	
Average annual income (BDT)	255,000	365,000	84,633	234,878	210,993	161,871	158,190	185,511	
Composition by income sources (%)									
Farming	12%	8%	3%	9%	39%	60%	48%	46%	
Fishery	1%	2%		1%	4%		1%	3%	
Livestock	1%	5%	0%	3%	6%	1%	3%	4%	
Daily work in farming		1%	2%	1%	1%	8%	4%	3%	
Non-daily work in farming	1%	1%	4%	1%	1%	3%		1%	
Non-farm self-employment	45%	39%	50%	43%	35%	8%	20%	26%	
Daily work in non-farming	4%	4%	31%	7%	4%	6%	11%	5%	
Non-daily work in non-farming	22%	14%	6%	16%	8%	9%	6%	8%	
Remittance	2%	6%	3%	4%	1%	4%	1%	1%	
Other	5%	12%	0%	8%	1%	3%	7%	3%	

Table A6-5 Amount and composition of annual income

The sample households were asked whether and why their total income of the last 12 months had increased or decreased compared with in 2008. 90 out of 120 respondents in Pourashavas and 75 out of 96 in Unions answered it had increased; small numbers of respondents, 12 in Pourashavas and nine in Unions, answered it has decreased; the remaining 18 in Pourashavas and 12 in Unions answered it had not changed (Table A6-6).

Table A6-6 also presents distribution of households by primary reasons for income increase and decrease. As the primary reasons for the increase, 49% of the households in Pourashavas experiencing the increase mentioned "business environment improved"; 24% mentioned "wage rate of non-farm employment increased"; 10% mentioned "prices of crops/fish/meat increased." Of those in Union, 32% cited "prices of crops/fish/meat increased"; 17% referred to "wage rate of farm employment increased" and "wage rate of non-farm employment increased."

Primary reasons for increase	_	Poura	shava		Union			
and decrease of income	Old town	New town	Slum	Total	Adjacent to Pourashava	Along improved	Connected to improved GC	Total
						road	I	
Households whe								
Number of respondents whose income has increased	N=28	N=33	N=29	N=90	N=38	N=20	N=17	N=75
Distribution of households by primary reason for the increase (%)								
Prices of crops/fish/meat increased	21%	9%		10%	29%	30%	41%	32%
Business environment improved	36%	58%	54%	49%	18%	5%	18%	15%
Job opportunities increased	14%	3%	4%	7%	11%	5%	6%	8%
Wage rate of farm employment increased	7%	3%	11%	7%	11%	30%	18%	17%
Wage rate of non-farm employment increased	18%	24%	29%	24%	16%	20%	18%	17%
Number of working household members increased		3%	4%	2%	11%	10%		8%
Household members skills and experience improved					3%			1%
Other	4%			1%	3%			1%
Households who						2008		
Number of respondents whose income has decreased	N=5	N=4	N=4	N=12	N=5	N=3	N=1	N=9
Distribution of households by primary reason for the decrease (%)								
Price of crops/fish/meat fell	25%			8%	20%	33%	100%	33%
Business environments got worse	50%	50%	25%	42%	20%	67%	10070	33%
Job opportunities decreased	25%	50%	25%	33%	, .			
Wage rate in farm employment fell					20%			11%
Wage rate in non-farm employment fell					20%			11%
Number of working household members decreased			50%	17%				
Household members cannot fully work due to sickness					20%			11%

Table A6-6 Distribution of households by reasons for increase and decrease of income

The sample households were asked about the amount of monthly expenditure by item. As shown in Table A6-7, the sample households in Pourashavas spent BDT 16,248 monthly on average, while those in Unions spent BDT 121,510. Those living in slums spent much less, BDT 6,551. With regard to expenditure composition, foodstuffs including rice occupied the largest portion: 42% for those in Pourashavas, 46% for those in Unions, and 60% for those in slums. On overall sample average, education accounted for 11%; health care 5%; transport 7%; energy 5% approximately; and water 0%.

Items of expenditure	Pourashava				Union			
-	Old town	New town	Slum	Total	Adjacent to Pourashava		Connected to improved GC	Total
Number of observations	N=40	N=40	N=40	N=120	N=48	N=24	N=24	N=96
Average monthly expenditure (BDT)	17,647	24,546	6,551	16,248	13,424	12,860	10,331	12,510
Composition of expenditure (%)								
Rice	12%	9%	26%	12%	15%	17%	18%	16%
Foodstuffs other than rice	31%	28%	34%	30%	29%	29%	34%	30%
Clothing	6%	7%	7%	7%	6%	6%	7%	6%
Transport (Rickshaw, bus/taxi fare, fuel for vehicle)	8%	7%	4%	7%	7%	7%	7%	7%
Energy (firewood, charcoal, kerosene, electricity)	7%	4%	7%	5%	3%	5%	5%	4%
Water	0%			0%				
Housing (rent, loan), land rent	1%	0%	1%	1%	1%			1%
Education	11%	12%	6%	11%	9%	17%	7%	11%
Health, medical care, medicine	6%	5%	7%	5%	5%	6%	5%	5%
Remittance	5%	3%	3%	4%	7%	0%	4%	5%
Saving	9%	19%	2%	13%	12%	9%	5%	10%
Lending to relatives or other people	3%	6%	3%	5%	6%	2%	8%	5%
Tax	1%	1%	0%	1%	1%	0%	0%	1%

Table A6-7 Amount and composition of monthly expenditure

4 Hygienic environment, water, rubbish disposal and collection, and sewerage and drainage

(1) Hygienic environment

The respondents were asked about changes in hygienic conditions in their living areas and about their satisfaction with the current hygienic conditions. The result revealed that the proportion of respondents who answered hygienic conditions deteriorated in comparison with 2008 was not high, especially among those in Unions. The following are the proportions of respondents in Pourashavas who answered that the unhygienic factors increased: roughly 14% for "littered rubbish in open place," 14% for "bad smell from sewerage," 9% for "overflow of sewerage," 19% for "rain paddles," and 22% for "overall hygienic environment." The corresponding proportions of those in Unions were only 5%, 4%, 0%, 3%, and 4%. No significant differences were found among old towns, new towns, and slums.

By contrast, the proportion of respondents unsatisfied with the current hygienic conditions was high, although the conditions were not generally recognized to have deteriorated since 2008. The proportions in Pourashavas were: 81% on "littered rubbish in open place," 90% on "bad smell from sewerage," 98% on "overflow of sewerage," 93% on "rain paddles," and 89% on "overall hygienic environment." The commensurate proportions in Unions were 76%, 80%, 94%, 79%, and 89%, which were still high but lower than in Pourashavas. No significant differences were seen among old towns, new towns, and slums in terms of prevalence of dissatisfaction.

			(U	nit: %)	
Hygienic conditions	Pourashava			Union	
	Old	New town	Slum	-	
	town				
	N=40	N=40	N=40	N=96	
Littered rubbish in open place					
% of respondents who answered the rubbish had increased since 2008	18%	10%	15%	5%	
% of respondents unsatisfied with current conditions of the rubbish	70%	88%	85%	76%	
Bad smell from sewerage					
% of respondents who answered the smell had increased since 2008	15%	10%	18%	4%	
% of respondents unsatisfied with current conditions of the smell	80%	95%	95%	80%	
Overflow of sewerage					
% of respondents who answered the overflow had increased since 2008	8%	5%	15%		
% of respondents unsatisfied with current conditions of the overflow	93%	100%	100%	94%	
Rain paddles					
% of respondents who answered the paddles had increased since 2008	28%	15%	13%	3%	
% of respondents unsatisfied with current conditions of the paddles	90%	93%	95%	79%	
Overall hygienic environment					
% of respondents who answered hygiene environment had deteriorated since 2008	20%	23%	23%	4%	
% of respondents unsatisfied current conditions	88%	85%	93%	89%	

Table A6-8 Change of and satisfaction with hygienic conditions in respondents' living areas

(2) Drinking water

The survey asked the respondents whether it became easier or more difficult to access drinking water compared with 2008 (Table A6-9). Slightly more people answered "easier" than those who answered "more difficult." 20% and 21% of those in Pourashavas and Unions, respectively, answered "easier," while 15% and 14% answered "more difficult." The respondents were also asked whether they faced any problem with the water, and 34% of those in Pourashavas and 31% in Unions answered "yes." The decline in the ground water level is the problem cited by the largest number of respondents, followed by iron contamination of water.

Table A6-9 Change in access to and problems with drinking water

Question, answer	Pourashava	Union
	N=120	N=96
Is it easier or more difficult to get drinking water compared with 2008?		
Easier (% of respondents who answered it is easier)	20%	21%
Same (% of respondents who answered it is the same)	65%	65%
More difficult (% of respondents who answered it is more difficult)	15%	14%
Do you face any problem with drinking water?		
Yes (% of respondents whose answers were "yes")	34%	31%

Problems with drinking water

- The ground water level goes down in the dry season. (46)
- Water contains iron. (17)
- Water is brought from someone else's tubewell because there is no tubewell in the house. (2)
- Water contains a little arsenic. (1)
- Iron in water increased. (1)
- Water supply is not available. (1)
- The amount of drinking water supplied is inadequate. (1)
- A tubewell is a bit far from my house. (1)
- More tubewells are necessary. (1)

(3) Public toilet

16 respondents in Pourashavas, i.e., 13%, and only five in Unions, or 5%, said public toilets were available in their living areas (Table A6-10). Among the 16 respondents in Pourashavas, 63% perceived the toilets as unsatisfactory; 94% answered the number of them should be increased; 94% answered they should be cleaned; and 44% said they should be repaired. These results indicate that needs for improving them, especially constructing and cleaning them, were high. In addition, of those saying public toilets were unavailable, 92% in both Pourashavas and Unions answered they needed to be constructed, which demonstrates that the needs for provision of new public toilets were high.

Questions, answer	Pourashava	Union
Are there public toilets in your living area?	N=120	N=96
Yes (% of those who answered "yes")	13%	5%
No (% of those who answered "no")	87%	95%
For those who answered, "yes, there are public toilets."	N=16	N=5
Are the toilets satisfactory?		
No, not satisfactory. (% of those who answered "no.")	63%	60%
Do the toilets require the following type of improvement? (% of those who answered		
"yes.")		
Number of the toilets should be increased.	94%	60%
The toilets should be cleaned.	94%	80%
The toilets should be repaired.	44%	60%
For those who answered, "no, there is no public toilet."	N=104	N=92
Do public toilets need to be constructed?		
Yes (% of respondents whose answers were "yes")	92%	92%
Suggestion for improvement of public toilets		
• More toilets are needed. (5)		
• Toilets should be repaired. (2)		
• Regular cleaning is necessary. (1)		
• Regular cleaning is necessary. (1)		

Table A6-10 Availability,	satisfaction r	equired im	nrovement and	d necessity of	nublic toilet
Table Au-10 Availability,	satisfaction, I	equileu mi	provement, and	u necessity of	public tonet

• A separated septic tank is necessary. (1)

Toilets should be leased out by tender. (1) Public toilets are necessary in slums. (1)

(4) Rubbish disposal and collection

•

19 respondents in Pourashavas, or 16%, and only one in Unions answered public rubbish bins were available in their living areas (Table A6-11). Of the 19 respondents in Pourashavas, 58% deemed them unsatisfactory; 84% answered the number of them should be increased; 95% answered rubbish in them should be collected and cleaned; 63% answered they should be repaired. Among those saying public rubbish bins were unavailable, 98% in Pourashavas answered they needed to be installed, and so did 65% in Unions. These results suggest the following: 1) room for improvement of existing rubbish bins is large; 2) in particular, collection and cleaning of rubbish in public bins should be improved; and 3) installment of new rubbish bins is needed.

Questions, answer	Pourashava	Union
Are there public rubbish bins in your living area?	N=120	N=96
Yes (% of those who answered "yes")	16%	1%
No (% of those who answered "no")	84%	99%
For those who answered, "yes, there are the bins."	N=19	N=1
Are the bins satisfactory?		
No, not satisfactory. (% of those who answered "no.")	58%	
Do the bins require the following improvement? (% of those who answered "yes.")		
Number of the bins should be increased.	84%	100%
Rubbish in the bins should be collected and cleaned.	95%	100%
The bins should be repaired.	63%	
For those who answered, "no, there is no public bin."	N=101	N=95
Do public bins need to be installed?		
Yes (% of respondents whose answers were "yes")	98%	65%

Table A6-11 Availability, satisfaction, required improvement, and necessity of public rubbish bins

Suggestion for improvement of public rubbish bins

- More rubbish bins are needed. (2)
- The number of bins should be increased by having bins small. (2)
- Regular cleaning is necessary. (2)
- Regular collection of rubbish is necessary. (1)
- Rubbish should be collected every morning. (1)
- Rubbish in bins should be immediately collected. (1)
- Maintenance of public rubbish bins is necessary. (1)
- Bins must be placed away from houses. (1)
- Facilities for recycling should be used. (1)
- More vehicles for collecting rubbish are necessary. (1)
- Rubbish bins should be modernized. (1)

Answers to questions about rubbish disposal are summarized in Table A6-12. As a way to dispose household rubbish, "scatter outside house" and "bury" were dominant. The former was adopted by 51% and 31% of the sample households in Pourashavas and Unions, respectively, while the latter was by 28% and 69%. The other ways such as "being collected by public service," "throw into public bin," and "burn," were taken by 4%, 13%, and 3% in Pourashavas, respectively, while neither of them were taken by any of those in Unions.

60% of the 120 respondents in Pourashavas faced problems with rubbish disposals, whereas a relatively small portion, 22%, of those in Unions did so. The most frequent problem was "bad smell from rubbish," which was raised by 59 respondents. Interestingly, the second frequent problem raised by 11 respondents was "rubbish thrown in others' lands creates a problem in social relationships," which is not a hygienic or environmental issue, but a social relationship one. Other frequent problems were "dirty environment" raised by five respondents, "increased mosquitoes" by four, and "disease" by three.

Among those who said that no household rubbish collection service was provided, 81% in Pourashava needed such service, although a comparatively small proportion, 35%, in Unions needed it.

The abovementioned results reveal that there are substantial space and needs for improvement of rubbish disposal and collection, especially in Pourashavas.

Questions, answer	Pourashava	Union
How do you dispose rubbish?	N=120	N=96
Scatter outside house	51%	31%
Bury	28% 3%	69%
Burn Throw into public bin	3% 13%	
Being collected by public service	4%	
Do you face any problem regarding rubbish disposal?	N=120	N=96
Yes (% of those who answered "yes")	60%	22%
No (% of those who answered "no")	40%	78%
Is household rubbish collection service provided in your living area?	N=120	N=96
Yes (% of those who answered "yes")	9%	5%
No (% of those who answered "no")	91%	95%
For those who answered, "no, the collection service is not provided." Does the collection service need to be provided?	N=109	N=92
Yes (% of those who answered "yes")	81%	35%
No (% of those who answered "no")	19%	65%
 Rubbish thrown in others' lands creates a problem in soci Dirty environment (5) 	iai relationships. (11)	
• Increased mosquitoes (4)		
• Disease (3) Bubbish shatmata sur management (2)		
 Rubbish obstructs our movement. (3) In the rainy season, it is difficult to go outside. (2) 		
 Rubbish is thrown to places of others. (2) 		
 There is no place for a rubbish bin. (2) 		
 Rubbish is not cleaned regularly so creates bad smell. (2) 		
 Rubbish is not collected regularly so creates bad smell. (2) Rubbish is not collected regularly. (2) 	,	
 Traffic jam (2) 		
 Not enough space to bury waste. (1) 		
• Air pollution (1)		
• Blocked drains cause waterlogging. (1)		
 Blocked drains cause waterlogging. (1) Rubbish bins are 3 km away. (1) 		

Table A6-12 Ways of and problems with rubbish disposal, and availability and necessity of household rubbish collection

- Infrequent garbage collection (1)
- Pit holes need to be cleaned. (1)
- Road side becomes dirty (1)
- Rubbish collection is late. (1) •
- Bad smell arises from rubbish bins sometimes. (1)
- There is no place to dump rubbish. (1) .

(5) Sewerage and drainage

41 respondents in Pourashavas, or 34%, said there was sewerage or drainage in their living area, while only five respondents in Unions gave the same answer. Among the 41 in Pourashavas, 76% were not satisfied with the current situation of sewerage or drainage; 93% answered it should be cleaned; 90% answered it should be made wider or deeper; 83% answered new sewerage or drainage should be constructed. Besides, as a suggestion for improving sewerage and drainage, six respondents answered

drains needed to be covered. These results indicate the following in Pourashavas: 1) the existing sewerage and drainage need improvement such as cleaning, widening, deepening, and covering; and 2) new sewerage and drainage are needed along with the existing ones.

Table AC 12 Satisfaction and i	many and recording	correspond and drainage
Table A6-13 Satisfaction and in	inprovement regarding	sewerage and dramage

Questions, answers	Pourashava	Union
Is any sewerage or drainage in your living area?	N=120	N=96
Yes (% of those who answered "yes")	34%	5%
No (% of those who answered "no")	66%	95%
For those who answered, "yes, sewerage or drainage is in my living area."	N=41	N=5
Are you satisfied with current situation of sewerage or drainage?		
Yes, satisfied. (% of those who answered "yes")	24%	60%
No, not satisfied. (% of those who answered "no")	76%	40%
Do the sewerage/ drainage require the following improvement? (% of those who answered "yes.")		
It should be cleaned.	93%	40%
It should be made wider or deeper.	90%	100%
New sewerage or drainage should be constructed.	83%	100%

Suggestion for improvement of sewerage and drainage

- Drains need to be covered. (6)
- More drains need to be constructed. (4)
- More drains with top covers need to be constructed. (3)
- Size of drains should be increased. (2)
- Widening of drains is necessary. (2)
- Drains are small and have no connection to outfalls. (1)
- Drains flowing not to river should be constructed. (1)
- Drains along internal roads in slums are necessary. (1)
- Drains have never been cleaned. (1)
- A drain is installed on only one side of road. The other side also needs a drain. (1)
- Drains are few and narrow. (1)
- Deeper drains should be constructed. (1)
- There is no public land to widen drains. (1)
- Drains should be made of RCC. (1)

5 Traffic and transportation

(1) Traffic conditions

Traffic jam had increased according to 69% of the respondents in Pourashavas, 44% in the Unions adjacent to Pourashavas, 33% in the Unions along improved roads, and 50% in the Unions connected to improved Growth Centers. Almost nobody said it had decreased, although 30% of those in Pourashavas and about half of those in Unions said it was unchanged. With regard to traffic safety, more than 40% of all the respondents acknowledged safety had deteriorated. More respondents in Pourashavas than in Unions perceived the deterioration. The results indicate that traffic conditions have been worsening, particularly in Pourashavas.

Question, answer	Pourashava		Union			
		Adjacent to	Along	Connected to		
		Pourashava	improved	improved		
			road	GC		
	N=120	N=48	N=24	N=24		
Traffic jam: Has traffic jam in your living area changed since 2008?						
Increase	69%	44%	33%	50%		
Same	29%	56%	67%	50%		
Decrease	2%					
Traffic safety: Has traffic safety in your living area changed since 2008?						
Improved	18%	19%		8%		
Same	35%	48%	58%	46%		
Deteriorated	47%	33%	42%	46%		

Table A6-14 Change of traffic conditions

(2) Public transportation

The respondents were asked how often they used public transportation (Table A6-15). Rickshaw was found to be the most common means of transportation, as 66% of the respondents used rickshaw every day or at least a few times a week. Rickshaw van, which is similar to rickshaw and driven by a person and to which a loading rear platform is attached, and auto rickshaw were also popular, as more than 60% used them at least a few times a month. Long-distance bus was seldom used, and taxi was used by very few respondents with limited frequency.

Question, answer	Every day	A few times	A few times	A few times	Do not use
		a week	a month	a year	
How often do you use the following public trans	sportation? (N=216	, unit: %)			
Rickshaw	18%	48%	28%	1%	5%
Rickshaw van	9%	25%	41%	10%	15%
Auto rickshaw (CNG, Tempo, etc.)	2%	24%	38%	3%	33%
Taxi		1%	6%	6%	87%
Local bus		6%	46%	41%	7%
Long-distance bus			10%	71%	19%

Table A6-15 Frequency of using public transportation

The answers to the question, "Are you satisfied with public transportation?" are summarized in Table A6-16. Roughly half the respondents in both Pourashavas and Unions expressed satisfaction, while the other half expressed dissatisfaction. As reasons for the dissatisfaction, many respondents cited high fare, poor vehicle conditions, poor road conditions, unavailability of bus, too fast driving, and insufficient public transportation, among others.

Question, answer	Pourashava	Union
	N=120	N=96
Are you satisfied with public transportation?		
Satisfied (% of those who answered "yes")	43%	48%
Not satisfied (% of those who answered "no")	57%	52%

Reasons	for	dissatis	faction	with	public	transportation
recuberto	Jui	cubberres	0000000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	priorie	" ansportation

- Fare is high (30)
- Poor vehicle conditions (26)
- Poor road conditions (21)
- Need to start bus service, no bus service (13)
- Rushing too fast (11)
- Public transportation is not sufficient (9)
- Too many stops on the ways (8)
- Low quality service in transport (6)
- Frequency of bus is too low. (5)
- Not comfortable (5)
- Poor bus service (5)
- Bus stand is located far (4)
- Infrequent service (4)
- Public transportation is not available (3)
- Takes long time (3)
- Increasing rood accidents (2)
- No parking place (2)
- Not timely departure (2)
- Seat are not sufficient (2)
- Transport workers behave impolitely (2)
- Unskilled driver (2)
- Vehicles are too old (2)
- Infrequent bus (1)
- Limitation of vehicles due to narrow road (1)
- Local bus is very old (1)
- No bus service after evening (1)
- No road linkage. Only accessible by boat (1)
- Overloaded with passengers (1)
- Poor service to passengers (1)
- Require ticket counter (1)

(3) Transportation infrastructure

Among the 39 respondents in Pourashavas who answered there were bus terminals in their living areas, 59% thought that improvement of the bus terminals were required, while 49% did not. All the improvements suggested by them were related to infrastructure and facilities. Eight respondents suggested "passenger shed need to be constructed"; five, "toilets are needed"; three, "infrastructure development be needed"; two, "drains be needed"; and so forth.

Table A6-17 Required improvement of bus terminals

Question, answer	Pourashava	Union
Is there bus terminal in your living area?	N=120	N=96
Yes (% of those who answered "yes")	33%	
No (% of those who answered "no")	67%	100%
For those who answered, "Yes, there is bus terminal."	N=39	N=0
Does the bus terminal require improvement?		
Yes (% of those who answered "yes")	59%	-
No (% of those who answered "yes")	41%	-

Suggestions for improvement of bus terminals

- Passenger shed needs to be constructed. (8)
- Toilets are needed. (5)
- Infrastructure development is needed. (3)
- Drains are needed.(2)
- Ticket counter is needed. (2)
- The terminal should be bigger. (2)
- Infrastructure facilities need to be improved. (1)
- Toilet needs improvement.
- Water supply for toilet is needed. (1)
- Terminal needs repairing. (1)
- Repair is needed. (1)
- Bus stand needs to be located outside town. (1)
- Approach road should be widened. (1)
- Approach road needs to be constructed. (1)
- Bus terminal is located outside town and inconvenient. (1)

Among the 80 respondents in Pourashavas who answered there were street lights in their living areas, 45% were satisfied with them, but 55% were dissatisfied. Most of the dissatisfaction stemmed from maintenance of the streetlights, particularly the bulbs. As reasons for the dissatisfaction, "few streetlights function" were cited by 20 respondents; "many bulbs are broken and do not light streets" by eight; "there is no bulb" by four; "there are very few lights because many bulbs are broken" by two; and "broken bulbs are not replaced" by two. These results indicate necessity to improve the maintenance.

Table A6-18 Satisfaction with street lights

Question, answer	Pourashava	Union
Are there street lights in your living area?	N=120	N=96
Yes (% of those who answered "yes")	67%	
No (% of those who answered "no")	33%	100%
For those who answered, "Yes, there are street lights."	N=80	N=0
Are you satisfied with the street lights?		
Satisfied (% of those who answered "yes")	45%	-
Not satisfied (% of those who answered "yes")	55%	-

Reasons for not satisfied with street lights

- Few streetlights function. (20)
- Many bulbs are broken and do not light streets. (11)
- Streetlights are not enough. (9)
- There is no bulb. (4)
- There are very few lights because many bulbs are broken. (2)
- Broken bulbs are not replaced. (2)
- Few streetlights function. As a result, thefts increase. (1)
- Electricity is not available. (1)
- It takes a long time to replace bulbs. (1)

6 Access to public facilities

Questions about access to public facilities such as schools, clinic, bank, etc. were asked to only the respondents who or whose household members used the facilities.

Regarding distance to the facilities, it was found that primary and secondary schools were located near their residences and that the average distances did not vary between in Pourashavas and Unions. However, the distances to health clinics, banks, and Upazila Complex differed significantly between in Pourashavas and Unions. Health clinics were 1.1 km away in Pourashavas, but 2.6 km away in Unions; banks were 1.0 km away in Pourashavas, but 5.6 km away in Unions; Upazila Complexes were 1.3 km away in Pourashavas, but 7.6 km away in Unions. These differences may stem from comparatively high concentration of the facilities in Pourashavas.

As a transportation mode to the facilities, walk was the most common. More than half the respondents walked to the facilities except when they went to banks and Upazila Complexes that were more than 5 km away. Rickshaw and rickshaw van were also frequently used except for travel to schools and Union Complexes. It was suggested that people in Pourashavas tend to use rickshaws or rickshaw vans more frequently than those in Unions, as a relatively high percentage of the respondents in Pourashavas compared to those in Unions took them to near facilities such as secondary schools and health clinics. When those in Unions travelled to distant facilities such as banks that are 5.6 km away and Upazila Complexes that are 7.6 km away, more than half of them relied on rickshaws or rickshaw vans, while about 20% used motor vehicles such as bus.

Items	Primary	school	Secon	Idary	Health	clinic	Ba	nk	Union c	complex	Upa	zila
			sche	ool							Com	plex
	Poura-	Union	Poura-	Union	Poura-	Union	Poura-	Union	Poura-	Union	Poura-	Union
	shava		shava		shava		shava		shava		shava	
	N=84	N=64	N=68	N=39	N=110	N=92	N=85	N=68	N=0	N=96	N=109	N=86
Average distance	0.5 km	0.7 km	1.3 km	1.4 km	1.1 km	2.6 km	1.0 km	5.6 km	-	1.5 km	1.3 km	7.6 km
Time	10 min	14 min	17 min	21 min	16 min	23 min	13 min	37 min	-	18 min	19 min	45 min
Transportation mode												
Walk	89%	95%	69%	79%	51%	48%	51%	12%	-	60%	46%	3%
Bicycle			3%	8%	1%	8%	2%	13%	-	10%	1%	8%
Rickshaw	8%		19%	5%	38%	22%	38%	35%	-	16%	43%	44%
Rickshaw van	1%	3%	6%	5%	9%	16%	5%	20%	-	7%	7%	20%
Auto rickshaw/ CNG					1%		1%		-		1%	2%
Motorbike	1%	2%		3%		1%	1%	12%	-	3%	1%	7%
Bus			1%			5%		9%	-	3%		14%
Other			1%				2%		-	0%	1%	1%

Table A6-19 Access to public facilities

7 Access to market

Table A6-20 summarized the answers about transportation mode and time to markets where the respondents purchased foods and goods. It turned out walk was the major transportation mode to the markets. About 90% of the respondents walked if markets were within 0.5 km; about 50% if they were 0.5 km to 2 km away; still about 10% even if they were more than 2 km away. As the distance was longer, they were more likely to use rickshaw or rickshaw van, but few used motor vehicles. It indicates that the transportation modes were not changed between in the dry and rainy seasons, but time to the markets was longer in the rainy season.

Distance from market (km)		Mode of transportation					Time (minutes)
	Walk	Bicycle	Rickshaw	Rickshaw	Auto rickshaw/	Motorbike	
		-		van	CNG		
$0 \text{ km} \le \text{distance} \le 0.5 \text{ km} (N=102)$							
Dry season	89%	2%	5%	3%		1%	8 min
Rainy season	88%	1%	6%	4%		1%	10 min
$0.5 \text{ km} < \text{distance} \le 1 \text{ km} (N=54)$							
Dry season	57%	7%	24%	9%		2%	16 min
Rainy season	57%	6%	28%	7%		2%	20 min
$1 \text{ km} < \text{distance} \le 2 \text{ km} (N=39)$							
Dry season	46%	23%	13%	13%	3%	3%	18 min
Rainy season	51%	18%	13%	13%	3%	3%	24 min
2 km < distance (N=21)							
Dry season	10%	14%	19%	52%	5%	0%	40 min
Rainy season	14%	10%	19%	52%	5%	0%	47 min

Table A6-20 Transportation mode and time to market for buying foods and goods

According to Table A6-21, obviously, the nearer the markets were, the more often they visited markets. For example, in the dry season, 75% of the respondents residing within 0.5 km distance from the nearest markets visited markets every day, whereas only 29% of those more than 2 km away visited them every day. With regard to differences between the dry and rainy seasons, less frequency in the rainy season was observed.

Distance from market (km)	Everyday	A few times a week	A few times a month	Less than a few times a month
$0 \text{ km} \le \text{distance} \le 0.5 \text{ km} (\text{N}=102)$				
Dry season	75%	25%		
Rainy season	66%	34%		
$0.5 \text{ km} < \text{distance} \le 1 \text{ km} (N=54)$				
Dry season	61%	39%		
Rainy season	44%	54%	2%	
$1 \text{ km} < \text{distance} \le 2 \text{ km} (N=39)$				
Dry season	41%	59%		
Rainy season	31%	69%		
2 km < distance (N=21)				
Dry season	29%	67%		
Rainy season	24%	71%	5%	

Table A6-21 Frequency of visit to market for buying foods and goods

The survey asked two questions: whether access to the markets was better or worse compared with 2008 and whether frequency of visit to the markets had increased or decreased compared with in 2008. The result (Table A6-22) proved a positive correlation between the access improvement and change in the frequency. In other words, those with better access were more likely to have increased the frequency to visit the markets, while those with worse one were less likely to have increased it, but more likely to have decreased it. For example, among 142 respondents with better access, 87% had higher frequency and only 1% had lower one, whereas among 10 respondents with worse access, only 20% had higher one, but 40% had lower one. This result indicates that access influences utilization of markets.

Type of respondents	Has the frequency of visit to market increased or decreased compared with 2008?				
	Increased	Same	Decreased		
Those who answered access to the market is better than in 2008 (N=142)	87%	12%	1%		
Those who answered access to the market is the same as in 2008 $(N=64)$	31%	69%			
Those who answered access to the market is worse than in 2008 (N=10)	20%	40%	40%		

Table A6-22 Change in frequency of visit to market

8 Agricultural crops: place to sell, transportation mode, and impact of improved access

The respondents whose households operated agriculture were asked where to sell agricultural crops (Table A6-23). Among those in Unions, the majority sold crops at farm gates and house gates. In comparison among the three types of Unions, a relatively large proportion, 67%, of the sample households in the Unions connected to improved Growth Centers sold crops at Growth Centers. In the Unions adjacent to Pourashavas, a relatively high percentage, 36%, of the households sold them in Pourashavas.

Question/ answer	Р	ourashav	va 🛛		Union	
	Old	New	Slum	Adjacent to	Along	Connected to
	town	town		Pourashava	improved	d improved GC
					road	-
Does any household member operate agricultural land owned by or leased in by household members?	N=40	N=40	N=40	N=48	N=24	N=24
Yes (% of those who answered "yes")	40%	36%	5%	75%	75%	75%
No (% of those who answered "no")	60%	64%	95%	25%	25%	25%
For those who answered "yes, we operate agricultural land." Do you sell crops at the following? (% of those who answered "yes.")	N=16	N=19	N=2	N=36	N=18	N=18
Growth Center/ Rural Market	6%	21%		36%	11%	67%
Pourashava	63%	58%	100%	36%	17%	
Farm gate/ house gate	25%	32%		61%	89%	50%
Local shop		5%		3%	6%	

Table A6-23 Place to sell agricultural crops

With regard to the sample households selling crops at Growth Centers/Rural Markets and in Pourashavas, transportation modes to bring crops and distance from farms are summarized in Table A6-24. Rickshaw van was the major transportation mode for bringing crops to both Growth Centers/Rural Markets and Pourashavas. Those who have to bring crops to faraway places tend to use motor vehicles, as those taking mini tracks to bring crops to Pourashavas were 9.5 km away.

Place to sell crops	Transportation mode to bring crops					
-	Walk	Bicycle	Rickshaw	Rickshaw	Mini truck	Others
		-		van		
	For thos	se who sell	crops at Gr	owth Center	Rural Market	t (N=32)
Growth Center/Rural Market			-			
Distribution of households by transportation mode (%)		9%	6%	78%		6%
Mean distance from farms to Growth Center	-	2.3 km	2.6 km	1.8 km	-	7.5 km
		For those	who sell cro	ops in Pouras	shava (N=39)	
Pourashava				1	× /	
Distribution households by transportation mode (%)	3%		8%	85%	5%	
Mean distance from farms to Pourashavas	0.3 km	-	1.5 km	2.6 km	9.5 km	-

Table A6-24 Transportation mode to bring crops to Growth Center/ Rural Market and Pourashavas

Those selling crops at Growth Center/Rural Market and Pourashavas were asked whether the access to the place to sell became better than in 2008. Then, those answering it became better were asked about benefit from the better access (Table A6-25). Among the 28 respondents answering the access to Growth Center/ Rural Market was better than in 2008, 96% acknowledged "more buyers/customers" as the benefit; 79% "more sales" and "better selling price;" 68% "short transportation time;" 36% "low transportation cost." Among the 23 respondents answering the access to Pourashavas became better, 100% acknowledged "more buyers/customers" and "more sales;" 96% "better selling price;" 70% "short transportation time;" 17% "low transportation cost." This result highlights the positive impact and importance of improved access on trading crops.

Table A6-25 Benefit from better access to place for selling crops

Place to sell crops			Ber	nefit		
		Low	Short	Better	More	More
		transportation	transportation	selling	sales	buyers/
		cost	time	price		customers
			g crops at Growt			
	who and	swered access to	there has becau	ne better	than in 20	008 (N=28)
Growth Center/Rural Market % of respondents who benefitted from better access		36%	68%	79%	79%	96%
	who and		se selling crops there has becar			008 (N=23)
Pourashava						
% of respondents who benefitted from better access		17%	70%	96%	100%	100%

9 Impacts of rural infrastructure investment: road and market improvement

(1) Impacts of road improvement

All the 96 respondents in Unions were asked whether there was any road crossing or nearby their Union that was improved either in or after 2008. 23 in the Unions adjacent to Pourashavas, 22 in the Unions along improved roads, and 6 in the Unions connected Growth Center answered yes. Then, they were asked about impacts of the improved road.

Direct impacts such as better access and short transportation time were confirmed, as "better access to market," "better access to school," and "better access to hospital/health center/ clinic" were recognized by almost all of those in both the Unions adjacent to Pourashavas and the Unions along improved

roads.¹ Moreover, "decrease of transportation time" was also acknowledged by almost all, although "decrease of transportation cost" was by less than half.

Indirect impacts such as better job opportunity, preferable trade environment, and change in prices, all of which take a fairly long time to arise, were also confirmed. More than half of those living in the Unions near Pourashavas and the Unions along improved roads saw "better business environment," "more income," "more buyers of crops," "higher price of crop to sell," "more buyers of crops," and "higher land price/ land rent." However, "Better job opportunity" and "lower price of food to buy" were observed by not more than half of them.

Migration, which may be regarded as something of a side-effect impact, was observed but not significantly. About one third of the respondents perceived more in- and out-migration.

There were no significant differences in the recognition of the impacts between the Unions adjacent to Pourashavas and those along improved roads. The percentages of respondents who recognized the impacts were similar in the two types of Union.

Impacts		Union	
•	Adjacent to	Along improved	Connected to
	Pourashava	roads	improved GC
Has the improvement of road caused the following?	N=23	N=22	N=6
(% of those who answered "yes")			
Better access to market	100%	100%	100%
Better access to school	100%	95%	83%
Better access to hospital/health center/clinic	100%	100%	67%
Decrease of transportation cost	57%	50%	17%
Decrease of transportation time	96%	86%	100%
Better job opportunity	39%	45%	83%
Better business environment	78%	91%	100%
More income	61%	82%	67%
Higher price of crop to sell	78%	77%	67%
More buyers of crops	78%	100%	100%
Lower price of food to buy	35%	50%	67%
Higher land price/ land rent	65%	73%	67%
More in-migration to this area	17%	27%	67%
More out-migration from this area	26%	41%	67%

Table A6-26 Impacts of road improvement

(2) Impacts of market improvement

Similarly to the impacts of road improvement, the respondents were asked about impacts of market improvement. Firstly, 96 respondents in Unions were asked whether there were Growth Centers in or near their Unions that were constructed or improved after 2008. Then, only those who answered yes were asked about the impacts. In the following, only the answers of the 24 respondents in the Unions connected to Growth Centers were analyzed. Seven respondents in total in the other two types of Unions answered that near Growth Centers were improved after 2008.

Most of the 24 respondents confirmed "easier to sell agricultural crops" (75%), "better business environment" (88%), and "more income" (63%). Half of them recognized "easier to sell products of one's business" and "lower prices of foodstuffs to buy." A smaller number felt "better job opportunity" (38%) and "lower prices of foodstuffs to buy" (38%).

¹ Since only six respondents in the Unions connected to GC were asked about the impacts, their answers are analyzed in percentage terms and not referred to here.

The impacts were found not to significantly change depending on distance from improved Growth Centers. All the impacts except "better business environment" were observed by approximately the same proportion of those living within 2 km from improved Growth Centers and those more than 2 km away.

Impacts	Distance from improved GC				
	Within 2km	More than 2km	Total		
Has the construction or improvement of GC caused the following?	N=13	N=11	N=24		
(% of those who answered "yes")					
Easier to sell agricultural crops	77%	73%	75%		
Easier to sell products of one's business	54%	45%	50%		
Better job opportunity	62%	9%	38%		
Better business environment	92%	82%	88%		
More income	69%	55%	63%		
Higher price of crop to sell	54%	45%	50%		
Lower prices of foodstuffs to buy	46%	27%	38%		

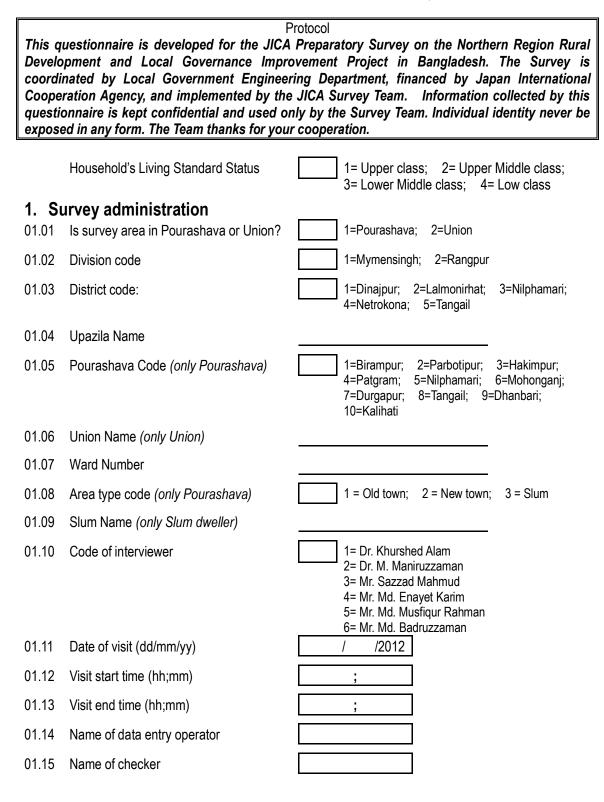
Table A6-27 Impacts of Growth Center improvement

[Attachment to Annex 6]

Attachment: Questionnaire for socio economic survey

JICA Preparatory Survey on the Northern Region Rural Development and Local Governance Improvement Project in Bangladesh

Questionnaire for socioeconomic survey



[Attachment to Annex 6]

2. B 02.01	Asic information Household ID <= Interviewer ID Month (mm) Date (dd) Number
02.02	Respondent's name
02.03	Cellular phone number of respondent, if any
02.04	Gender of respondent 1=Male; 2=Female
02.05	Age of respondents years
02.06	Relation to the household head 1=Head; 2=Spouse; 3=Parent; 4=Child; 5=Grandchild; 6=Brother/Sister; 7=Others (specify)
02.07	Name of the household head
02.08	Age of the household head years
02.09	Gender of the household head 1=Male; 2=Female
02.10	Religion of the household head 1=Muslim; 2=Hindu; 3=Christian; 4=Buddism; 5=Other(specify)
02.11 02.12 02.13 02.14	Number of Household members including household head0 to 5persons6 to 14persons15 to 59persons60+persons
02.15	What is the name of the Pourashava that you visit most often? (Only Union)
02.16	How far is the nearest Pourashava? (Only Union) km
3. A 03.01	sset and Owned facilities [Note for surveyors] Before asking 03.02, observe and note the following: House structure 1= Hut; 2=Katcha; 3=Cl Sheet; 4=Semi-puca; 5=Puca; 6=Other(specify)
03.02	I would like to ask questions about house and household amenities. Tenancy of your dwelling 3= Authorized dweller without paying; 4= Unauthorized dweller
03.03	How many rooms do your household members occupy, including rooms bedrooms, living rooms, and rooms used for household enterprises? (Note: Do not count bathrooms, kitchens, balconies, and corridors.)
03.04 03.05	Source of drinking water In dry season 1=Tap; 2=Tubewell; 3=Deep tubewell; In rainy season 4=Pond/Tank; 5=River; 6=Others (specify)
03.06	Does your household treat or purify your drinking 1=Yes; 2=No water in any way?

	Annexes of Final Report
	[Attachment to Annex 6]
03.07	Is it easier or more difficult to get drinking water 1=Easier; 2=Same; 3=More difficult; compared with in 2008?
03.08	Do you face any problem with drinking water? 1=Yes; 2=No (go to 03.10)
03.09	If yes, please specify the problems.
03.10	Latrine facilities of your dwelling 1=Sanitary; 2=Others; 3=None
03.11	Electricity connection of your dwelling 1=Exist; 2=Not exist
03.12.01 03.12.02 03.12.03 03.12.04 03.12.05 03.12.06	How many of vehicles of the following types does your household possess? Bicycle
03.13	Does your household have cellular phones? 1=Yes; 2=No
03.14	Does your household have televisions? 1=Yes; 2=No
03.15	Do your household members own non-agricultural land? 1=Yes; 2=No (if No, go to 03.17)
03.16	How many decimal of the non-agricultural land in total?
03.17	Do your household members own agricultural land? 1=Yes; 2=No (go to 03.19)
03.18	How many decimal of the agricultural land in total?
03.19	Do your household members lease in agricultural land? 1=Yes; 2=No (go to 03.21)
03.20	How many decimal of the leased in agricultural land indecimal total?
03.21	What is the total size of agricultural land under operation?decimal
	[Conversion rate] 100decimal = 1acre; 1decimal = 0.01acre 1acre = 0.405hectare; 2.47acre = 1hectare

[Attachment to Annex 6]

4. Hygiene and environment We would like to ask questions about hygiene and environment in your living area. [Note: Living area means Living area means area within 2-3 km away from your house.]

	Have the following changed in your current livi Are the current conditions satisfactory or not s		
		Have the following changed in your current living area since 2008?	Are the current conditions satisfactory or not satisfactory?
			1=Satisfactory; 2=Not satisfactory
04.01	Littered rubbish in open/public place [Code for change]: 1=Increase; 2=Same; 3=Decrease	04.01.01	04.01.02
04.02	Bad smell from sewerage [Code for change]: 1=Increase; 2=Same; 3=Decrease	04.02.01	04.02.02
04.03	Overflow of sewerage	04.03.01	04.03.02
04.04	[Code for change]: 1=Increase; 2=Same; 3=Decrease Rain paddles [Code for change]: 1=Increase; 2=Same; 3=Decrease	04.04.01	04.04.02
04.05	Hygiene environment as a whole [Code for change]: 1=Dirty; 2=Same; 3=Clean	04.05.01	04.05.02
04.06	Are there public toilets in your living area?	1= Yes;	2= No (go to 04.10)
04.07	Are the public toilets satisfactory?	1= Yes;	2= No
04.08.01 04.08.02 04.08.03	Do the public toilets require the following impre- Number of toilets should be incre The toilets should be cleaned. The toilets should be repaired.		
04.09	Please give other suggestions for improvement of the toilets, if any.		
04.10	(If there is no public toilets in your living town,) toilets need to be constructed?	Do public 1= 1	/es; 2= No
04.11	Are there rubbish bins for public?	1= Yes;	2= No (go to 04.15)
04.12	Are the public rubbish bins satisfactory?	1= Yes;	2= No
04.13.01 04.13.02 04.13.03	Do the public rubbish bins require the following Number of bins should be increa Rubbish in bins should be collec The bins should be repaired.	ased.	1= Yes 2= No
04.14	Please give other suggestions for improvement of the public rubbish bins, if any.		
04.15	(If there is no public rubbish bins in your living rubbish bins need to be installed?	area,) Do public	1= Yes; 2= No

Preparato	ry Survey on the Northern Region Rural Development and Local Governance Improvement Project in Bangladesh
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04.16	How do you dispose rubbish? [Attachment to Annex 6] How do you dispose rubbish? 1= Collected by public service; 2= Scatter outside house; 3= Burn 4= Bury 5= Throw into Public Rubbish Bin 6= Other (specify) 1
04.17	Do you face any problem regarding rubbish disposal? 1= Yes; 2= No (go to 04.19)
04.18	If yes, please specify problems.
04.19	Is service of household's rubbish collection provided in your living 1= Yes (go to 04.21); area? 2= No
04.20	Does service of household rubbish collection need to be provided? 1= Yes; 2= No
04.21	Is there any sewerage or drainage in your living place? 1=Yes; 2=No (go to 05.01)
04.22	Are you satisfied with current situation of sewerage or drainage? 1= Yes; 2= No
04.23.01 04.23.02 04.23.03	Does the sewerage or drainage require the following improvements? It should be cleaned. 1= Yes It should be made wider or deeper. 2= No New sewerage or drainage should be constructed. 1= Yes
04.24	Please give other suggestions for improvement of sewerage or drainage, if any.

Pre	eparatory Su	rvey on the Northern Region Rural Development and Local Governance I	mprovement Project in Bangladesh
		Annexes of Final Report	
			[Attachment to Annex 6]
5.	Income		
	W	hat are the major income sources of your household? Select three	choices at maximum.
05.0	01.01	1=Farming in farm owned/rented by household members ;	1st
05.0	01.02	2=Fishery on household members' account ;	2nd
05.0	01.03	3=Livestock on household members' account ; 4=Non-farm self-employed activities & business;	3rd
		5=Non-daily-paid salary from farm employment;	
		6=Daily-paid salary from farm employment;	
		7=Non-daily-paid salary from non-farm employment;	
		8=Daily-paid salary from non-farm employment;	
		9=Remittance;	
		10=Other (specify)	
		11=Other (specify)	
		12=Other (specify)	

What were major income sources in 2008? Select three choices at maximum.

05.02.01 05.02.02

05.02.02

How much was the annual income from the following sources in the last 12 months? Are the amount higher or lower compared with in 2008?

		Annual income in the last 12 months	In comparison with in 2008, did income of the last 12 months from the following sources increase or decrease? 1= Increase; 2= Same; 3= Decrease
05.03	Farming in farm owned/rented by household members	^{05.03.01} BDT	05.03.02
05.04	Fishery on household members' account	^{05.04.01} BDT	05.04.02
05.05	Livestock on household members' account	^{05.05.01} BDT	05.05.02
05.06	Non-farm business	^{05.06.01} BDT	05.06.02
05.07	Non-daily-paid salary from farm employment	^{05.07.01} BDT	05.07.02
05.08	Daily-paid salary from farm employment	^{05.08.01} BDT	05.08.02
05.09	Non-daily-paid salary from non-farm employment	05.09.01 BDT	05.09.02
05.10	Daily-paid salary from non-farm employment	^{05.10.01} BDT	05.10.02
05.11	Remittance	^{05.11.01} BDT	05.11.02
05.12	Other (specify)	^{05.12.01} BDT	05.12.02
05.13	Other (specify)	^{05.13.01} BDT	05.13.02
05.14	Total	^{05.14.01} BDT	05.14.02

In comparison with in 2008, did total income of the last 12 months increase or decrease?

05.15

1= Increase (go to 05.16); 2= Same (go to 06.01) 3= Decrease (go to 05.17)

[Attachment to Annex 6]

What are reasons for the increase of the Total income in comparison with in 2008? Select three choices at maximum.

05.16.01 1=Number of working household members increased; 1st 2=Price of crops/ fish/ meat increased; 05.16.02 2nd 3=Business environments got better; 05.16.03 3rd 4=Wage rate in farm employment increased; 5=Wage rate in non-farm employment increased; 6=Job opportunities increased; 7=Household members skills and experience improved; 8=Other (specify 9=Other (specify 10=Other (specify

What are reasons for the decrease? Select three choices at maximum.

05.17.01	1=Number of working household members decreased;
05 47 00	2=Price of crons/ fish/ meat fell down:

- 2=Price of crops/ fish/ meat fell down; 05.17.02 3=Business environments got worse;
- 05.17.03
 - 4=Wage rate in farm employment fell down;
 - 5=Wage rate in non-farm employment fell down;

6=Job opportunities decreased;

7=Household members can not fully work due to sickness;

8=Other (specify 9=Other (specify

10=Other (specify

1st	
2nd	
3rd	

6. Expenditure

How much is monthly expense for the following items? Has the expense increased or decreased from 2008?

			Monthly expense	Change from 2008 1=Increase 2=Same
06.01	Rice	06.01.01	BDT	3=Decrease 06.01.02
06.02	Foods other than rice	06.02.01	BDT	06.02.02
06.03	Clothing	06.03.01	BDT	06.03.02
06.04	Transport (Rickshaw, bus/ taxi fare, fuel for vehicle)	06.04.01	BDT	06.04.02
06.05	Energy source (firewood, charcoal, kerosene, electricity)	06.05.01	BDT	06.05.02
06.06	Water	06.06.01	BDT	06.06.02
06.07	Housing (rent, loan), Land rent	06.07.01	BDT	06.07.02
06.08	Education	06.08.01	BDT	06.08.02
06.09	Health, medical care, medicine	06.09.01	BDT	06.09.02
06.10	Remittance	06.10.01	BDT	06.10.02
06.11	Saving	06.11.01	BDT	06.11.02
06.12	Lending to relatives or other persons	06.12.01	BDT	06.12.02
06.13	Тах	06.13.01	BDT	06.13.02
06.14	Total	06.14.01	BDT	06.14.02

[Attachment to Annex 6]

7. Employment

I would like to ask questions about Economic activities and Employment status of household members aged 15 and over

[Note] - One choice at maximum for one household member.

- For a current household member who did not belong to this household in 2008, please choose "Not household member at that time."

		Current		In 2008	
		Economic activity currently engaged in the most	Employment status in his/her current major economic	Economic activity engaged in the most in 2008	Employment status in his/her major economic activity in
07.04		07.01.01	activity	07.01.03	2008 07.01.04
07.01	Household head	07.01.01	07.01.02	07.01.03	07.01.04
07.02	member 1	07.02.01	07.02.02	07.02.03	07.02.04
07.03	member 2	07.03.01	07.03.02	07.03.03	07.03.04
07.04	member 3	07.04.01	07.04.02	07.04.03	07.04.04
07.05	member 4	07.05.01	07.05.02	07.05.03	07.05.04
07.06	member 5	07.06.01	07.06.02	07.06.03	07.06.04
07.07	member 6	07.07.01	07.07.02	07.07.03	07.07.04
07.08	member 7	07.08.01	07.08.02	07.08.03	07.08.04
07.09	member 8	07.09.01	07.09.02	07.09.03	07.09.04
07.10	member 9	07.10.01	07.10.02	07.10.03	07.10.04
07.11	member 10	07.11.01	07.11.02	07.11.03	07.11.04
07.12	member 11	07.12.01	07.12.02	07.12.03	07.12.04
		Code of Economic Ac	tivitv]	Code of Employment	Status

Code of Economic Activity]

- 1 = Agriculture/ Fishery/ Livestock;
- 2 = Industry;
- 3 = Water/Electricity/Gas
- 4 = Construction
- 5 = Transport/ Communication
- 6 = Hotel/Restaurant
- 7 = Trade
- 8 = Finance
- 9 = Household sector/ Housework
- 10 = Public administration/defense
- 11 = Non-government public service
- 12 = Jobless
- 13 = Schooling as student
- 14 = Not household member at that time/ Not
- aged 15 or over at that time
- 15 = Other(specify
- 16 = Other(specify
- 17 = Other(specify

07.13 Is the employment/ farming/ private business condition of your household better or worse in comparison with in 2008?

07.14 If it is better, why do you think it is better?

- [Code of Employment Status]
- 1= Farmer on agriculture/ fishery/ livestock in farm owned/rented by household members on his/her or household members' account
- 2= Self-employed in non-farm activities/ employee of household's business;
- 3= Employee of private enterprise;
- 4= Government official/employee;
- 5= Daily-paid worker;

7= Housework in his/her household;

- 8= Jobless;
- 9= Student:
- 10= Not household member at that time/ Not aged 15 or over at that time
- 11= Other (Specify
- 12= Other (Specify 13= Other (Specify
 - 1= Better;
 - 2= Same (go to 08.01);
 - 3= Worse (go to 07.15);

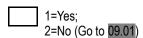
[Attachment to Annex 6]

07.15 If it is worse, why do you think it is worse?

8. Agriculture

08.01

Does any household member operate in agricultural land owned by/ leased in by household members?



What crops do you produce?

08.02.01	1= Rice (Aus)	1 = Yes		
08.02.02	2= Rice (Amán)	2 = No		
08.02.03	3= Rice (Boro)			
08.02.04	4= Tobacco			
08.02.05	5= Maize			
08.02.06	6= Sweet corn			
08.02.07	7=Vegetable			
08.02.08	8= Wheat			
08.02.09	9= Jute			
08.02.10	10= Pulse			
08.02.11	11= Potato			
08.02.12	12= Chili			
08.02.13	13= Other ()			
08.02.14	14= Other ()			
08.02.15	15= Other ()			
08.02.16	16= Other ()			
00 02 04	What are major crops? Select three choices at maximu		a da	
08.03.01		See 08.02 for C	ode	
08.03.02 08.03.03	2nd 3rd			
00.03.03	510			
	Where do you sell your crops currently? Where did you	sell crops in 2	008?	
		Now	in 2008	7
08.04.01	At farm gate/ house (buyers come to your farm/house)	08.04.01.01	08.04.01.02	1 = Yes
08.04.02	Shop at local	08.04.02.01	08.04.02.02	2 = No
08.04.03	Growth Center/ Rural Market	08.04.03.01	08.04.03.02	\dashv
08.04.04	In Pourashava	08.04.04.01	08.04.04.02	
08.04.05	Other (specify)	08.04.05.01	08.04.05.02	
08.04.06	Selling crops in 2008	08.04.06.01	08.04.06.02	_
00.01.00				

[Question to person currently selling crops at farm gate or house] (If the household does not sell crops at farm gate or house, go to 08.06.)

08.05 Are there more buyers coming to your farm/house than in 2008?

1=Yes; 2=No

[Attachment to Annex 6]
[Question to person currently selling crops at Growth center/ rural market] (If the household does not sell crops at Growth Center/ Rural Market, go to 08.13.) What is the mode of transportation to bring crops to Growth Center/ Rural Market? 1=Head load (Walking); 2=Bicycle; 3=Van; 4= Mini truck; 5=Rickshaw; 6=Bus; 7=Animal, 8=Other(specify)
How far is the Growth Center/ Rural Market from your farm?
Has the access to Growth Center/ Rural Market become better than in 2008? 1=Yes; 2=No (go to 08.11)
Have you received the following kinds of benefit from the better access? Low transportation cost 1 = Yes Short transportation time 2 = No Better selling price More sales More buyers/customers Image: Customers
Apart from the above, has the better access to Growth Center/ Rural Market brought any other benefit to you?
Is there any problem regarding a road to Growth Center/ Rural Market? 1= Yes; 2= No (go to 08.13)
If there is a problem, please specify the problem.
[Question to <u>only</u> person currently selling crops <u>in Pourashava</u>] If the household does <u>not</u> sell crops in Pourashava, go to 08.20. What is the mode of transportation to bring crops to the Pourashavas? 1=Head load (Walking); 2=Bicycle; 3=Van; 4= Mini truck; 5=Rickshaw; 6=Bus; 7=Animal, 8=Other(specify) How far is the Pourashava from your farm?
Has the access to the Pourashavas become better than in 2008? 1=Yes; 2=No (go to 08.20)
Have you received the following kinds of benefit from the better access? Low transportation cost 1 = Yes Short transportation time 2 = No Better selling price More sales More buyers/customers Apart from the above, has the better access to Pourashava brought any other

[Attachment to Annex 6]

08.18 Is there any problem regarding a road to the Pourashavas?

1=Yes; 2=No (go to 08.20)

08.19 Please specify the problem.

[Question to <u>All</u> Respondents]

How have the following changed from 2008? 08.20.01 Crop price 1= Increased 08.20.02 Profit 2= Same 08.20.03 Total amount of sales 3= Decreased 08.20.04 Amount of sales at Growth Center/Rural Market 08.20.05 Amount of sales in Pourashava 08.20.06 Number of middlemen and customers Number of middlemen and customers from Pourashava 08.20.07

9. Market

How far is a market where your household buys food and goods the most often? What mode of transportation is taken to go to the market?

		Distance (km)	Dry season		Rainy season	
			Mode of	Time	Mode of	Time
			transportation	(hh.mm)	transportation	(hh.mm)
09.01		09.01.01	09.01.02	09.01.03	09.01.04	09.01.05
		Code			Mini truck; 5=Ricks	shaw; 6=Bus;
		Note		ner(specify that a market is not a	accessible.)
	How often (do your household r	nembers an to th	e market?		
09.02			•	ry season	1= Everyday	
09.03				ny season	2= A few times a v	veek
00.00			i (dii		3= A few times a r	nonth
					4= Less than a fev	v times a month
00.04	lles the fre	automotic of action to a				ad
09.04		quency of going to r	narket increased	or decreased	1= Increas 2= Same	ieu
	compared	with in 2008?			3= Decrea	sed
09.05	le acces tr	o the market better o	or worso than in 2	00082	1= Better	
09.05				2000 ?	2= Same	
					3= Worse	
09.06		household face any	problem regardir	a access to the	1= Yes	
09.00	market?	household face any	problem regardir	ig access to the	2= No (go	to 10.01)
	market:				(30	
09.07	lf yes, spec	ify the problem.				

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[Attachment to Annex 6]

10. Traffic

	uld like to ask questions about traffic in your living ing area means area within 2-3 km away from your house.]	area.
	Have the following increased in your living area compa	ared with in 2008?
10.01	Traffic jam 1= Increase	; 2= Same; 3= Decrease
10.02	Traffic safety	
	How often do you use the following public transportation	on?
10.03	Rickshaw	1= Every day
10.04	Auto rickshaw/ CNG /Tempo	2= A few times a week 3= A few times a month
10.05	Taxi	4= A few times a year
10.06	Rickshaw Van	5= Do not use
10.07	Local bus	
10.08	Long-distance bus	
10.09	Are you satisfied with public transportation?	1= Satisfied (go to 10.11); 2= Not satisfied
10.10	Why are you not satisfied with public transportation?	
10.11	Is there bus terminal in your living area?	1= Yes; 2= No (go to 10.14)
10.12	If there is bus terminal, does the bus terminal require improvement?	e 1= Yes; 2= No (go to 10.14)
10.13	If improvement is required, please give suggestions for improvement.	
10.14	Are there street lights in your living area?	1= Yes; 2= No (go to 11.01)
10.15	If there are street lights, are you satisfied with the stre	et lights? 1= Yes (go to 11.01); 2= No
10.16	If not satisfied, please tell me reasons.	

11. Im	npact of Rural Road (only Union)				
11.01	Is there any road crossing or nearby your Union that was improved in and after 2008?	1= Yes; 2= No (go to 12.01)			
	Has the improvement of road caused the following?				
11.02		Yes			
11.03	Better access to school 2=	No			
11.04	Better access to hospital/ health center/ clinic				
11.05	Decrease in transportation cost				
11.06	Decrease in transportation time				
11.07	More income				
11.08	Better job opportunity				
11.09	Better business environment				
11.10	Higher price of crop to sell				
11.11	Lower price of food to buy				
11.12	More buyers of crops				
11.13	Higher land price/ land rent				
11.14	More in-migration to this area				
11.15	More out-migration from this area				
11.16	Apart from the above, has the improvement of the road brought any impact on your living?				
11.17	Is there any problem regarding the road? 1= Yes;	2= No (go to 12.01)			
11.18	If yes, please specify the problem.				
12. lm 12.01	npact of Growth Center (only Union) Is there a Growth Center in this Union or near Union that was constructed or improved after 2008?	1= Yes; 2= No (go to 13.01)			
12.02	How far is the Growth Center from your house?	km			
12.03	How often do your household members go to the Growth Center	? 1= Everyday 2= A few times a week 3= A few times a month 4= Less than a few times a month 5= Do not go			
12.04	If nobody of your household members go to the Growth Center, why?				

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[Attachment to Annex 6]

[Attachment to Annex 6]

Has the construction or improvement of the Growth Center caused the following?

12.05	Easier to sell agricultural crops	1= Yes
12.06	Easier to sell products of your business	2= No
12.07	Better job opportunity	
12.08	Better business environment	
12.09	Higher price of crop to sell	
12.10	Lower price of food to buy	
12.11	More income	

- 12.12 Apart from the above, has the construction/ improvement of the Growth Center brought any impact on your living?
- 12.13 Is the Growth Center satisfactory?
- 12.14 If not satisfactory, please specify reasons.

1= Yes (go to 13.01); 2= No

[Attachment to Annex 6]

)

13. Access to services and facilities

Please tell me about access to the following services and facilities.

[Note: In case that none of the household members goes to facilities, put the code of "98" in the cells of Distance.]

		Distance	Mode of Transportation	Transportation time (hh:mm)	
		(km)		Now	Year 2008
13.01	Primary school	13.01.01	13.01.02	13.01.03	13.01.04
13.02	Secondary school	13.02.01	13.02.02	13.02.03	13.02.04
13.03	Health clinic	13.03.01	13.03.02	13.03.03	13.03.04
13.04	Union complex (Only Union)	13.04.01	13.04.02	13.04.03	13.04.04
13.05	Upazila complex	13.05.01	13.05.02	13.05.03	13.05.04
13.06	Bank	13.06.01	13.06.02	13.06.03	13.06.04
		1=Walking; 2	=Bicycle; 3=Van; 4= Mini tr	uck; 5=Rickshaw;	6=Bus;

7=Animal, 8=Other(specify_____

14. Migration

We would like to know situation and reasons of the migration of your household. Please understand that we ask about immigration of household as a whole. Then, we ask about migration of household members.

14.01	When was the settlement of your household established in the current place?	1= In or after <u>parents</u> ' generation; 2= In or before <u>grandparents'</u> generation (go to 14.10)
14.02	How many years ago was the settlement established in the current place?	1= 0-5yrs; 2= 6-10yrs 3= 11-20yrs 4= 21-30yrs 5= 31yrs and more (go to 14.10)
14.03	Specify how many years ago was the establishme	ent if you remember years ago
14.04	In which generation did the settlement happen?	1=his/her generation; 2=parents' generation
14.05	Where did your household live before your household moved in the current place?	1=Same village/mouza/ward 2=Same Pourashava/Union but different village/mouza/ward; 3=Same Upazila but different Pourashava/Union 4=Same Zila but different Upazila 5=Outside Zila 6=Outside the country
14.06	During the time when your household lived in the last place, was the last place urban or rural?	1= Urban; 2= Rural

[Attachment to Annex 6]

14.07.01 14.07.02 14.07.03	What were reasons for the in-migration? 1=Buy land 2=Look for job 3=Start job 4=Start business 5=Escape from war 6=Not able to continue staying at the former place 7=Good living environment 8=For better public security	1st 2nd 3rd
	9=Disease	
	10=Marriage 11= Education	
	12=Other(specify	_)
	13=Other(specify	_)
	14=Other(specify	_)

Why did you select the current place to move and live? Please answer whether the following play an important role in your decision to live in the current place.

		_
14.08.01	1. Employment condition was good.	1=Yes
14.08.02	2. Conditions for business were good.	2=No
14.08.03	3. Market to sell crops and buy goods was good.	
14.08.04	4. Land/ housing price or rent was cheap.	
14.08.05	5. Relatives/Acquaintances were here.	
14.08.06	6. Good infrastructure/public service was available.	
14.08.07	7. Primary/ secondary school was good.	
14.08.08	8. College/ university was good.	
14.08.09	9. Good health facilities were available.	
14.08.10	10. Traffic accessibility was good.	
14.08.11	11. Water supply was available.	
14.08.12	12. Electricity supply was available.	
14.08.13	13. Environment was hygienic.	
14.08.14	14. Public security is good.	
14.08.15	15. No other choice. No where else to go.	
14.08.16	16. Other (specify)	

Among the above, what were the strongest reasons for selecting the current place to live?

14.09.01 14.09.02 14.09.03		1st Select from 1 to 16. 2nd	
14.10	Do you want or plan to move the living place of your household from the current place?	Yes = 1; No = 2 (go to 14.14)	
14.11	Why do you want or plan to move your household? 1= Job opportunity is scarce 2= Business condition is bad 3= Housing structure is poor 4= Living environment surrounding your house is bad 5= Tenancy is limited 6= Public security is bad 7= Other (specify)	

		Annexes	of Final Report	
				[Attachment to Annex 6]
14.12	1= Sa 2= Sa 3= Sa 4= Sa 5= Ou	u want to move your household me village/mouza/ward me Pourashava/Union but different vi me Upazila but different Pourashava/ me Zila but different Upazila tside Zila tside the country	llage/mouza/ward	
14.13	Is the place th area?	nat you want or plan to move u	rban or rural 1:	= Urban; 2= Rural
We wou	ld like to ask	questions about migration	n of household membe	ers
14.14	consecutive	household member who staye six or more months since 200 current place?		1= Yes 2= No (go to 14.17)
14.15	How many h	nousehold members stayed out	tside?	persons
	[Note: If outs	ne the members who stayed ou side stay of the same person for cons the latest stay.] Where were places of the		red more than once, please write What were main reasons
		outside stay?	rural area?	for the outside stay?
		 1= Same village/mouza/ward 2= Same Pourashava/Union but different village/mouza/ward 3= Same Upazila but different Pourashava/Union 4= Same Zila but different Upazila 5= Outside Zila 6= Outside the country 	1= Urban 2= Rural	1= Schooling 2= Marriage 3= Look for job 4= Start job 5= Start business 6= Disease 7= Parents moved 8= No where else to stay 9= Other () 10= Other ()
14.16.01	Member 1	14.16.01.01	14.16.01.02	14.16.01.03
14.16.02	Member 2	14.16.02.01	14.16.02.02	14.16.02.03
14.16.03	Member 3	14.16.03.01	14.16.03.02	14.16.03.03
14.16.04	Member 4	14.16.04.01	14.16.04.02	14.16.04.03
14.16.05	Member 5	14.16.05.01	14.16.05.02	14.16.05.03
14.16.06	Member 6	14.16.06.01	14.16.06.02	14.16.06.03
14.16.07	Member 7	14.16.07.01	14.16.07.02	14.16.07.03
14.16.08	Member 8	14.16.08.01	14.16.08.02	14.16.08.03
14.16.09	Member 9	14.16.09.01	14.16.09.02	14.16.09.03

We would like to ask questions about former household members who currently live outside of your household.

14.17 Is there a former household member who stayed in the current place as a household member in *last 5 years* but who currently stays outside?

1= Yes 2= No (go to 15.01)

[Attachment to Annex 6]

14.18 How many those former household members are there outside?

2 110 (90 10

persons

How many mose former household members are mere out

	Please tell about those former household members.						
		Where are they currently	Are they	What were main	Do they have any		
		living?	living in	reasons that they left	financial relation		
			urban or	the current place?	with your		
		1= Same village/mouza/ward	rural area?		household?		
		2= Same Pourashava/Union but different					
		village/mouza/ward	1= Urban,	1= Schooling	1: money to him/her		
		3= Same Upazila but different	2= Rural	2= Marriage 3= Look for job	2: money from		
		Pourashava/Union		4= Start job	him/her 3: No relation		
		4= Same Zila but different		5= Start business	5. NO TEIALION		
		Upazila		6= Disease			
		5= Outside Zila		7= Parents moved			
		6= Outside the country		8= No where else to stay			
				9= Other ()			
				10= Other ()			
14.19.01	Member 1	14.19.01.01	14.19.01.02	14.19.01.03	14.19.01.04		
14.19.02	Member 2	14.19.02.01	14.19.02.02	14.19.02.03	14.19.02.04		
14.19.03	Member 3	14.19.03.01	14.19.03.02	14.19.03.03	14.19.03.04		
14.19.04	Member 4	14.19.04.01	14.19.04.02	14.19.04.03	14.19.04.04		
		14.19.05.01	14.19.05.02	14.19.05.03	14.19.05.04		
14.19.05	Member 5						
14.19.06	Member 6	14.19.06.01	14.19.06.02	14.19.06.03	14.19.06.04		
14.19.07	Member 7	14.19.07.01	14.19.07.02	14.19.07.03	14.19.07.04		
14.19.08	Member 8	14.19.08.01	14.19.08.02	14.19.08.03	14.19.08.04		
14.19.09	Member 9	14.19.09.01	14.19.09.02	14.19.09.03	14.19.09.04		

[Attachment to Annex 6]

15. Co	ommunity	
45.04	Have the following changed since 2008?	1 de la casa d
15.01 15.02	Relationship to relatives	1= Increased 2= Same
15.02	Relationship to neighbors Number of neighbors that you do not know	3= Decreased
15.05	Number of heighbors that you do not know	
15.04	What community organizations and community activities/meeting exist in your living area?	
15.05	How do you participate in the community organization and community activities/meeting?	
15.06	Compared with in 2008, have community organization activities, and meeting become active or inactive?	ns, 1= Active 2= Inactive (go to 15.08)
15.07	If active, why has it become active?	
15.08	If inactive, why has it become inactive?	

16. Others

16.01	Has the number of homeless people increased in your living area since	1=Yes;	2= No
	2008?		

The questions ended. Thank you very much for your kind cooperation.

[End]

[Attachment to Annex 6]

Annex 7

Labor Contracting Society

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1 General

This annex describes the process followed for the use of Labor Contracting Societies (LCS) in Bangladesh for LGED-managed road projects. The process started in the early 1980s, and has been refined and included as a component in off-road maintenance as well as a means for direct poverty alleviation in rural areas under LGED projects. The NRRDLGIP will follow the approach already used by the LGED on the rural road subprojects under Component 1.

The routine maintenance of off-pavement including shoulders, slopes, roadside tree plantations, surface water drainage channels, culverts, and bridges is suited to labor intensive methods. The work requires only a few basic hand tools and limited technical expertise. Day-to-day routine maintenance activities can generally be carried out by destitute women laborers formed into a Labor Contracting Society (LCS) on a yearly contract basis.

Destitute women laborers living in the vicinity of the road to be maintained should be made aware of the maintenance work through local public announcements, and applications for participation should be addressed to the Upazila Engineer (UE). The women laborers' age range should be between 18 and 40 and they should be mentally and physically sound to take responsibility for their work. Landless and unemployed women having no earning member in the family will get priority in selection.

A small group of four to seven laborers will work on a stretch of road to repair damage as per instructions of the Upazila technical staff and the maintenance supervisor (hereinafter "supervisor"). More than one group may be engaged on roads that are more than 7 km in length. The laborers work eight hours per day. Each laborer should ensure that the planted trees in his or her assigned length are properly taken care of.

The UE will prepare a road-wise estimate considering length of the road, number of laborers required, and the labor wage for seven days a week. The estimate should be based on one laborer for each kilometer of the road length; the wage rate will be as per approved LGED schedule of rate. Costs of small hand tools such as spade, bucket, and basket should be included in the estimate where necessary. Costs of signboards at both ends of the road may also be included in the estimate.

The responsibility of the supervisor will be for each road under direction of the UE who will look after the off-pavement maintenance work closely, distribute day-to-day works to the labor group, and supervise the group, so that proper work is carried out at the right time in the right place with adequate amount and quality. A contract in writing should be concluded between the UE before starting the maintenance work. Upon satisfactory performance of the supervisor, the contract may be renewed on a yearly basis. If the performance of the supervisor is unsatisfactory, the UE will issue a warning letter up to twice. When and if the UE needs to issue such letter for a third time, the UE will replace the supervisor with a new one. The supervisor must submit a monthly report of works performed by the groups under him or her at the end of each month in the prescribed form to the UE through the Community Organizer of the LGED. The Community Organizer will visit the roads every second week to check whether the tasks are performed in terms of quantity and quality and to provide comments on the monitoring registry. The UE will arrange necessary training for the supervisors to acquaint them with their tasks and responsibilities.

2 Description of works

The LCS laborers engaged in off-pavement routine maintenance are required to undertake the following activities:

• Maintenance of shoulders to its proper width as per design standard with respect to road type

(UZR/ UNR) including maintenance of 5% cross-fall with the help of wooden shoulder board to facilitate drainage

- Cutting of high shoulders to maintain 5% cross-fall at road shoulders to avoid ponding at pavement edge or shoulder
- Filling of low or depressed shoulders at proper grade including filling small ditches on the shoulder with proper compaction to facilitate drainage
- Repair rain cuts, rat-holes on shoulders and slopes
- Removal weeds from abutment and wing walls and cleaning weep-holes, rain water pipes of the road structures (bridge/culverts)
- Removal debris at the in-let, out-let, and inside of culverts, and keep them clean for easy passage of water
- Replacement of turf on the side slopes of roads
- Care taking of roadside tree plantations and clean bushes
- Cut back grass, overhanging branches, and other vegetation
- Stockpile suitable materials on shoulder for use in the monsoon season
- Maintenance of traffic signs
- Reporting of accidents

The LCS laborers performing routine off-pavement maintenance on site should carry the flag with LGED's symbol, so that they can be identified easily while they are at work.

3 Scheme preparation and cost estimation

Scheme preparation shall be carried out under the supervision of the UE on the basis of actual measurements of defects and damages determined through a road condition survey. The UE should make the fullest use of the plan books, inventories and maps, condition survey and detailed inspection report, and finally compile a maintenance program using prescribed forms. Details on the quantity and cost estimate shall be prepared using the LGED schedule of rate and standard specification using the Rate Schedule and Estimate Preparation (RSEP) software. Any item of work beyond the LGED schedule of rate shall be defined precisely with justification and sent to the LGED Headquarters for approval. Best use of salvage materials should be ensured by physical inspections on the site while preparing cost estimate of schemes. Salvage materials recovered from the proposed scheme will have to be taken into account and recorded in the scheme estimate. The UE will take care of all preparatory works of the yearly maintenance program at the Upazila level and submit the same to the district Executive Engineer (XEN) within the stipulated date for taking further necessary actions.

The estimate of off-pavement routine maintenance should be prepared on the basis of seven working days per week, 365 days for a normal year and 366 days for a leap year. In preparing the estimate, the rate approved in the LGED schedule of rate, i.e., BDT 120 per day per person for a length of 1 km, shall be applied. To ensure proper supervision of off-pavement routine maintenance, maintenance supervisor will be engaged to supervise a group of 15-20 laborers. The supervisor will also work like the maintenance laborer and they will be paid BDT 130 per day on master role basis. Purchase of tools and equipment will be included in the estimate which should not be more than 5% of the yearly labor cost.

4 Work planning and distribution of work to LCS group

The UE will ensure routine off-pavement maintenance of all the roads taken under annual maintenance program in his Upazila round the year by engaging LCS with the close involvement of maintenance supervisors. The Upazila technical staff will monitor the performance of supervisors at least on a fortnightly basis (two weeks interval) in the field and take account of work done and fix the target for next fortnight during their visit. The UE will supply required number of register to each maintenance

group, where the supervisor will record the tasks performed by the group day by day. To supervise day-to-day works in off-pavement maintenance in the field, one supervisor can be engaged for every 15-20 maintenance laborers in general on purely master role basis. The supervisor will be either a male or female member from the locality engaged by the UE. He or she will be mobile, able to follow instructions from the Upazila technical staff and issue instructions to the laborers. Only one supervisor can be appointed in one Union. Like maintenance laborers, the supervisor should be selected from the vicinity of the road and low income groups, have basic knowledge in earthwork in road (literate and numerate), and own and be able to ride a bicycle.

Each group will be responsible for maintenance of 4- to 7-km road shoulders and slopes, including care taking of the planted trees on the same stretch. The community organizer (CO) and the supervisor will play an important role in the off-pavement routine maintenance work by checking that the most necessary work is done all the time. The supervisor will prepare monthly work plan for each LCS group in the prescribed form showing such details as the location of work, type of works, and length. The supervisor will submit the work plan to the UE on the first day of each month through CO so that the Upazila technical staff can monitor the progress with the monthly plan and provide necessary instructions for proper execution of routine off-pavement maintenance on the roads. The following aspects should be taken into consideration in preparing the work plan for routine off-pavement maintenance by the group:

- Type of works with quantities in the light of condition of the shoulders of the road
- Availability of earth from the road side land
- Weather condition (monsoon, rain, etc.)

The quantity of work may vary depending on the above conditions. For example, if the condition of the shoulder is very bad (shoulder width reduced substantially), the assigned length to the group will be lower compared to a good-condition road. In the rainy season, the earth becomes scoured, and the nature of works and targets would change.

The laborers working on the road shall form themselves into a group and elect one chairperson and a secretary to represent them, and sign the contract for one year on their behalf on the standard contract form. The contract could be extended for a maximum period of five years subject to satisfactory performance of individual laborers and the group. The chairperson and the secretary will also act as laborers and maintain their respective stretches of road on the same basis as the other laborers.

5 Training

Training is an integral part of the maintenance works using LCS. While the UE will arrange training for all LCS laborers including the supervisor, the CO of the concerned Upazila will take an active part in organizing training courses. The UE should consult with XEN (Training) of the concerned district and take his advice in this regard, and delegate the execution of the training to the Upazila Assistant Engineer, who is officially in charge of training. A suitable training venue will be selected close to the work site for this purpose. The following topics are typically covered in a training course, but location-specific topics will also be included in a training course:

- Roles and responsibilities of LCS laborers, supervisor, LGED staff, NGO, and so on
- Description of work related to off-pavement routine maintenance
- Work planning and distributing works among the LCS laborers
- Management of LCS group
- Solving internal and external problems of LCS
- Payment distribution and savings
- Income generation training for sustaining livelihood after the completion of contract

Both supervisors and LCS laborers must take part in such training courses as per instruction of the UE. Absence from the training course without a valid reason may result in termination from the job. It is further proposed that LCS laborers will receive allowance when they are receiving training, especially when the training is provided in locations away from the LCS member's homes.

6 Supervision and monitoring at field level

Supervision and monitoring are a very important part in implementing the road maintenance program effectively and efficiently at the field level. It is essential to ensure that the most important work is done properly with adequate quantity and acceptable standards. In order to establish an effective monitoring system, prescribed forms should be used to collect information on different aspects and transmitted to different levels of authority. The maintenance supervisor and technical staffs at the Upazila level play an important role in the monitoring process. The UE will collect and preserve all relevant information in his office and send monthly summary reports to the district Executive Engineer (XEN) office in the prescribed form. The following system should be followed to monitor off-pavement routine maintenance activities:

- 1) To monitor the routine off-pavement maintenance activities closely, a field monitoring register for each group is supplied by the UE through the respective supervisor. The group leader keeps the register at the work site, where the supervisor records relevant pieces of information on the day-to-day work carried out by the group such as location, type, and amount of work performed.
- 2) The group leader takes daily attendance of the laborers on the standard master-roll form and the supervisor counter-signs it to certify the attendance of the laborers.
- 3) The supervisor visits daily all the roads under his or her responsibility. During these visits, he or she should spend considerable time (preferably two hours or more) with each group and take account of all the works assigned to the group on the previous day and record them in the register. Meanwhile, he or she will set the target for the current day and also take necessary steps to resolve problems if any.
- 4) The concerned Sub-Assistant-Engineer (SAE) and Community Organizer (CO) will visit the roads every two weeks to check the tasks performed by the group in terms of quantity and quality and give his or her comments on the monitoring register. The SAE will also assign the task of the next two weeks to the supervisor. If negligence is found with the supervisor in performing his/her duty, the SAE and CO will report to the UE for necessary action.
- 5) The supervisor will prepare a monthly summary report on works done at various locations of each road using the prescribed form and submit it to the SAE through the CO. In preparing the report, the supervisor will extract necessary information from the monitoring register, where day-to-day performance is recorded.
- 6) The SAE will check and verify the report submitted by the supervisor and forward it to the UE for necessary action.
- 7) The UE will review the monthly report, which is randomly checked at the work site and comments are provided and forwarded to the district XEN for paying the monthly bill in full or part according to the UE's observations. The UE should forward the report to the XEN in the first week of every month.
- 8) The XEN will take necessary action for paying the monthly bill on the basis of the report from the UE and give necessary advice to the UE for implementation of the work.
- 9) The XEN and the regional SE will visit the field to check the quality and progress of off-pavement maintenance work and provide necessary advice to the field staff.

With regard to execution of routine off-pavement maintenance of LGED roads by a LCS group, the responsibilities at various levels of LGED officials and staff are given in Section 8 of this annex.

7 Payment

Payment to the LCS group will be made by the UE through a check once a month to the group account that is opened under the joint name of LCS Chairperson and the Secretary in a nearby bank, according to a defined schedule. The SAE of the respective Upazila will inspect the work by checking the monthly summary report submitted by the supervisor with the actual work done by the LCS in the field, before preparing the check. The monthly bill will only be paid against satisfactory performance of works assigned to the group. If the given tasks are not completed, the payment will be withheld until the work is done with acceptable quantity and quality. If the work remains incomplete despite repeated instruction, the UE could terminate the contract of the concerned laborers or groups, and appoint new ones for replacement.

Since care taking of the planted trees on roadside is a continuous task of each laborer for a particular stretch, the concerned laborer has to ensure that the work is carried out. In case of unavoidable reasons such as illness, the absent laborer must arrange her replacement. If any laborer remains absent from work without a valid reason, the salary will first be deducted, and even if the work is rectified, the employment will be terminated.

Payment to the individual laborer will be made from the LCS group account subject to receipt of the payment from the treasury against satisfactory and approved work.

The bill will be prepared by the concerned SAE with relevant documents such as contract, monthly summary report, and attendance records, and duly signed by the UE before being forwarded to the XEN of the district. The XEN will check the submission of the relevant documents and send the bill to the treasury for payment. Upon receiving the check issued by the treasury, the UE will advise the concerned bank to transfer funds to respective LCS accounts. The LCS chairperson and secretary will draw money from the joint account and distribute wages among the laborers in the presence of the supervisor and the CO. Unnecessary delay has to be avoided in paying the laborers, while utmost attention has to be given to avoid duplication among the projects in selecting laborers for routine off-pavement maintenance. If any financial irregularities are found, the concerned UE and the district XEN will be held responsible jointly.

In order to attain self-reliance through economic solvency, each LCS laborer and the maintenance supervisor must save a certain amount from their wages. All laborers and supervisors must open an individual saving bank account in a nearby bank within seven days of their appointment, and will receive necessary support from the UE to this effect. After receiving their monthly payment, the LCS laborers will deposit BDT 48 per day for each working day, and the maintenance supervisors will deposit BDT 52 per day for each working day to their respective bank account. The UE will examine the bank deposit from time to time. Upon expiration of the contract, termination of job or death, the concerned person who is authorized as representative of the account holder will withdraw money from that account. No one will be allowed to withdraw money from the said account before termination or expiration of the contract.

The XEN from the district will monitor monthly saving of LCS laborers and supervisors on a regular basis, and submit the quarterly savings report to RMRSU at the LGED HQ using the prescribed form.

8 Responsibilities of respective posts

Responsibilities of the Regional Superintending Engineer

- Approve the Annual Road Maintenance Program (ARMP) of the district under the jurisdiction of the region through a regional meeting.
- Approve all routine maintenance scheme estimates of the districts under the jurisdiction of the region, except revised estimates.
- Look into the maintenance activities of the whole region and extend necessary technical assistance and co-operation to the concerned XENs sin the region.
- Check and verify the planning, preparation and implementation of the "Rural Roads and Culverts Maintenance Program" of the districts within the region, so that the program follows the guidelines and instructions issued from the LGED HQ.
- Attend the District Maintenance Committee (DMC) meetings of the concerned districts and provide necessary advice, and invite XENs of the concerned districts in his office to a meeting to review the annual maintenance program for proper co-ordination in the region.
- Provide necessary support to XENs and UEs of the concerned region in solving any problem with regard to maintenance of LGED roads.
- Review the status of the updated road database of the district with the concerned district XEN in the monthly coordination meeting that the Regional Superintending Engineer chairs.

Responsibilities of the Executive Engineer (XEN)

- Ensure timely payment of wages to LCS female laborers.
- Supervise all types of maintenance work and maintain co-ordination with UEs under him.
- Review progress reports from the UEs and send necessary information to RMRSU at HQ.
- Work with UEs to resolve problems on maintenance if necessary.
- Review progress and problems of off-pavement maintenance activities in district-level coordination meetings and take necessary action to resolve any problems.

Responsibilities of the Upazila Engineer (UE)

- Select LCS laborers, and supply necessary tools and equipment to the laborers for routine off-pavement maintenance.
- Review off-pavement maintenance activities in the monthly meeting.
- Prioritize and select roads for routine off-pavement maintenance.
- Help the LCS resolve problems on routine off-pavement maintenance.
- Provide technical support and guidance to LCS in road maintenance works.
- Submit the monthly progress and monitoring report to the XEN of the district.
- Monitor the quantity and quality of work done by maintenance laborers and take necessary action where applicable.
- Take initiative in paying LCS laborers and supervisors timely and regularly.

Responsibilities of the Sub-Assistant Engineer (SAE)

- Help the UE select and prioritize LGED roads for taking under the routine maintenance program as per the maintenance guideline.
- Help the UE resolve any problems regarding execution of off-pavement maintenance works.
- Give technical support to LCS laborers and supervisors in road maintenance.
- Help the UE train female laborers in off-pavement maintenance work.
- Monitor off-pavement maintenance work of each road at least once every two weeks.
- Prepare the monthly payment bill of LCS laborers and maintain accounts of their wages.
- Monitor payment of wages to LCS members and inform the UE in this regard if necessary.
- Submit a monthly summary report for off-pavement maintenance.
- Carry out any responsibilities as per instructions of the UE.

Responsibilities of the Community Organizer (CO)

- Participate in the female LCS laborer selection process and arrange training for selected female members under the guidance of the UE.
- Provide training to female LCS laborers on routine off-pavement maintenance activities and working in groups.
- Select a new LCS laborer if necessary and provide training to her.
- Take account of works from the supervisors according to the work plan and submit a report to the UE.
- Give necessary advice to the maintenance supervisor on routine off-pavement maintenance works.
- Help LCS female members in opening savings bank accounts and encourage them to save.
- Collect road accident reports from the supervisors in the prescribed form and submit the reports to the UE after necessary checking.
- Carry out instructions of the UE in conducting maintenance works.

Responsibilities of the Work Assistant (WA)

- Evaluate the maintenance work done by LCS during the current two-week period and assign activities for the next two-week period to the maintenance supervisor.
- Follow the maintenance guideline in supervising off-pavement maintenance work of LCS.
- Help the supervisor record the works in the monitoring register, and evaluate the quality and standard of the works.
- Ensure that the monitoring register is under the custody of the Group Leader, so that the SAE, UE and XEN will know the comments on it during their visit and give their comments.

Responsibilities of the Supervisor

- Receive instructions on the type, location, and procedures on work to do from the SAE and the CO for off-pavement maintenance, and act accordingly to have the assigned female LCS laborers accomplish the work.
- Prepare a monthly work plan in the prescribed form, and submit the completed plan to the UE on the first day of each month through the CO.
- Assign work to the LCS group for the current day, take account of works performed on the previous day in relation to the work plan, and record observations on a daily basis in the work register preserved at site.
- Prepare a monthly report on the work done in the prescribed form, and submit the report to the UE through the CO at the end of each month.
- Certify daily attendance of the LCS laborers.
- Inform negligence of any LCS laborer to the CO and give warning if necessary.
- Recommend salary deduction of a LCS laborer, if the laborer does not rectify herself even after receiving warnings.
- Demonstrate tasks practically to the LCS laborers.
- If a road accident occurs, fill out the road accident reporting form and submit it to the UE through the CO.
- Monitor payment distribution, and ensure compulsory saving of wages of the individual LCS laborers to their respective saving bank accounts as per the prescribed rate.
- Deposit saving of wages of all the supervisors to their respective saving bank accounts as per the prescribed rate.
- Represent the LCS as a spokesman when required.
- Solve any problem that may arise at the site and inform the concerned CO/ SAE.

Responsibilities of the Group Leader

- Identify the amount and type of work to be done as per instructions of the maintenance supervisor and perform the work with the group as planned.
- Preserve the monitoring register at the work site, so that the SAE, UE and XEN can check the register during their visit and provide necessary comments.
- Record daily attendance of LCS laborers and obtain attestation of the supervisor.
- Distribute monthly wages among the LCS laborers in the presence of the supervisor and CO.
- Inform the supervisor, CO, SAE, and the UE of any problem in off-pavement maintenance work.
- Maintain a good relationship among the group members and a good working environment for them.
- Receive instructions from the maintenance supervisor, CO, SAE, and UE from time to time and act accordingly.

Annex 8

Proposed mechanism for the special allocation for rural-urban linkages

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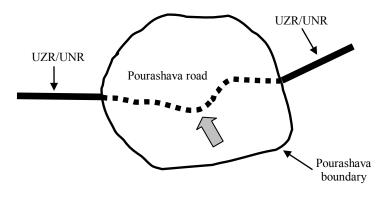
Figure A8-1 Examples of eligible subprojects satisfying the selection criteria	3
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1. Mechanism for the special allocation for rural-urban linkages

A proposed mechanism for the special allocation for rural-urban linkage is described in Table A8-1.

Table A8-1 Proposed mechanism for special allocation for rural-urban linkages

Items	Description
Amount of special allocation per eligible subproject	The special allocation provides an additional fund to Pourashavas that implement subprojects that enhance rural-urban linkages in Phase 2 or 3. The additional fund amounts to at maximum 50% of the subproject costs (but up to BDT 30 million). For instance, if a category-C Pourashava implements a subproject of BDT 40 million that is eligible for the special allocation, the fund ceiling for this Pourashava is increased by at maximum 50% of BDT 40 million. In other words, the ceiling is increased from BDT 100 million to at maximum BDT 120 million.
Total budget for the special allocation	Around BDT 200 to 300 million, and to be determined before the commencement of NRRDLGIP.
Eligible types of subprojects	Improvement and rehabilitation of Pourashava roads and gap structures, i.e., culverts and bridges
Selection criteria	 A subproject will link at least two UZRs/UNRs that are already improved or being improved or going to be improved in the area adjacent to a Pourashava but that are disconnected within the area of the Pourashava due to poor conditions of Pourashava roads and gaps. The subproject will improve the Pourashava road and build connectivity among the disconnected UZRs/UNRs and the disconnecting Pourashava road. (See Figure A8-1 and Figure A8-2.) A Pourashava is able to maintain the Pourashava road. Cooperation and coordination among Pourashava, LGED District and Upazila offices for maintenance of the road is ensured.
Implementer of projects	PIUs of Pourashavas
Fund allocation process	 The process of providing an additional fund is the same as that for other subprojects under Subcomponent 2-1. 1. A Pourashavas submits an appraisal document on an eligible subproject to the PMO. 2. The PMO evaluates the document. If the subproject is certified to meet the criteria for special allocation, a fund ceiling of the Pourashava is increased. 3. The subproject is implemented in accordance with the same implementation procedures as other subprojects.
Note	 Only one road per Pourashava is eligible for special allocation in Phase 2 or 3. If a considerable amount of the special allocation fund is left unused by the beginning of Phase 3, Pourashavas can apply the fund for the second road from the special allocation in Phase 3. When the total amount of the required additional fund for eligible subprojects proposed to the PMO exceeds the total budget of the special allocation, the PMO will reduce proportion of an additional fund from 50%. Consultants employed for Components 1 and 2 shall support the subprojects.



Case 1: A Pourashava road is connected to two improved UZRs/UNRs. The entire Pourashava road is unimproved.

Case 2: A Pourashava road is connected to two improved UZRs/UNRs. Part of the Pourashava road is unimproved.

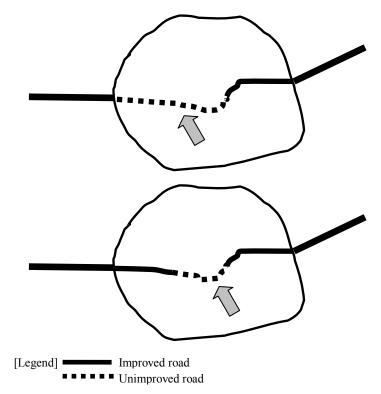
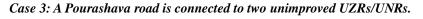
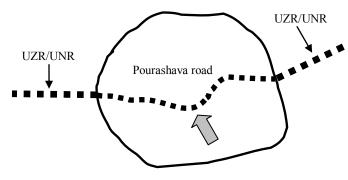
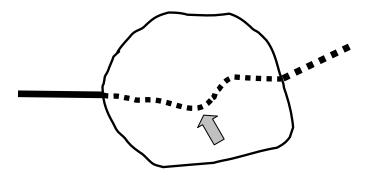


Figure A8-1 Examples of eligible subprojects satisfying the selection criteria





Case 4: A Pourashava road is connected to twoUZRs/UNRs. One of the UZRs/UNRs is unimproved, whereas the other is improved.



Case 5: A Pourashava road is connected to only one UZR/UNR.

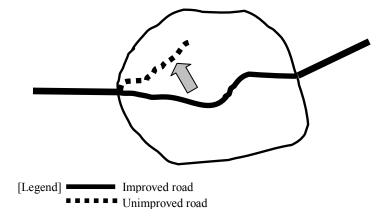


Figure A8-2 Examples of ineligible subprojects not satisfying the selection criteria

Annex 9

Subproject Agreement for Phase 2 of UGIIP-2

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1 Subsidiary Loan Agreement for Phase 2 of UGIIP-2

One of Subsidiary Loan Agreements prepared for Phase 2 of the UGIIP-2 is presented below.

SUBPROJECT AGREEMENT

Between XXXX Pourashava and Local Government Engineering Department (LGED)

- This Sub-Project Agreement records the agreement of XXXX Pourashava and the through its project management office (the PMO) relating to XXXX sub-projects proposal for construction/improvement of the Municipal transport ii) Drainage; iii) Solid Waste Management; iv) Water Supply; v) Sanitation; vi) Municipal Facilities; vii) Basic Services in Slums; in Phase-II under Part-A of the Asian Development Bank (ADB), BMZ (through KfW & and GOB assisted Second Urban Governance and Infrastructure Improvement Sector) Project (the Project)
- 2. Upon singing this Sub-Project/Agreement XXXX Pourashava will, with the assistance of the PMO, implement individual subproject activities in accordance with the Pourashava Development Plan (PDP) prepared by the respective Pourashava. The investment plan of the PDP is attached as Annexure-I the fund allocation within the sub-components in the investment plan of PDP is tentative and will be finalized by engineering survey and estimation during the preparation of the sub-projects as per the priority first of sub-component of the PDP. The fund allocation will be limited up to 50% of investment ceiling of the Pourashava under the provision of the project. The Pourashava will also carry out various governance improvement activities stipulated in Urban Governance Improvement Action Program (UGIAP Phase-II), with assistance from LGED. The UGIIP phase-II is attached as Annexure-II. The performance of the Pourashava will be closely monitored by LGED, ADB, BMZ (through KfW & GTZ) to determine the) Pourashava's eligibility for phase-III of the Project.

3. The Pourashava will

- (i) with the help of the PMO, set up a Project Implementation Unit (PIU) that will comprise "three section; (a) Infrastructure Improvement, (b) Environment, Sanitation and Slum Improvement, and (c) Urban Governance Improvement;
- (ii) with the help of the PIU, establish and maintain records and accounts and prepare financial statements related to individual sub-projects;
- (iii) report monthly to the PMO on the implementation of the subprojects and UGIAP;
- (iv) invite tender and prepare tender evaluation reports with the help 9£ MDS Consultants in accordance with project guidelines and shall be responsible for execution of the subprojects in accordance with specification design estimates;
- (v) implement, construction works, allow supervision and inspection by regional superintending Engineer of PMO Officials and MDS Consultants, and seek certification from LGED lab or other qualified (institutions for the quality of construction, materials;
- vi) for effective implementation of the UGIAP phase-II, undertake an accurate assessment of the training requirements and ensure timely participation in the training for Pourashava officials, staff and other stakeholders;
- vii) complete any requirement for land acquisition within 180 days from the signing of a Project Agreement, the otherwise, the concerned subproject will be removed from consideration, if any;
- viii) make available of inspection, examination and audit by the PMO, LGED, ADB and BMZ through KfW & GTZ related all books of accounts and records, inventories of all assets and

financial records concerning its operation relevant to the subproject and face audit by Foreign Aided Project Audit Directorate (FAPAD);

- ix) prepare and submit to the PMO, through the PIU, periodic report including financial statements as requested, giving particular attention to the financial control accountability, billing¥and collection. Annual reports shall be submitted by the end of the first quarter of each fiscal year;
- x) maintain and provide information and records relevant to the subproject for a management information system (MIS), to be set up by the PMO;
- (xi) ensure, proper use of supervision vehicles (pick-up and motorcycle) by PID and consultants posted at the Pourashava;
- (xii) make available office, space for consultant staff and incremental staff deputed from LGED within the Pourashava office for successful implementation of subproject and UGIAP phase-II;
- (xiii) adopt and fully carryout the safeguard activities following the safeguard guideline of the project;
- (xiv) adopt and fully carryout the Poverty Reduction Action Plan (PRAP), Gender Action Plan (GAP), and CBO implementation activities in accordance with the manuals prepared by PMQ and;
- (xv) provide full support and facilities to project regional coordinators for surveys, meetings and information requests.
- (xvi) sign subsidiary loan agreement (SLA) for revenue generating sub-projects with the Ministry of Finance prior to investment

4. LGED will

- (i) assist the Pourashava project activities related to financial, managerial, technical and training;
- (ii) depute the required number of technical staff at the level of sub-assistant engineer works assistant to the Pourashava to support the Pourashava engineer and the Health Officer;
- (iii) engage the Regional Superintending Engineer of LGED to regularly supervise all physical works, including environmental activities, monitor and report to the PMO and Pourashava;
- (iv) through the PMO, make necessary provisions to meet the budget requirements of the Pourashava to support activities under UGIIP
- (v) use the Urban Management Support Units (UMSUs) and Regional Urban Management Support Units (RUMSUs) and develop training programs for the Pourashava meet the requirements of the UGIAP;
- (vi) through the GICD consultants, recruit a group of facilitators (as individual consultants) to provide necessary technical support and hands on training
- (vii) make arrangement for approving award of contracts, and monitoring of, subprojects;
- (viii) guide the Pourashava through the PMO and PIUs establishing standardized criteria and procedures for procurement of civil works in accordance with ADB's Procurement. Guidelines the loan agreement provisions and guidelines on government tender
- (ix) through the PMO, procure and distribute among the Pourashavas machinery and equipment for the provision of services and O & M;
- (x) assist PMO and PIUs in establishing communications with the respective Ministries of the Government tor efficient and effective implementation of the Project; and
- (xi) coordinate with the Department of Public Health Engineering regarding the major works of water supply system including Source augmentation and the expansion of trunk mains;
- (xii) provide assistances to the Pourashava through PMO, LGED's regional office and the project consultants;
- 5. This Subproject agreement shall take effect on 1st October, 2010.

Annex 10

Financial status of Pourashavas and loan financing to Pourashavas

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1 Financial status of Pourashavas

The survey team analyzed the financial status of Pourashavas on a sample basis. The sample Pourashavas were Mymensingh, Sreepur, Poushuram, Gouripur, and Nandail Pourashavas. The basic information of the sample Pourashavas is shown in Table A10-1. The sample covered all the three categories of Pourashavas, i.e., category-A, B, and C. Besides, the sample was designed to include Pourashavas under UGIIP-2, because the NRRDLGIP is expected to bring about change in the financial status that is similar to the change made by UGIIP-2. The analysis was conducted mainly based on financial statements, while it was supplemented by interviews with relevant officials of the Pourashavas.

Item	Mymensingh	Sreepur	Poushuram	Gouripur	Nandail
District	Mymensingh	Gazipur	Feni	Mymensingh	Mymensingh
Category	А	В	С	В	С
Supported by UGIIP-2	Yes	Yes	Yes	No	No
Population in 2011	258,040	126,249	29,691	25,570	33,308

Table A10-1 Basic information of the sample Pourashavas

Source: Survey team. Population is based on Population Census 2011.

Financial management, budget, and accounting of Pourashavas are stipulated in the second chapter of the fourth part of the Pourashava Act 2009 (hereinafter the "Pourashava Act"). According to the Pourashava Act, Pourashavas shall maintain income and expenditure accounts in a specified form and system (Section 93). Pourashavas commonly maintain not double-entry but single-entry bookkeeping, and practice not accrual basis but cash basis accounting. Therefore, it is a challenge for Pourashavas to grasp accrued income and expenditure. In fact, all the sample Pourashavas adopted single-entry bookkeeping and cash basis accounting, except for an account separated for the water supply section in Mymensingh Pourashava.

Pourashavas shall prepare and sanction annual budgets before the commencement of each financial year as per the Pourashava Act (Section 92). The annual budgets reflect: 1) proposed income and expenditure of the next year; 2) revised income and expenditure of the current year; and 3) settled actual income and expenditure of the previous year. They show overall picture of financial status and a base point for financial analysis.

An overall picture on revenue and development accounts is shown in Table A10-2.¹ The revenue expenditure amounts to BDT 106 million and 19 million for Mymensingh and Sreepur Pourashava, respectively, while it ranges only between BDT 4 to 7 million for the other Pourashavas. This indicates that the fiscal scales differ significantly between the Pourashavas and are approximately proportional to the population sizes.

The amount of the revenue income is more or less the same as that of the revenue expenditure. This means that the revenue income does not yield considerable budget for development work. In actuality, except for Sreepur Pourashava,² the transfer from the revenue account to the development account is

¹ It is worth noting that accrued income and expenditure are not incorporated. This is because Pourashavas adopt the cash-basis accounting. Therefore, the influence of outstanding liabilities and receivables is not reflected hereof.

 $^{^2}$ Exceptionally, the transfer from the revenue to the development accounts of Sreepur Pourashava is remarkably high. However, it contains substantial error and does not reflect actual conditions. This is because the income and development accounts are not separately maintained in Sreepur Pourashava. Therefore, for the sake of the financial analysis, the survey team regarded budget left from the two accounts as the end balance of the development account. Due to this assumption, the end balance of the revenue account shall be zero, and the transfer to the development account may be higher than the actual amount.

marginal, ranging from zero to one million BDT. It is obvious that the development work of the Pourashavas is dependent on funds from the outside. The development income is composed of two sources: 1) grant from the GOB; and 2) funds from projects and the Bangladesh Municipal Development Fund (BMDF). The former is called block grant, and its large portion is disbursed under the Annual Development Programme. In comparison to required budget to address development needs, the block grant is far less sufficient, ranging from BDT 4.8 million to 11 million. It is reasonable to conclude that project-based funds are indispensable for development investment in Pourashavas.

The ratios of Pourashavas' own revenue income to their total income remain not more than 50%, except for Sreepur Pourashava. This demonstrates financial dependency of the Pourashavas on funds allocated from the outsides. The ratios of the development expenditure to the total expenditure range from 48% to 67%. The ratios of the development expenditure to the revenue expenditure, which indicate administrative efficiency, vary significantly between 50% and 200%.

				(Un	it: 1,000 BDT)	
Description	Mymensingh	Sreepur ^{1, 2}	Poushuram	Gouripur	Nandail	
Revenue Account						
Carried over from previous year	-3,429	0	637	103	2,212	
Revenue income	101,502	76,367	7,399	5,274	5,130	
Revenue expenditure	105,666	19,053	6,913	4,284	6,473	
Transfer to Development Account	0	57,314	1,000	411	0	
Revenue account balance	-7,593	0	122	681	869	
Development Account						
Carried over from previous year	58,080	27,713	2,367	80	3,155	
Transfer from Revenue Account	0	57,314	1,000	411	0	
Development income	136,145	6,700	10,808	8,900	4,800	
Grant from GOB	11,000	6,700	6,300	8,900	4,800	
Fund from projects/ BMDF	125,145	0	4,508	0	0	
Development expenditure	156,215	38,096	13,381	6,529	5,927	
Development account balance	38,011	53,632	794	2,861	2,028	
Total (Revenue + Development)						
Carried over from previous year	54,652	27,713	3,003	182	5,367	
Total income	237,647	83,067	18,207	14,174	9,930	
Total expenditure	261,881	57,149	20,295	10,813	12,401	
Total balance	30,418	53,632	916	3,543	2,897	
Own revenue income/ total income (%)	42%	92%	40%	36%	50%	
Development expenditure/ total expenditure (%)	60%	67%	66%	60%	48%	
Development expenditure/ revenue expenditure (%)	148%	200%	194%	152%	50%	

Table A10-2 Overall income and expenditure of revenue account and development account

Source: Survey team based on financial statements of the Pourashavas

Note: The figures are actual income and expenditure of FY10/11, except for the figures of Gouripur Pourashava, which are of FY09/10. 1. Sreepur Pourashava does not separate but mix the revenue account and the development account. For the sake of analysis, the survey team regarded budget left from the two accounts as the end balance of the development account. Due to this assumption, the end balance of the revenue account shall be zero, and transfer from the revenue to the development account tends to be higher than actual figure. 2. Financial statements of Sreepur Pourashavas were found to have substantial inconsistency. The figures of the Pourashava need careful interpretation.

Composition of the revenue income is shown in Table A10-3. The most part of the revenue income arises from: 1) holding tax and rates; 2) other taxes and rates; 3) and lease and rent of assets. According to the Pourashava Act, Pourashavas are entitled to impose taxes, rates, and fees (Section 89 and 3rd Schedule). Other taxes and rates include transfer tax of immovable properties, building construction tax, tax on profession and business, and so on.

							(U	nit: 1,000	BDT)
Item	Mymensing	singh Sreepur		Pous	Poushuram		Nandail		our
Holding tax and rates	39,847 39	9% 10,1	34 13%	929	13%	1,271	24%	839	16%
Other taxes and rates	42,577 42	2% 56,5	37 74%	2,709	37%	1,281	24%	2,053	40%
Fees	1,229	1% 8	46 1%	52	1%	771	15%	105	2%
Lease/ rent of assets	9,776 10	0% 6,2	60 8%	3,157	43%	1,595	30%	1,872	36%
Revenue grant from government	2,091 2	2%	25 0%	182	2%	209	4%	142	3%
Others	5,982 (5% 2,5	66 3%	371	5%	147	3%	119	2%
Total	101,502 100	0% 76,3	67 100%	7,399	100%	5,274	100%	5,130	100%

Table A10-3 Composition of revenue income

Source: Survey team based on financial statements provided by Pourashavas

Note: The figures are actual income and expenditure of FY10/11, except for the figures of Gouripur Pourashava, which are of FY09/10.

Holding tax is one of the main income sources for Pourashavas, as shown in Table A10-3. In the name of holding tax, Pourashavas levy the following taxes and rates on houses and buildings: 1) house and building tax (7%); 2) conservancy rate (7%); streetlight rate (3%); and water rate (10%).³

Demand and collection of the holding tax are presented in Table A10-4.⁴ In Sreepur and Poushuram Pourashavas, the collection rate of the holding tax from current demand reached above 90% in FY11/12, although it was only 59% and 41% in FY09/10. Besides, the two Pourashavas have increased the collected amount of the holding tax by BDT 8.9 and 2.3 million, respectively, in the last two years. This remarkable improvement may be attributable to the governance improvement program under UGIIP-2. As for the other Pourashavas, which are not supported by UGIIP-2, Nandail Pourashava has been weak in taxation, while Gouripur Pourashava has performed it fairly well. In Nandail Pourashava, the collection rate from current demand has been not more than 50%, and the amount of the current demand has remained the same at BDT 1.607 million for the last three years, which indicates poor valuation of the tax demand. It is rational to say that Nandail Pourashava has enough space to raise holding tax. For instance, the Pourashava would gain additional BDT 0.8 million if it attained the collection rate of 80%.

							(Unit: 1	,000 BDT)	
Description	Sreep	our	Poushi	Poushuram		lail	Gouripur		
	Current	Arrear	Current	Arrear	Current	Arrear	Current	Arrear	
FY09/10									
Demand	3,719	7,476	700	2,500	1,607	3,627	1,400	2,771	
Collection	2,178	2,329	287	229	283	1,645	371	900	
Collection rate	59%	31%	41%	9%	18%	45%	27%	32%	
FY10/11									
Demand	10,025	6,689	750	2,684	1,607	3,306	1,500	2,899	
Collection	6,114	1,533	215	714	801	439	674	1,162	
Collection rate	61%	23%	29%	27%	50%	13%	45%	40%	
FY11/12									
Demand	10,563	9,067	832	2,506	1,607	4,074	1,850	2,563	
Collection	9,683	3,723	786	2,101	504	1,000	1,435	1,427	
Collection rate	92%	41%	94%	84%	31%	25%	78%	56%	

Table A10-4 Demand and collection of holding tax

Source: Survey team based on interviews with Pourashavas

Note: The figures are actual income and expenditure of FY10/11, except for the figures of Gouripur Pourashava, which are of FY09/10.

The revenue expenditure is categorized into: 1) general establishment expenditure; 2) education expenditure; 3) health and sanitation expenditure; and 4) others. General establishment expenditure is

³ Pourashavas have authority to impose a maximum of the percentages in the parentheses against assessed values of houses and buildings.

⁴ Information on holding tax in Mymensingh Pourashava was not collected.

the core and indispensable cost that is generally required to manage and operate establishments. It includes staff salary, telephone bill, electricity bill, fuel, office equipment, and furniture. In the sample Pourashavas, the general establishment expenditure constitutes 44% to 83% of the overall revenue expenditure (Table A10-5). Personnel cost, i.e., staff salary and honorarium for elected representatives, makes up a substantial portion in the range from 25% to 72%.⁵

Health and sanitation expenditure is spent mainly on conservancy of the sanitary environment. It includes contract-based labor for cleaning (waste disposal, cleaning of roads and drains, etc.), waste disposal equipment, mosquito killing, and so forth. In the sample Pourashavas, the health and sanitation expenditure accounts for 6% to 25% of the total revenue expenditure. A substantial portion of the revenue expenditure is spent on the labor for cleaning.

Expenditure for repair and maintenance of infrastructures is marginal in the sample Pourashavas except Mymensingh Pourashava. It accounts for only 0-4%. However, this proportion is derived on the basis only of physical work and does not include operational cost such as cleaning, vehicles, and equipment.

Mymensingh Pourashava has loan liability to the BMDF. The annual repayment amounts to only BDT 0.3 million.

								(Un	it: 1,000	OBDT)
Items	Mymensingh		Sree	Sreepur		uram	Nan	dail	Gouripur	
General establishment	47,615	45%	8,405	44%	3,813	55%	3,149	73%	5,350	83%
Honorarium of mayor and councilors	3,855	4%	1,708	9%	598	9%	277	6%	1,767	27%
Staff salary	22,265	21%	6,537	34%	1,783	26%	2,747	64%	2,897	45%
Education	421	0%	41	0%	494	7%	0	0%	0	0%
Health and sanitation	26,942	25%	1,582	8%	550	8%	295	7%	389	6%
Labor for cleaning (waste collection, drain	18,417	17%	951	5%	512	7%	271	6%	371	6%
cleaning, road sweeping, etc.)										
Others	30,689	29%	9,026	47%	2,056	30%	840	20%	734	11%
Repair/ maintenance of infrastructure	24,484	23%	0	0%	16	0%	0	0%	285	4%
Payment to loan	322	0%	0	0%	0	0%	0	0%	0	0%
PRAP under UGIIP-2	0	0%	966	5%	141	2%	0	0%	0	0%
GAP under UGIIP-2	0	0%	3,382	18%	252	4%	0	0%	0	0%
Total	105,666	100%	19,053	100%	6,913	100%	4,284	100%	6,473	100%

Table A10-5 Composition of revenue expenditure

Source: Survey team based on financial statements provided by Pourashavas

Note: The figures are actual income and expenditure of FY10/11, except for the figures of Gouripur Pourashava, which are of FY09/10.

2 Financial internal rate of return on revenue-generating subprojects

Revenue-generating subprojects are defined as subprojects of developing infrastructures such as bus/truck terminals and markets that yield revenue for Pourashavas. As shown in Table A10-3, such infrastructures generate a significant amount of revenue. This fact indicates that revenue-generating subprojects potentially enhance financial soundness and sustainability.

Given the importance of revenue-generating infrastructures, the survey team conducted a brief analysis of financial internal rate of return (FIRR) on revenue-generating subprojects. The team investigated six revenue-generating infrastructures in the sample Pourashavas.

⁵ The Pourashavas under UGIIP-2, i.e., Mymensingh, Sreepur, and Poushuram Pourashavas, have smaller proportion of staff salary in comparison with the other Pourashavas. This may be because UGIIP-2 subsidized staff salary in FY10/11.

(1) Setting for estimation of FIRR

The survey team calculated FIRR on the six revenue-generating infrastructures based on the following information and assumptions:

Case 1: Bus terminal in Gouripur Pourashava

Gouripur Pourashava gains income from a bus terminal. Investment in the bus terminal in the last decade was made in FY2006/07 to construct Herringbone Bond Brick (HBB) floor. There is no special facility such as a terminal building. The information on the bus terminal is summarized in Table A10-6.

Table A10-6 Summary of a bus terminal in Gouripur Pourashava

Physical conditions : Size is one acre. Floor is	made of HBB.	There is no spec	ial structure.	
Investment cost : BDT 500,000 in FY2006	/07 to construct	HBB floor.		
Mode of management : Leased out to private con	npany/person			
Income/ expenditure	FY09/10	FY10/11	FY11/12	Average
Annual revenue (BDT)	95,625	177,270	227,128	166,674
Annual O&M cost (labor, electricity, etc.) (BDT)	30.000	32.000	45.000	35.667

Source: Survey team based on information provided by Gouripur Pourashava

The assumptions made by the survey team for estimating FIRR on the bus terminal are as follows:

- Inflation rate is 10%. Discount rate is 12%
- The construction period is one year.
- Investment cost in FY06/07 is converted into FY10/11 price, BDT 732,050. The conversion factor per year is the inflation rate, 10%.
- Annual revenue remains stable for 20 years in real term. It is BDT 166,674 at FY10/11 price, which is derived from the average annual revenue from FY09/10 to FY11/12.
- Annual O&M cost remains constant for 20 years in real term. It is BDT 35,667 at FY10/11 price, which is equivalent to the average O&M cost for the three years.

Case 2: Market in Gouripur Pourashava (Bazar)

There is a bazar, named Gouripur Bazar, in Gouripur Pourashava. As far as relevant officials of the Pourashava knew, physical invest in the bazar was made only in FY2001/02. The information on the bazar is shown in Table A10-7.

Table A10-7 Summary of Gouripur Bazar

Physical conditions : The size is 1 km x 90 m.													
Investment cost : BDT 350,000 in FY2001/	02												
Mode of management : Leased out to private company/person													
Income/ expenditure	FY09/10	FY10/11	FY11/12	Average									
Income/ expenditure	1 1 0 / 10	1 1 10/11	1 1 11/12	interage									
Annual revenue (BDT)	1,843,468	2,580,114	3,192,155	2,538,579									

Source: Survey team based on information provided by Gouripur Pourashavas

The assumptions for estimating FIRR on Gouripur Bazar are the following:

- Inflation rate is 10%. Discount rate is 12%.
- The construction period is one year.
- Investment cost in FY01/02 is converted into FY10/11 price, BDT 825,281. The conversion factor per year is the inflation rate, i.e., 10%.

- Annual revenue is constant at BDT 2,538,579 at FY10/11 price. This amount is equivalent to • the average annual revenue from FY09/10 to FY11/12.
- Annual O&M cost is stable at BDT 145,667 at FY10/11 price. This is equivalent to the average • O&M cost for the last three years.

Case 3: Market in Gouripur Pourashava (Supermarket)

There is a small supermarket building in Gouripur Bazar. It was constructed in FY2011/12. Inside the market, there are 18 shops. The information on the bazar is shown in Table A10-8.

Table A10-8 Summary of a supermarket in Gouripur Bazar

Physical conditions : The supermarket has 18 sh The roof is tin. The walls a	1 /	ich is 10 feet x 1	5 feet. The floor	r is concrete.
Investment cost : BDT 700,000 in FY2011/1				
Mode of management : Directly managed by the Po	ourashava.			
Income/ expenditure	FY09/10	FY10/11	FY11/12	FY12/13
Annual revenue (BDT)	-	-	-	108,000
Annual O&M cost (labor, electricity, etc.) (BDT)	-	-	-	10,000

Annual O&M cost (labor, electricity, etc.) (BDT)

Source: Survey team based on information provided by Gouripur Pourashava Note: Annual O&M cost in FY12/13 is based on the estimation by the Pourashava.

The assumptions for calculating FIRR on the supermarket is the following:

- Inflation rate is 10%. Discount rate is 12%. •
- The construction period is one year. •
- Annual revenue and O&M cost will remain stable at BDT 108,000 and BDT 10,000 of • FY12/13 price for 20 years.

Case 4: Market in Nandail Pourashava (Old Bazar)

Nandail Pourashava raises income from a bazar named Nandail Bazar. The bazar has existed for a long time, and therefore is called old bazar. The Pourashava has records of investment in the bazar since FY1998/99.

Table A10-9 Summary of Nandail Old Bazar

Physical conditions: The size is 1 km x 250 m.Investment cost: BDT 547,294 in FY98/99;BDT 866,254 in FY05/06;BDT 1,207,500 in FY09/1Mode of management: Leased out to private comp	BDT 228,500 ii 0	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Income/ expenditure	FY09/10	FY10/11	FY11/12	Average
Annual revenue (BDT)	1,160,500	1,495,000	1,209,000	1,288,167
Annual O&M cost (labor, electricity, etc.) (BDT)	230,000	230,000	230,000	230,000

Source: Survey team based on information provided by Nandail Pourashava

Note: It was confirmed with Nandail Pourashava that the investment cost was different from repair work.

FIRR on Nandail Bazar is calculated based on the following assumptions:

- Inflation rate is 10%. Discount rate is 12%.
- It is assumed that all investment is made in FY10/11 to reproduce the same conditions of the • bazar as it actually exists. The total amount of the investment is assumed to be equivalent to the residual value in FY10/11 of the investment from FY98/99 to FY09/10. It is estimated at BDT 3,955,239 based on depreciation rate of 5% and inflation rate of 10%. (The value is assumed to depreciate by 5% per annum proportionally, which means that the economic life is 20 years.)

The construction takes one year.

• Annual revenue and O&M cost remain constant at BDT 1,288,167 and BDT 230,000 at FY10/11 price for 20 years.

Case 5: Market in Nandail Pourashava (New Bazar)

There is another bazar in Nandail Pourashava, named Nandail New Bazar.

Table A10-10 Summary of Nandail New Bazar

Physical conditions : The size is 1.39 acre.				
Investment cost : BDT 145,453 in FY98/99;	BDT 313,320 in	FY99/00; BDT	154,762 in FY0	00/11;
BDT 50,000 in FY03/04; E	BDT 146,422 in 1	FY08/09		
Mode of management : Leased out to private comp	any/person			
Income/ expenditure	FY09/10	FY10/11	FY11/12	Average
Annual revenue (BDT)	80,000	132,300	133,600	115,300
Annual O&M cost (labor, electricity, etc.) (BDT)	75,000	75,000	75,000	75,000

Source: Survey team based on information provided by Nandail Pourashava

The assumptions for the FIRR on Nandail New Bazar are as follows:

- Inflation rate is 10%. Discount rate is 12%.
- It is assumed that all investment is made in FY10/11 to reproduce the same conditions of the bazar as it actually exists. The total amount of the investment is assumed to be equivalent to the residual value in FY10/11 of the investment from FY98/99 to FY08/09. It is estimated at BDT 1,168,090 based on depreciation rate of 5% and inflation rate of 10%. The construction takes one year.
- Annual revenue and O&M cost are constant at BDT 115,300 and BDT 75,000 at FY10/11 price for 20 years.

Case 6: Bus terminal in Mymensingh Pourashava

Mymensingh Pourashava gains revenue from a bus terminal. Significant investment was made in FY2009/10, which constructed a building, toilets, a ticket counter, etc. Before the investment, there was no such structure, although the same space had functioned as a terminal.

Physical conditions : The size is 0.295 acre.				
Investment cost : BDT 13,975,111 in FY09/1	0			
Mode of management : Leased out to private comp	any/person			
In a small and and it was	EV/00/10	EV/10/11	EV11/10	•
Income/ expenditure	FY09/10	FY10/11	FY11/12	Average
Annual revenue (BDT)	525,000	FY10/11 530,000	661,000	Average 572,000

Table A10-11 Summary of Nandail New Bazar

Source: Survey team based on information provided by Mymensingh Pourashava

The following assumptions were made to estimate FIRR on the bus terminal:

- Inflation rate is 10%. Discount rate is 12%.
- Investment cost in FY09/10 is converted into FY10/11 price, BDT 15,372,622. The conversion factor per year is the inflation rate, 10%.
- Annual revenue and O&M cost remain constant at BDT 572,000 and BDT 84,000 of FY10/11 price for 20 years.

(2) FIRR of revenue-generating subprojects

The estimated FIRR is presented in Table A10-12. To check the sensitivity of the FIRR to economic life and O&M cost, the FIRR was estimated based on three different lengths of economic life, i.e. 10, 15, and 20 years, and double O&M cost. As a result, the FIRR ranges from 5.6% to 328.9% in the case of 20-year economic life; from 1.1% to 328.9% in the case of 15-year economic life; from -8.5% to 328.9% in the case of 10-year economic life. Under the assumption of the double O&M cost, it ranges from 4.0% to 309.5% in the case of 20-year economic life. These results indicate that revenue-generating subprojects are likely to produce substantial return especially when Pourashavas are able to access financial sources at low interest rate.

Table A10-12 FIRR of revenue-generating infrastructure improvement

					(Unit: BDT)
Items	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Investment cost	732,050	825,281	770,000	3,955,239	1,168,090	15,372,622
Annual revenue	166,674	2,538,579	108,000	1,288,167	115,300	572,000
Annual O&M cost	35,667	145,667	10,000	230,000	75,000	84,000
NPV (In case of 20-year economic life)	1,448,169	38,997,564	860,916	13,654,778	-497,417	-7,251,325
FIRR						
Economic life: 20 years	28.9%	328.9%	22.3%	39.2%	6.4%	5.6%
Economic life: 15 years	27.5%	328.9%	20.4%	38.5%	2.0%	1.1%
Economic life: 10 years	23.5%	328.9%	15.1%	35.9%	-7.4%	-8.5%
FIRR in case of double annual O&M	l cost					
Economic life: 20 years	22.7%	309.5%	20.6%	32.5%	n.a ¹	4.0%
Economic life: 15 years	20.8%	309.5%	18.4%	31.4%	n.a ¹	-0.0%
Economic life: 10 years	15.6%	309.5%	12.8%	28.0%	n.a ¹	-10.9%
Source: Survey team						

Note: Investment cost, annual revenue, and annual O&M cost in each case are denominated in price of the same year. 1. As the net revenue is minus, FIRR cannot be calculated.

Legend: NPV=Net Present Value

3 Financial impact of revenue-generating subproject financed by loan

It is certain that Component 2 of the NRRDLGIP will significantly affect the financial status of Pourashavas. For instance, Pourashavas will need to increase expenditure for O&M of infrastructures developed under Subcomponent 2-1, and gain income from revenue-generating subprojects, and repay loan if the financing package of the NRRDLGIP includes loan.

Since such financial impact is expected to be substantial, the survey team carried out estimation of the impact by projecting income and expenditure for 20 years in order to assess financial sustainability and soundness after the commencement of Component 2. The projections were made based on the following assumptions:

- 1) Average financial status of the three category-B and C Pourashavas, i.e., Poushuram, Gouripur, and Nandail, is used as a financial status of the first year.
- 2) Total investment under Component 2 amounts to BDT 100 million. BDT 50 million is invested in the first year, while the remaining 50 million is in the third year.
- 3) BDT 20 million in total is invested in revenue-generating subprojects in the first year. Revenue of the subprojects arises from the following years for 20 years.
- 4) Annual O&M cost for infrastructures invested under Component 2 is 1% of the investment cost.
- 5) Annual revenue from revenue-generating subprojects is 7% of the investment cost. Based on this assumption and the assumption 4) above, the FIRR is 12%.
- 6) Collection rate of the holding tax is increased to 80% in the second year. Then, it reaches 90%

in the fourth year.

- 7) Other taxes, rates, and fees are increased by 10% from the second year and by 20% from the fourth year in comparison with in the first year.
- 8) Investment fund of NRRDLGIP for non-revenue-generating subprojects consists entirely of grant, whereas fund for revenue-generating subprojects consists of loan (30%) and grant (70%). The interest rate is 4%. The repayment period is 20 years including a five-year grace period.
- 9) The figures specified in the above assumptions are denominated in real term, specifically at the constant price of the first year.
- 10) Inflation rate is 10%.

The first assumption is reasonable because the NRRDLGIP will target the same categories of Pourashavas. The fifth assumption is conservative, as FIRR and the ratio of annual revenue to investment cost are likely to exceed 12% and 7%, respectively. The sixth and seventh assumptions reflect the governance and capacity improvement activities undertaken in Subcomponent 2-2.

Table A10-13 presents the result of the projection. As surplus in the revenue account remains around 1 million over the whole period, it is reasonable to say that financial soundness is ensured in this case. In addition, the soundness is substantiated by the fact that the maximum amount of loan repayment is only 350,000 BDT at constant price of the first year and its ratio to revenue income is only 1-4%. Although the peak ratio of loan balance to revenue income, 70%, in FY2 is not low, the financial soundness is not in doubt because of the long-term repayment period and a marginal amount of loan repayment.

To check the robustness of this analysis, the survey team carried out a sensitivity analysis by making the financial projections under different assumptions. The differences in the assumptions relate to: 1) loan ratio among investment fund in Case 1; 2) loan period in Case 2; 3) interest rate in Case 3; 4) annual revenue ratio in Case 4; and 5) O&M cost in Case 5. The result of the sensitivity analysis is shown in Table A10-14.

Case 1 reduces the loan ratio from 30% to 20%. Needless to say, the financial status gets better than the original case, as the initial loan balance and loan repayment become half. In Case 2, where the loan period is shortened from 20 years to 10 years, the revenue surplus is kept more than 0.5 million, although the ratio of the repayment doubles approximately. In Case 3, where the interest rate is increased to 6%, the revenue surplus is not much different from the original case. This reflects the fact that the amount of the repayment is marginal in the original case. Even in Case 4, where annual revenue ratio declines from 7% to 3.5%, the revenue is still in surplus. In Case 5, however, the surplus becomes minus in FY7 and FY8, although the deficit is only BDT 53,000 and BDT 12,000. These results of the sensitivity analysis indicate the robustness of the implication that Pourashavas are able to sustain financial soundness after the commencement of Component 2 even when investment funds include loan.

Table A10-13 Projected financial status

Total investment in revenue-generating subprojects: 20 m	· ·							Annual revenue ratio :7%													
		Loan a	amount :	6 millio	on		Inte	rest rate	e :4%			Æ	Annual (0&M co	ost ratic) :1%			(Unit:	1,000 BI	DT)
Item	FY1	FY2	FY3	FY4	FY5	FY6	FY7	FY8	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20 F	FY21
Investment in non-revenue-generating subprojects	30,000	0	50,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Investment in revenue-generating subprojects	20,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenue income (at FY1 price)																					
Base revenue income	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934	5,934 5	5,934
Incremental holding tax	0	276	276	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391	391
Incremental other taxes, rates, and fee	0	232	232	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465
Revenue from revenue-generating subprojects	0	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400 1	,400
Total	5,934	7,842	7,842	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190	8,190 8	3,190
Revenue expenditure (at FY1 price)																					
Base revenue expenditure	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890 5	5,890
Incremental O&M cost	0	500	500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000 1	,000
Repayment of loan principal	0	0	0	0	0	0	226	205	187	170	154	140	127	116	105	96	87	79	72	65	59
Payment of interest	0	218	198	180	164	149	126	107	90	75	62	50	41	32	25	19	14	9	6	3	0
Total	5,890	6,608	6,589	7,071	7,054	7,039	7,242	7,202	7,166	7,135	7,106	7,081	7,058	7,039	7,021	7,005	6,991	6,979	6,968	6,958 6	5,950
Surplus in revenue account (at FY1 price)	44	1,234	1,254	1,119	1,136	1,151	947	988	1,024	1,055	1,084	1,109	1,131	1,151	1,169	1,185	1,199	1,211	1,222	1,232 1	,240
Loan balance (at current price)	0	6,000	6,000	6,000	6,000	6,000	5,600	5,200	4,800	4,400	4,000	3,600	3,200	2,800	2,400	2,000	1,600	1,200	800	400	0
Loan balance (at FY1 price)	0	5,455	4,959	4,508	4,098	3,726	3,161	2,668	2,239	1,866	1,542	1,262	1,020	811	632	479	348	237	144	65	0
Loan repayment (principal & interest) / revenue income	0.0%	2.8%	2.5%	2.2%	2.0%	1.8%	4.3%	3.8%	3.4%	3.0%	2.6%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	1.1%	0.9%	0.8%	0.7%
Loan balance / revenue income	0.0%	69.6%	63.2%	55.0%	50.0%	45.5%	38.6%	32.6%	27.3%	22.8%	18.8%	15.4%	12.4%	9.9%	7.7%	5.8%	4.3%	2.9%	1.8%	0.8%	0.0%

Table A10-14 Projected financial status under different assumptions

Case 1: Loan ratio is reduced to 20%.

Total investment in revenue-generating subprojects: 20 mi	llion Loa	Loan ratio :20%				Loan period :20 years					A	nnual r	evenue	ratio	:7%				
	Loa	n amount	:4 milli	on		Inte	rest rate	:4%			Æ	Annual C)&M co	ost ratio	:1%			(Unit:	1,000 BDT)
Item	FY1 FY	2 FY3	FY4	FY5	FY6	FY7	FY8	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20 FY21
Surplus (FY1 price)	44 1,30	7 1,320	1,179	1,190	1,200	1,065	1,092	1,115	1,137	1,156	1,172	1,187	1,201	1,213	1,223	1,232	1,241	1,248	1,254 1,260
Loan repayment (principal & interest) / revenue income	0.0% 1.99	6 1.7%	1.5%	1.3%	1.2%	2.9%	2.5%	2.2%	2.0%	1.8%	1.6%	1.4%	1.2%	1.1%	0.9%	0.8%	0.7%	0.6%	0.6% 0.5%
Balance of loan / revenue income	0.0% 46.49	6 42.2%	36.7%	33.4%	30.3%	25.7%	21.7%	18.2%	15.2%	12.5%	10.3%	8.3%	6.6%	5.1%	3.9%	2.8%	1.9%	1.2%	0.5% 0.0%

Case 2: Loan period is shortened to 10 years including 2-year grace period.

Total investment in revenue-generating subprojects: 20 mi	llion	Loan ratio :30%					Loan period :10 years					A	nnual r	evenue	ratio	:7%					
		Loan a	mount :	6 millio	on		Inte	rest rate	e :4%			Α	Annual C)&M cc	st ratio	:1%			(Unit:	1,000 BDT	ĩ)
Item	FY1	FY2	FY3	FY4	FY5	FY6	FY7	FY8	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20 FY2	21
Surplus (FY1 price)	44	1,234	1,254	578	664	741	809	869	922	969	1,011	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300 1,30	00
Loan repayment (principal & interest) / revenue income	0.0%	2.8%	2.5%	8.8%	7.8%	6.8%	6.0%	5.3%	4.6%	4.0%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0% 0.0)%
Balance of loan / revenue income	0.0% 6	69.6%	63.2%	48.2%	37.5%	28.4%	20.7%	14.1%	8.5%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0% 0.0)%

Case 3: Interest rate is increased to 6%.

Case 3: Interest rate is increased to 6%.	illion	Loopr	atia	30%			Lag		4 .20				Annual r		ratio	·7%						Annexe
Total investment in revenue-generating subprojects: 20 mi	lillon	Loan r Loan a	ano . mount :		on			n perio rest rate				-	Annual (.,,,,			(Unit:	1,000 E	BDT)	s of
Item	FY1	FY2	FY3	FY4	FY5	FY6	FY7	FY8	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	÷
Surplus (FY1 price)	44	1,070	1,105	984	1,013	1,039	853	908	956	999	1,038	1,071	1,101	1,127	1,150	1,170	1,188	1,204	1,218	1,230	1,240	าลไ
Loan repayment (principal & interest) / revenue income	0.0%	4.9%	4.4%	3.9%	3.5%	3.2%	5.5%	4.8%	4.2%	3.7%	3.2%	2.8%	2.4%	2.1%	1.8%	1.6%	1.4%	1.2%	1.0%	0.9%	0.7%	Re
Balance of loan / revenue income	0.0%	69.6%	63.2%	55.0%	50.0%	45.5%	38.6%	32.6%	27.3%	22.8%	18.8%	15.4%	12.4%	9.9%	7.7%	5.8%	4.3%	2.9%	1.8%	0.8%	0.0%	pol
																						ㅋ

Case 4: Annual revenue ratio declines to 3.5%.

Total investment in revenue-generating subprojects: 20 mi	llion	Loan r	atio :	Loan period :20 years				Α	nnual r	evenue	ratio	:3.5%									
		Loan a	imount :	6 millio	on		Inte	rest rate	e :4%			Α	Annual ()&M co	st ratio	:1%			(Unit:	1,000 E	BDT)
Item	FY1	FY2	FY3	FY4	FY5	FY6	FY7	FY8	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Surplus (FY1 price)	44	534	554	419	436	451	247	288	324	355	384	409	431	451	469	485	499	511	522	532	540
Loan repayment (principal & interest) / revenue income	0.0%	3.1%	2.8%	2.4%	2.2%	2.0%	4.7%	4.2%	3.7%	3.3%	2.9%	2.5%	2.2%	2.0%	1.7%	1.5%	1.3%	1.2%	1.0%	0.9%	0.8%
Balance of loan / revenue income	0.0%	76.4%	69.4%	60.2%	54.7%	49.7%	42.2%	35.6%	29.9%	24.9%	20.6%	16.8%	13.6%	10.8%	8.4%	6.4%	4.6%	3.2%	1.9%	0.9%	0.0%

Case 5: Annual O&M ratio is increased to 2%.

Total investment in revenue-generating subprojects: 20 mi	llion	Loan r	atio :	30%			Loa	n perio	1:20 y	<i>ears</i>		A	nnual r	evenue	ratio	:7%					
		Loan a	mount :	6 millio	on		Inte	rest rate	:4%			A	nnual C	% M co	st ratio	:2%			(Unit:	1,000 1	3DT)
Item	FY1	FY2	FY3	FY4	FY5	FY6	FY7	FY8	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Surplus (FY1 price)	44	734	754	119	136	151	-53	-12	24	55	84	109	131	151	169	185	199	211	222	232	240
Loan repayment (principal & interest) / revenue income	0.0%	2.8%	2.5%	2.2%	2.0%	1.8%	4.3%	3.8%	3.4%	3.0%	2.6%	2.3%	2.1%	1.8%	1.6%	1.4%	1.2%	1.1%	0.9%	0.8%	0.7%
Balance of loan / revenue income	0.0% 6	59.6%	63.2%	55.0%	50.0%	45.5%	38.6%	32.6%	27.3%	22.8%	18.8%	15.4%	12.4%	9.9%	7.7%	5.8%	4.3%	2.9%	1.8%	0.8%	0.0%

4 Loan financing terms to Pourashavas in other projects

Pourashavas have received development funds from government initiatives and donor-supported projects. One of the most well-known funds is the GOB's block grant under the Annual Development Programme, which has been continuously distributed to every Pourashava. The foremost donor-supported projects providing funds for Pourashavas in the last decade are the Urban Governance and Infrastructure Improvement Projects (UGIIP-1&2), Municipal Services Project (MSP), and Secondary Towns Integrated Flood Protection Project (STIFPP). The funds are usually 100% granted to Pourashavas, but UGIIP-2 and MSP adopted financing of grant and loan. This section below describes the loan financing terms of UGIIP-2, MSP, and the BMDF.

UGIIP-2

In case of revenue-generating subprojects, project costs are financed 50% by loan and 50% by grant for Category-A Pourashavas; and 30% by loan and 70% by grant for category-B and C Pourashavas. Subprojects of water supply, bus and truck terminals, and municipal markets are considered as revenue generating subprojects. All other types of subprojects are funded 100% by grant. Subsidiary loan agreements on the loan portion of the fund are made between the Finance Division of the Ministry of Finance (MOF) and Pourashavas.⁶ They stipulate financial obligations of Pourashavas. An example of the subsidiary loan agreements is given in the attachment to this annex. The interest rate is 4% per annum. The loan period is 20 years including a five-year grace period.

MSP

Different from UGIIP-2, MSP requires contribution from Pourashavas for financing of all types of subprojects. Category-A, B, and C Pourashavas need to contribute 10%, 5%, and 3% of the project cost in cash or kind. The rest of the cost is financed by fund from MSP. In case of revenue-generating subprojects, at least 50% of total project cost is financed by loan, and the rest is by grant and the contribution. In case of other types of subprojects, at maximum 90% is funded by grant, and the rest is by loan and constitution. The loan period is at longest 20 years including a grace period up to five years. The fund from MSP is disbursed through the BMDF. Pourashavas and the BMDF enter into subproject agreements.

BMDF

The BMDF is a government-owned company, which was established in the 2002 with substantial support of MSP and the World Bank. It aims at providing funds to urban local bodies including Pourashavas on a rational basis using transparent and objective criteria. It is administratively under the MOF, and the Board of Directors is chaired by the Secretary of the LGD. With regard to the financing terms, the BMDF levies service charges equivalent to 1.5% of the total subproject cost. The financing composition is loan (13.5%), grant (76.5%), and Pourashavas' contribution (10%). The interest rate is 5% per annum. The maximum loan period is ten years including a one-year grace period.

⁶ In addition to the subsidiary loan agreements, which govern the loan portion, Pourashavas and the LGED enter into subproject agreements. The agreements define scopes of subprojects and responsibilities of Pourashava and the LGED.

Item	UGIIP-2	MSP	BMDF
Financing composition Revenue-generating projects (e.g. bus and truck terminals, markets, piped water supply)	Category-A Pourashavas: Loan (50%), Grant (50%) Category-B, C Pourashavas: Loan (30%), Grant (70%)	Category-A Pourashavas: Own Contribution (10%), Loan (at least 50%), Grant (the rest) Category-B Pourashava: Own Contribution (5%), Loan (at least 50%), Grant (the rest) Category-C Pourashava: Own Contribution (3%), Loan (at least 50%), Grant (the rest)	Own Contribution (10%), Loan (13.5%) Grant (76.5%)
Non revenue-generating projects	Grant (100%)	Category-A Pourashavas: Own Contribution (10%), Grant (up to 90%), Loan (the rest) Category-B Pourashava: Own Contribution (5%), Grant (up to 90%), Loan (the rest) Category-C Pourashava: Own Contribution (3%), Grant (up to 90%), Loan (the rest)	
Annual interest rate	4%	up to 9%	5%
Repayment period	20 years	up to 20 years	up to 10 years
Grace period	5 years	up to 5 years	1 year
Arrangement	Subsidiary loan agreements are made between Pourashavas and the Finance Division, MOF	Loan is disbursed through the BMDF. Subproject agreements are made between Pourashavas and the BMDF.	Agreements are made between the BMDF and Pourashavas.
Others		Service charge, 1.5% of total project cost, is levied.	Service charge, 1.5% of total project cost, is levied.

Table A10-15 Loan financing terms of UGIIP-2, MSP, and BMDF

Source: Survey team based on ADB(2008b, c), World Bank (1999), and a brochure of the BMDF

[Attachment to Annex 4-3]

SUBSIDIARY LOAN AGREEMENT (SLA)

The agreement made this...(date)...2012

BETWEEN

the Government of the People's Republic of Bangladesh acting through the Finance Division, Ministry of Finance (herein, after referred to as the Government)

AND

The XXXX Pourashava established under the previous Pourashava Ordinance 1977 which has been abundant land newly enacted Local Government (Pourashava) Act, 2009 (Part-II, Chapter-1, Section-3), which expression shall, unless the context otherwise admits, include its successor and assignees.

IN ACCORDANCE WITH

The Loan Agreement (Second Urban Governance and Infrastructure Improvement (Sector) Project (UGIIP-II)) Loan No. 2462 BAN (SF), hereinafter referred to as the Loan Agreement No. 2462 BAN, (SF) signed by THE GOVERNMENT OF THE PEOPLE'S REBUBLIC OF BANGLADESH AND THE ASIAN DEVELOPMENT BANK ON 04 NOVEMBER 2008.

Whereas the Government has entered into the Loan Agreement referred to above (the Loan Agreement No. 2462 BAN (SF) with the Asian Development Bank (hereinafter referred to as the Bank) of Loan for financing part of the project entitled "Second Urban Governance and Infrastructure Improvement (Sector) Project (UGIIP-II) (hereinafter/referred to as the Project) for an amount equivalent SDR 55,445,000.

AND WHEREAS, XXXX Pourashava being "A" Category status, has been entrusted with the execution of part of the project with a portion of the finance to be made available to it by the Government;

AND WHEREAS, section 3.01 (a) of the Loan Agreement No. 2462 BAN (SF) envisages that the Government shall relent to XXXX Pourashava a portion of the proceeds amounting Tk. 15,782,620.00 (50% of the sub-project investment cost to be relent as per provision of the Loan Agreement) of the Loan allocated, for the project under a Subsidiary Loan Agreement upon terms and conditions mentioned in the Loan agreement.

NOW, THEREFORE, the parties hereto agree as follows:

ARTICLE-I DEFINITION

Secion-1.01: WHEREVER used in this Subsidiary Loan Agreement, unless the context otherwise requires, the several terms defined in the Loam, Agreement No. 2462 BAN (SF), will respective meanings therein set forth.

ARTICLE-II CREDIT AND RELENDING TERMS

[Attachment to Annex 4-3]

Settion-2.01: An amount equivalent to SDR 55,445,000 (Tk. 59,655.90 lakh) of the proceeds of the Loan allocated for the purpose of the project facilities under the project shall be provided to the XXXX Pourashava by the Government on the following terms:

Section-2.02: An amount equivalent to Tk. 15,782,620.00 (50% of the sub-project investment cost) for the purpose of Kitchen Market cum Multipurpose Building specified in detail in schedule-1 hereto, where amount shall bear interest at the rate of 4% (four percent) per annum the unpaid principal amount.

Section 2.03: The Loan proceeds re-lend under this Agreement shall be repaid by XXXX Pourashava in equivalent local currency in 15 (fifteen) equal annual installments, due on 30th, June of each year just after 5 (five) years grace period from the date of first disbursement under the agreement.

Section 2.04: XXXX Pourashava shall pay the interest to the government in local currency with principle amount due as per Repayment Schedule-1,

Section 2.05: The foreign exchange risk shall be born by the Government. The portion of the loan proceeds under the Loan Agreement relent to XXXX Pourashava) under this Subsidiary Loan Agreement and the interest thereon shall be repayable by XXXX Pourashava to the Government in Taka Compelled the exchange rates prevailing on the date of disbursements.

Section 2.06: The provisions of this agreement shall continue to be in force and effects not withstanding any cancelation or suspension of the rights of the G6vernment under the Loan Agreement No. 2462 BAN (SF), until the Loan proceeds relent under the Agreement, the interest thereon and other charged accrued thereto are fully repaid.

ARTICLE-III GENERAL PROVISION

Section 3.01: XXXX Pourashava shall cause to be done everything on its dart to enable the Government to fulfill its obligations under the Loan Agreement No.2462 BAN (SF).

Section 3.02: XXXX Pourashava shall cause to be done everything on its part to adopt and implement Urban Governance Improvement Action Program (UGIAP) on Financial Accountability and Sustainability attached as Schedule-2 hereto.

Section 3.03: The Government shall cause to be done everything reasonable to enable the Sunamgonj Pourashava to fulfill its obligations under this Subsidiary Loan Agreement.

Section 3.04: XXXX Pourashava shall be bound by the provisions of the Loan Agreement No. 2462 BAN (SF), and the project Agreement in executing the project and shall safeguard the interest of both the Government and the Bank.

<u>ARTICLE-IV</u> EFFECTIVE DATE; DATE OF TERMINATION

Section 4.01: This Subsidiary Loan Agreement shall come into force from the date of disbursement of fund for the Sub-Project Agreements namely of XXXX Pourashava.

Section -4.02: This agreement and all obligations set forth herein shall terminate and cease to have any legal effect if and when the entire principal amount and all interest and other charges which accrue thereon shall have been paid in full by XXXX Pourashava.

[Attachment to Annex 4-3]

Section -4.03: Any Changes modification and amendments of this Subsidiary Loan Agreement shall be agreed upon in writing between parties thereto.

IN WITNESS WHEREOF, the parties thereto, acting through their representatives duly authorized, have signed this Agreement in the respective names as on the day and year above written.

For and on behalf of the XXXX Pourashava For and on behalf of the Government of the people's republic of Bangladesh

[Attachment to Annex 4-3]

REPAYMENT SCHEDULE-1

SECOND URBAN GOVERNMENT AND INFRASTRUCTUR IMPROVEMENT (SECTOR) PROJECT (UGIIP-II)

XXXX POURASHAVA

LOAN REPAYMENT FOR THE SUB-PROJECT KITCHEN MARKET CUM MULTIPURPOSE BUILDING

Relending Amount Tk. 15,782,620.00

Grace Period	:	2012-2016
Initial Investment Tk	:	31,565,240.00
Interest Rate Tk/Year	;	4%
Grace Period	:	5 (Five) years
Total Investment + interest Tk	:	23,989,582.40

SI	Falling Date	Opening Total	Principal	Closing Total	Interest	Interest on	Principal
No		Not	Fallen Due	Not Due	Rate	Total Principal	Interest
		Due-Principal		Principal		Outstanding	
1	2	3	4	5	6	7	8 (4+7)
1	30-Jun-2017	15,782,620.00	1,052,174.67	14,730,445.33	4%	3,787,828.80	4,840,003.47
2	30-Jun-2018	14,730,445.33	1,052,174.67	13,678,270.67	4%	589,217.81	1,641,392.48
3	30-Jun-2019	13,678,270.67	1,052,174.67	12,626,096.00	4%	547,130.83	1,599,305.50
4	30-Jun-2020	12,626,096.00	1,052,174.67	11,573,921.33	4%	505,043.84	1,557,218.51
5	30-Jun-2021	11,573,921.33	1,052,174.67	10,521,746.67	4%	462,956.85	1,515,131.52
6	30-Jun-2022	10,521,746.67	1,052,174.67	9,469,572.00	4%	420,869.87	1,473,044.54
7	30-Jun-2023	9,469,572.00	1,052,174.67	8,417,397.33	4%	378,782.88	1,430,957.55
8	30-Jun-2024	8,417,937.33	1,052,174.67	7,365,222.67	4%	336,695.89	1,388,870.56
9	30-Jun-2025	7,365,222.67	1,052,174.67	6,313,048.00	4%	294,608.91	1,346,783.58
10	30-Jun-2026	6,313,048.00	1,052,174.67	5,260,873.33	4%	252,521.92	1,304,696.59
11	30-Jun-2027	5,260,873.33	1,052,174.67	4,208,698.67	4%	210,434.93	1,262,609.60
12	30-Jun-2028	4,208,698.67	1,052,174.67	3,156,524.00	4%	168,347.95	1,220,522.62
13	30-Jun-2029	3,156,524.00	1,052,174.67	2,104,349.33	4%	126,260.96	1,178,435.63
14	30-Jun-2030	2,104,349.33	1,052,174.67	1,052,174.67	4%	84,173.97	1,136,348.64
15	30-Jun-2031	10,520,174.67	1,052,174.67	0.00	4%	42,086.99	1,094,261.66
	Total		15,782,620.00	15,782,620.00		8206962.40	8,206,962.40

Annex 11

Draft Urban Governance Improvement Action Program

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1.	Proposed Urban Governance Improvement Action Program for Phase 1	. 2
2.	Proposed Urban Governance Improvement Action Program for Phase 2	. 3

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Table A11-2 Proposed UGIAP for Phase 2	. 3

1. Proposed Urban Governance Improvement Action Program for Phase 1

The proposed Urban Governance Improvement Action Program (UGIAP) for Phase 1 is presented in Table A11-1.

Activities	Performance criteria
The Town Level Coordination Committee (TLCC)	At least three meetings are held and minutes are
is established and operating according to the	prepared.
guidelines.	
The Ward Level Coordination Committees	At least two meetings are held and minutes are prepared
(WLCCs) are established and operating according	at all WLCCs of the Pourashava.
to the guidelines.	
A gender committee headed by the Female Ward	At least two meetings are held, and the minutes are
Councilor is formed.	prepared.
The planning unit is established in Pourashava.	The planning unit is established, and a Pourashava staff
	member in charge of urban planning is assigned.
The Pourashava Development Plan is prepared,	Complied with
including poverty reduction strategy and gender	
strategy.	
Interim assessment of holding tax is carried out.	Complied with

Table A11-1 Proposed U	GIAP for Phase 1
------------------------	------------------

2. Proposed Urban Governance Improvement Action Program for Phase 2

The proposed UGIAP for Phase 2 is presented in Table A11-2.

Activities	Performance criteria					
	Fully satisfactory	Partially satisfactory				
A. Citizen awareness and participation						
 Citizen charter is approved by the Town Level Coordination Committee (TLCC) and displayed at the Pourashava office. 	Citizen charter is approved by TLCC, and displayed at the Pourashava Office.	Citizen charter is approved by TLCC, and displayed at the Pourashava Office.				
 Citizen report cards are approved by TLCC, and surveys using the cards are conducted. 	Citizen report cards are approved by TLCC and distributed. Surveys using the cards are completed and the result is disclosed at least twice.	Citizen report cards are approved by TLCC and distributed. The first survey using the cards is completed, and the result is disclosed at least once.				
3. Grievance redress cell is established with clear terms of reference and is functional.	Complied with	Complied with				
4. TLCC and WLCC meetings are held in accordance with the relevant act and circular.	Quarterly meetings are held and minutes are prepared.	Quarterly meetings are held and minutes are prepared.				
5. Budget proposal is prepared based on the comparison with the budget and actual outlays in the previous year, displayed at the Pourashava office, and discussed at TLCC.	Complied with	Complied with				
6. Mass- communication cell is established. Campaign plan is developed and implemented as planned.	Complied with	Complied with				
B. Improvement of urban planning process	S					
1. Base-map is verified, and land-use plan is prepared.	Complied with	Complied with				
 Operation and maintenance (O&M) plans for subprojects, including budget requirement, are approved by TLCC together with subproject applications, and the required O&M budget is earmarked in the budget. 	O&M plans for subprojects are approved at the preparation of subproject application, and required O&M budget is fully allocated.	O&M plans for subprojects are approved at the preparation of subproject application, and at least 50% of the required O&M budget is allocated.				
3. A Pourashava staff assigned to the Planning Unit participates in the training program on urban planning methodology.	Pourashava staff participating in the training program understands more than 80% of the contents.	Pourashava staff participating in the training program understands more than 60% of the contents.				
4. Annual review of PDP is conducted at least once, and approved by TLCC.	Complied with	Complied with				
C. Women's participation 1. Gender action plan (GAP) is prepared and included in PDP.	GAP is prepared and endorsed by TLCC. GAP is fully implemented, and quarterly progress reports are prepared.	GAP is prepared and endorsed by TLCC. Implementation is commenced and the first quarterly progress report is presented to TLCC.				

Table A11-2 Proposed UGIAP for Phase 2

Activities	Performance criteria					
	Fully satisfactory	Partially satisfactory				
2. Budget to implement GAP is identified and approved.	Complied with	Complied with				
D. Integration of the urban poor	1	1				
1. Slum improvement committees (SICs) are formed in targeted slums.	SICs are established in all slum areas targeted by the Project.	SICs are established in 50% of the slum areas targeted by the Project.				
2. Poverty Reduction Action Plan (PRAP) is prepared and included in PDP.	PRAP is prepared and endorsed by TLCC and is fully implemented, and quarterly progress reports are prepared.	PRAP is prepared and endorsed by TLCC, with implementation commenced, and the first quarterly progress report is prepared.				
3. Budget to implement PRAP is identified and approved.	Complied with	Complied with				
E. Financial accountability and sustainabil		1				
 Computerized accounting system is introduced, and computer-generated accounting reports are produced. 	Complied with	Complied with				
 Computerized tax record system is introduced and computer-generated bills are produced. 	Complied with	Complied with				
3. Financial statements are prepared, and account and audit standing committee carries out audit within 3 months after the closure of the fiscal year.	Complied with	Complied with				
4. Interim tax assessment is carried out annually and tax collection is increased.	Interim tax assessment is carried out and collection increased by more than 10% annually (up to 80% collection efficiency)	Interim tax assessment is carried out and collection increased by more than 5% annually (up to 80% collection efficiency)				
5. Non-tax own revenue sources are increased at least by inflation rate.	Complied with	Complied with				
6. All debts due the Government of Bangladesh and other entities are fully repaid according to the schedule, and the ratio of debt servicing to annual revenue receipts remains less than 25%.	Complied with	Complied with				
7. All outstanding bills older than three months, including electricity and telephone, are paid in full.	Complied with	Schedule of paying outstanding bills are agreed with creditors, and payments are commenced as per the schedule.				
F. Administrative capacity						
1. Adequate staff structure (according to size and needs) is developed with detailed job descriptions to enable Pourashava to effectively undertake its current and future obligations.	Complied with	Complied with				
2. Elected representatives, Pourashava officials, and concerned citizens actively participate in training programs.	Complied with	Complied with				

Activities	Performance criteria		
Acuvities	Fully satisfactory	Partially satisfactory	
3. Progress reports on Urban Governance Improvement Action Program implementation and other activities are submitted on time to the Project Management Office.	Complied with	Complied with	
4. Standing committees are established and/or activated.	Complied with	Complied with	
5. Monitoring and evaluation by regional LGED on the progress and quality of physical works is ensured.	Complied with	Complied with	
6. Activities for e-governance are initiated.	Complied with	Complied with	

Annex 12

Draft Performance Indicators for the Urban Governance Improvement Action Program

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1. Proposed Urban Governance Improvement Action Program for Phase 1

The proposed performance indicators for the Urban Governance Improvement Action Program (UGIAP) for Phase 1 are presented in Table A12-1.

Activities	Performance criteria	Performance indicator
The Town Level Coordination Committee (TLCC) is established and operating according to the guidelines.	At least three meetings are held and minutes are prepared.	 Date of establishment of TLCC TOR of TLCC List of male and female members of TLCC Dates of meetings Minutes of each meeting
The Ward Level Coordination Committees (WLCCs) are established and operating according to the guidelines.	At least two meetings are held and minutes are prepared at all WLCCs of the Pourashava.	 Date of establishment of WLCCs TOR of WLCCs List of male and female members of WLCCs Dates of meetings Minutes of each meeting
A gender committee headed by the Female Ward Councilor is formed.	At least two meetings are held, and the minutes are prepared.	 Date of establishment of GC List of members of GC Dates of meetings Minutes of each meeting
The planning unit is established in Pourashava.	The planning unit is established, and a Pourashava staff member in charge of urban planning is assigned.	 Date of establishment of Planning Unit List of members of Planning Unit List of Pourashava staff assigned to Planning Unit TOR of Planning Unit Job descriptions of each member
The Pourashava Development Plan is prepared, including poverty reduction strategy and gender strategy.	Complied with	 Date of formation of core group Number and dates of FGDs held Date of approval of PDP by TLCC Date of approval of PDP by Council Text of PDP, including poverty reduction action plan (PRAP) and gender action plan (GAP)
Interim assessment of holding tax is carried out.	Complied with	 Work plan of interim tax assessment Number of holdings assessed monthly Amount of assessed tax monthly Latest amount of total tax collected monthly

 Table A12-1 Proposed UGIAP and performance indicators for Phase 1

Source: Survey team

2. Proposed Urban Governance Improvement Action Program for Phase 2

The proposed performance indicators for the UGIAP for Phase 2 are presented in Table A12-2.

A ativitian	Performance criteria		Douformores indicator
Activities	Fully satisfactory	Partially satisfactory	Performance indicator
A. Citizen awareness and p		1	
1. Citizen charter is approved by the Town Level Coordination Committee (TLCC) and displayed at the Pourashava office.	Citizen charter is approved by TLCC, and displayed at the Pourashava Office.	Citizen charter is approved by TLCC, and displayed at the Pourashava Office.	 Whether CC was prepared as per the Pourashava Act 2009 and the UGIAP guidelines Date of approval of CC by TLCC Date of display of CC at Pourashava office
2. Citizen report cards are approved by TLCC, and surveys using the cards are conducted.	Citizen report cards are approved by TLCC and distributed. Surveys using the cards are completed and the result is disclosed at least twice.	Citizen report cards are approved by TLCC and distributed. The first survey using the cards is completed, and the result is disclosed at least once.	 Date of approval of CRC by TLCC Dates of start of surveys Dates of ends of surveys Number of surveyed households Dates of 1st & 2nd disclosures of survey results
3. Grievance redress cell is established with clear terms of reference and is functional.	Complied with	Complied with	 Date of establishment of GRC Whether complaint box is fixed at convenient place Whether monthly meetings of GRC are held, and dates of meetings Number of grievances received Number of grievances addressed in GRC meetings
4. TLCC and WLCC meetings are held in accordance with the relevant act and circular.	Quarterly meetings are held and minutes are prepared.	Quarterly meetings are held and minutes are prepared.	 Date of TLCC meetings Minutes of meetings of TLCC Dates of WLCC meetings Minutes of meetings of WLCCs
5. Budget proposal is prepared based on the comparison with the budget and actual outlays in the previous year, displayed at the Pourashava office, and discussed at TLCC.	Complied with	Complied with	 Date of preparation of proposed budget Date of disclosure of the proposed budget to citizens Date of approval of the budget by TLCC Date of approval of the budget by Council
6. Mass- communication cell is established. Campaign plan is developed and implemented as planned.	Complied with	Complied with	 Date of establishment of MCC Dates of MCC meetings Whether campaign plan is developed as per the Project guidelines, and implemented

B. Improvement of urban p	lanning process		
 Base-map is verified, and land-use plan is prepared. 	Complied with	Complied with	 Date of approval of base map Date of completion of land-use plan preparation Date of approval of land-use plan by TLCC
2. Operation and maintenance (O&M) plans for subprojects, including budget requirement, are approved by TLCC together with subproject applications, and the required O&M budget is earmarked in the budget.	O&M plans for subprojects are approved at the preparation of subproject application, and required O&M budget is fully allocated.	O&M plans for subprojects are approved at the preparation of subproject application, and at least 50% of the required O&M budget is allocated.	 Whether requirement of O&M budget is identified Amount of budget requirement for O&M Date of approval of O&M plans Whether O&M plans are included in PDP Text of O&M plan Amount of approved O&M budget Rate of increased O&M budget
3. A Pourashava staff assigned to the Planning Unit participates in the training program on urban planning methodology.	Pourashava staff participating in the training program understands more than 80% of the contents.	Pourashava staff participating in the training program understands more than 60% of the contents.	 List of training programs that Pourashava staff participated Results of tests on the training programs
4. Annual review of PDP is conducted at least once, and approved by TLCC.	Complied with	Complied with	 Date of approval of annual review by TLCC Date of approval of annual review by Council
C. Women's participation			
1. Gender action plan (GAP) is prepared and included in PDP.	GAP is prepared and endorsed by TLCC. GAP is fully implemented, and quarterly progress reports are prepared.	GAP is prepared and endorsed by TLCC. Implementation is commenced and the first quarterly progress report is presented to TLCC.	 Date of approval of GAP by TLCC Text of GAP Whether all activities listed in GAP are implemented Dates of submission of quarterly progress reports Dates of presentation of quarterly progress reports to TLCC
2. Budget to implement GAP is identified and approved.	Complied with	Complied with	 Amount of budget for GAP implementation Dates of approval of budget for GAP by Council

D. Integration of the urban	poor		
1. Slum improvement committees (SICs) are formed in targeted slums.	SICs are established in all slum areas targeted by the Project.	SICs are established in 50% of the slum areas targeted by the Project.	 Date of selection of targeted slums List of targeted slums with description of boundaries Number of targeted slums Date of completion of baseline survey Number of households covered by baseline survey Number of primary groups Number of households covered by primary groups Dates of formation of SICs Number of male and female members of total SICs
2. Poverty Reduction Action Plan (PRAP) is prepared and included in PDP.	PRAP is prepared and endorsed by TLCC and is fully implemented, and quarterly progress reports are prepared.	PRAP is prepared and endorsed by TLCC, with implementation commenced, and the first quarterly progress report is prepared.	 Date of approval of PRAP by TLCC Text of PRAP Number of poor families indentified as per PRAP guidelines Whether all activities listed in PRAP are implemented Dates of submission of quarterly progress reports Dates of presentation of quarterly progress reports to TLCC
3. Budget to implement PRAP is identified and approved.	Complied with	Complied with	Amount of budget for PRAP implementationDates of approval of budget for
E. Financial accountability	and sustainability		PRAP by Council
1. Computerized accounting system is introduced, and computer-generated accounting reports are produced.	Complied with	Complied with	 Date of receiving basic computer training Date of installation of computer Date of installation of software Dates of printing of computer-generated accounting reports, and reporting to mayor Whether computer-generated accounting reports are produced on a regular basis
2. Computerized tax record system is introduced and computer-generated bills are produced.	Complied with	Complied with	 On a regular basis Date of receiving basic computer training Date of installation of computer Date of installation of software Dates of printing of tax bill showing tax demand

3. Financial statements are prepared, and account and audit standing committee carries out audit within 3 months after the closure of the fiscal year.	Complied with	Complied with	 Date of preparation of financial statement Text of financial statement Date of completion of audit Text of account and audit report
4. Interim tax assessment is carried out annually and tax collection is increased.	Interim tax assessment is carried out and collection increased by more than 10% annually (up to 80% collection efficiency)	Interim tax assessment is carried out and collection increased by more than 5% annually (up to 80% collection efficiency)	 Number of holdings covered by interim tax assessment Amount of tax increased by interim tax assessment Target amount of tax collection Amount of collected tax Collection efficiency Date of tax collection report presented to Council
5. Non-tax own revenue sources are increased at least by inflation rate.	Complied with	Complied with	 Target amount of collection of non-tax own revenue Amount of collected non-tax own revenue
6. All debts due the Government of Bangladesh and other entities are fully repaid according to the schedule, and the ratio of debt servicing to annual revenue receipts remains less than 25%.	Complied with	Complied with	 Total amount of debts Amount of debts repaid Ratio of repaid amount to total annual revenue income
7. All outstanding bills older than three months, including electricity and telephone, are paid in full.	Complied with	Schedule of paying outstanding bills is agreed with creditors, and payments are commenced as per the schedule.	 Amount of electricity and telephone bill for each month Amount of arrear electricity and telephone bill Paid amount of electricity and telephone bill for each month < if outstanding bills are too huge > Whether schedule of paying outstanding bills is agreed with creditors Whether payments are commenced as per the agreed ashedule

schedule

F. Administrative capacity	T	-	
1. Adequate staff structure (according to size and needs) is developed with detailed job descriptions to enable Pourashava to effectively undertake its current and future obligations.	Complied with	Complied with	 Developed adequate staff structure considering size and needs Detailed job descriptions of Pourashava staff members
2. Elected representatives, Pourashava officials, and concerned citizens actively participate in training programs.	Complied with	Complied with	 Number of targeted trainees Number of trainees who participated in training programs List of training programs that concerned persons participated
3. Progress reports on Urban Governance Improvement Action Program implementation and other activities are submitted on time to the Project Management Office.	Complied with	Complied with	• Dates of submission of progress reports to PMO
 Standing committees are established and/or activated. 	Complied with	Complied with	 Date of establishment of 10 standing committees stipulated in the Pourashava Act 2009 Date of establishment of additional standing committees, including NGO coordination; disaster management; women development; poverty reduction and slum improvement; health, water and sanitation; or solid waste management
5. Monitoring and evaluation by regional LGED on the progress and quality of physical works is ensured.	Complied with	Complied with	Dates of monitoring and evaluation by regional LGED on physical works
6. Activities for e-governance are initiated.	Complied with	Complied with	 Whether awareness building on e-governance among Pourashava staff is initiated Whether staff members in charge of e-governance are assigned Whether staff members in charge of e-governance receive training Date of opening Pourashava website Whether CC and other information are disclosed in the website

Source: Survey Team

Annex 13

Concept note for technical cooperation for local governance improvement

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1 Background

Pourashavas, which are local government institutions (LGIs) in urban areas, have limited capacity to properly deliver public services to their citizens. Some mayors and councilors, if not all, appear to have only limited knowledge of their legal mandates. Human resources in Pourashavas are generally insufficient to fully perform their assigned functions, and key posts such as Pourashava Engineer, Secretary, and Health Officer are left vacant in many Pourashavas, particularly in Categories B and C. In terms of financial resources, Pourashavas' own source revenues are also limited, and many investments and development projects are conducted without adequate planning. Although there are considerable needs for basic infrastructure development in Pourashavas, basic infrastructures remain in insufficient conditions. In addition, Pourashava leaders tend to focus on short-term physical investments with paying insufficient attention to long-term vision and regional perspectives of socioeconomic development. This often leads to inadequately planned investments, and eventually to ineffective use of their limited funds. In other words, a planned investment based on long-term vision and regional development perspectives is essential to ensure effective use of limited resources.

International donor agencies such as the ADB and World Bank provide significant assistance in infrastructure and capacity development of the urban sector in Bangladesh. The UNDP, KfW, GIZ, and DfID have also assisted the urban sector. Those agencies focus on infrastructure development, urban governance improvement, and urban poverty reduction.

JICA also plans to initiate a new initiative to support the urban sector, as a major component of its proposed Northern Region Rural Development and Local Governance Improvement Project (NRRDLGIP). Component 2 of the NRRDLGIP will support Pourashavas to conduct governance improvement activities and provide financial assistance in basic infrastructure development through Project Management Office (PMO) to be established in the LGED.

However, the urban sector projects pose several challenges. The most critical issue pertains to how to ensure sustainability; more specifically, operation and maintenance (O&M) of basic infrastructures, and sustaining the improved level of local governance. Indeed, previous initiatives in the urban sector recognized and emphasized the importance of sustainability. To ensure sustainability, it is necessary to establish an institutional mechanism in the government, the LGD and the LGED in particular, to support Pourashavas' continuous public service improvement through enhancing the capacities of Pourashava staff members.

The LGED is currently assisting Pourashava's capacity development under several urban sector projects. The Urban Management Unit is responsible for the urban sector in the LGED. It is composed of revenue staff members, but they are in charge of only engineering work. There is a unit working on capacity development of Pourashavas, i.e., the Municipal Support Unit (MSU) or Urban Management Support Unit (UMSU), within the LGED, however, the MSU/UMSU is a project-based organization, which is not institutionalized in the LGED. Thus sustainability may not be fully ensured. On the other hand, the LGED acknowledges the need for long-term support to Pourashavas, and has expressed its willingness that the capacity development activities of the MSU/UMSU will be expanded to the whole nation. The capacity of the government, in particular the LGED, will therefore needs to be strengthened to ensure that the LGED has sufficient capacity to support Pourashavas to continue and sustain improvement of public service delivery.

In addition, the LGED requested JICA to provide technical assistance in preparing and updating implementing guidelines and manuals on urban governance for the NRRDLGIP. Such guidelines and manuals were already prepared by the MSU/UMSU under the previous urban sector projects such as UGIIP-2, but they need to be adjusted to the characteristics and capacities of Category B and C Pourashavas to be supported by the Project. However, such adjustment and updating may be difficult

under the NRRDLGIP since the capacity development activities under the NRRDLGIP will focus primarily on the facilitation of the UGIAP activities. Furthermore, if the technical assistance can prepare and update such guidelines and manuals in advance of the commencement of the NRRDLGIP, this will contribute to smooth and effective launch of the NRRDLGIP.

On the basis of the above, a technical assistance (TA) project, which will complement the NRRDLGIP, is proposed to enhance sustainable public service delivery improvement of Pourashavas. More specifically, it aims to enhance institutional capacity of the government with a focus on the LGED to support Pourashavas. The major activities include: 1) enhancement of LGED's capacity in terms of both the institutional and individual levels; 2) capacity development of pilot Pourashavas in key areas; 3) development of training modules for Pourashava capacity development; and 4) horizontal learning of good practices regarding good governance including exposure visits. The TA project is expected to contribute to effective implementation of the NRRDLGIP, and increase in the sustainability of the achievements of the NRRDLGIP.

2 Outline of the proposed technical cooperation project

2.1 Title of the project

Project for Capacity Development to Improve Pourashavas' Public Service Delivery

2.2 Project period

Five years (July 2013 to June 2018)

2.3 Project area

All Pourashavas in Bangladesh with a focus on the project area of the NRRDLGIP

Note: Pilot Pourashavas will be selected from either target Pourashavas of the NRRDLGIP or the other Pourashavas in the target area of the NRRDLGIP.

2.4 Overall goal

Capacity of Pourashavas to deliver public services is improved.

2.5 Project purpose

Institutional capacity of the LGD and LGED is strengthened to support capacity development of Pourashavas for public service delivery improvements in infrastructure project implementation and good governance.

2.6 Output

- 1) Organizational structure of the government, with a focus on the LGED urban wing, to support Pourashavas' capacity development is strengthened.
- 2) Capacity of the LGED urban wing to support Pourashavas' capacity development is enhanced.
- 3) Training modules for Pourashavas to enhance their public service delivery capacities are established in key areas.
- 4) Pilot activities to improve Pourashavas' capacity in key areas are effectively carried out in selected Pourashavas with the support of the LGED urban wing.
- 5) Horizontal learning program in relation to public service delivery of Pourashavas is enhanced.

2.7 Activity

- 1-1) Review the current situation and challenges of the government, i.e., the LGD and the LGED, regarding support for Pourashavas' capacity development.
- 1-2) Propose institutional setup of the LGD and the LGED to support Pourashavas.
- 1-3) Institutionalize the organizational structure of the LGED urban wing to enable it to continuously support the capacity development of Pourashava engineers and other staff.
- 2-1) Conduct training needs assessment for the LGED urban wing in relation to capacity development of Pourashavas.
- 2-2) Identify key areas of capacity development of the LGED urban wing based on the assessment results of 2-1).
- 2-3) Conduct training of trainers (TOT) for the officials of the LGED urban wing in charge of supporting Pourashavas' public service delivery.
- 3-1) Identify key areas of capacity development of Pourashavas, including but not limited to development planning, improved urban planning, financial and administrative management, public investment management, engineering work implementation and quality control, community participation, poverty reduction, gender equity, and information and communication technology (ICT), through the capacity development needs assessment in pilot Pourashavas.
- 3-2) Review relevant guidelines and manuals related to the public service delivery improvement of Pourashavas prepared under the other urban sector projects including the Second Urban Governance Improvement and Infrastructure Project (UGIIP-2).
- 3-3) Elaborate draft training modules, including guidelines and manuals, to support Pourashavas' capacity development in the key areas in collaboration with the LGD and NILG. The guidelines and manuals to be utilized under the NRRDLGIP, including the preparation guidelines for Pourashava Development Plan (PDP), the implementation guidelines for the Urban Governance Improvement Action Program (UGIAP) and other relevant guidelines and manuals, will be prepared in consultation with the MSU/UMSU and other relevant officials. The other guidelines related to the operation of the MSU/UMSU will be considered.
- 3-4) Elaborate guidelines for a role model of socioeconomic development plan of the Category B and C Pourashavas based on lessons learned from activities in pilot Pourashavas.
- 3-5) Revise the draft training modules based on the experiences and impacts observed in pilot Pourashavas.
- 3-6) Share the draft modules with the other stakeholders in the LGD and the LGED, and get their feedback, and obtain approval of the LGD and the LGED.
- 4-1) Select pilot Pourashavas from Category B and C Pourashavas in the Project area of the NRRDLGIP, and identify pilot areas and activities to be supported by the LGED urban wing.
- 4-2) Conduct baseline surveys on public service delivery in pilot Pourashavas.
- 4-3) Provide on-the-job training (OJT) for pilot Pourashavas, utilizing the draft training modules developed in 3-3), in relation to the pilot areas of each pilot Pourashava. The pilot areas may include support to the establishment and operation of TLCC and WLCCs, pilot-based facilitation of Community-Based Organization (CBO) activities, preparation and review of PDP, formulation and implementation of poverty reduction action plan, administrative capacity development, total quality management, public financial management, and implementation and quality control of engineering works.
- 5-1) Identify and document good practices regarding public service delivery of LGIs including both Pourashavas and Unions mainly in the Project area of the NRRDLGIP.
- 5-2) Conduct training for enhancing Pourashavas' capacity, including mayors and councilors, to document good practices and demonstrate them.

5-3) Facilitate the mutual learning of good practices of public service delivery of Pourashavas through the Horizontal Learning Center (HLC).

2.8 Target group

Target group: Staff of the LGED assigned in the urban wing, and mayors, councilors, and staff of pilot Pourashavas

Beneficiary: All Pourashava staff in Bangladesh, and residents in Pourashavas

2.9 Counterpart agencies and other relevant agencies

1) Counterpart agency

- Local Government Division (LGD), Ministry of Local Government and Rural Development, and Cooperatives (MLGRD&C)
- Local Government Engineering Department (LGED), MLGRD&C
- **Note**: The LGD will supervise the overall activities and provide technical advice to the LGED through the Joint Coordination Committee and the thematic working groups¹, while the LGED is supposed to be an executing agency that will implement respective activities. The Project Director of the TA project will be appointed from the LGED.

2) Other collaborative agency

- National Institute for Local Government (NILG), MLGRD&C
- **Note**: The NILG will be involved in developing and updating the training modules for Pourashavas on basic governance improvement.

2.10 Input

1) International consultants:

- Chief advisor/ Development planning
- Local governance/ Public financial management
- Urban planning
- Infrastructure engineering and quality control
- Community participation
- Training module development and monitoring

2) Local consultants:

- Baseline survey in sample Pourashavas
 - OJT support to Pourashavas in key areas
 - Governance improvement expert
 - Financial management expert
 - Urban planning expert
 - Engineering work and quality control expert
 - Community development expert
 - ICT expert
 - Training module preparation and monitoring expert
- Support to facilitate the horizontal learning program among Pourashavas

¹ Under the TA project, sectoral working groups in good governance and infrastructure development will be formed to ensure smooth and effective coordination among key stakeholders at the practical level. The LGD will chair the governance-related working group whilst the LGED will lead the infrastructure-related working group.

3 Points to consider

The primary purpose of the TA project is to enhance the institutional capacity of the government with a focus on the urban wing of the LGED to support Pourashavas, although the TA project will include some pilot activities that will directly contribute to the NRRDLGIP. Therefore, under the TA project, the LGED, under the supervision of the LGD, will tackle capacity development of the staff members of the LGED, and strengthen its institutional capacity.

The TA project will start at least about a half year prior to the actual commencement of the activities of the NRRDLGIP, and end in the first half of phase 3 of the NRRDLGIP. At the very beginning of the TA project, the guidelines and manuals of previous relevant projects including the UGIIP-2 will be reviewed and refined so that they can be utilized for target Pourashavas under the NRRDLGIP. Based on the refined guidelines and manuals, pilot activities that enhance the UGIAP activities, including the formation of TLCC and WLCCs and preparation of PDP, will be supported by the TA project in pilot Pourashavas. This will contribute to the smooth and effective launching of the NRRDLGIP.

The refinement of relevant guidelines and manuals and their implementation in pilot Pourashavas are part of the development of the training modules for Pourashavas under the TA project. The refinement and pilot activities will, therefore, provide important feedback to the modules as well as an important input to the NRRDLGIP. It also should be noted that the relevant guidelines and manuals need to be prepared in Bengali so that Pourashava staff members can easily understand and implement them.

In addition to the refined guidelines and manuals, there is another contribution of the TA project to the NRRDLGIP. Governance improvement activities of non-NRRDLGIP Pourashavas will be facilitated and encouraged through the horizontal learning program and capacity development support to be provided by the TA project. A few of such Pourashavas that demonstrate remarkable achievements in governance improvement will be entitled to join the NRRDLGIP from its phase 3 and receive investment funds.

Some key UGIAP activities will be piloted in selected Pourashavas. Pilot activities may include but not be limited to support to 1) the establishment and effective operation of TLCC and WLCCs; 2) preparation and review of PDP; 3) formulation and implementation of poverty reduction action plan; 4) budget and account management including the collection of tax and other revenues; 5) infrastructure engineering and quality control; and 6) conceptualization of socioeconomic development models for Category B and C Pourashavas. The detailed pilot activities will be selected after the training and capacity development needs assessment.

Since the target of the NRRDLGIP is Category B and C Pourashava, the TA project will therefore focus on Category B and C Pourashavas as well. Since Category B and C Pourashavas have more rural characteristics than Category A Pourashavas, the formulation and operation process of TLCC and WLCCs, for example, may need to be adjusted. PDP may also need to be simplified according to the capacity of Category B and C Pourashavas.

In the latter part of the NRRDLGIP, i.e., FY 2017/18, the TA project may formulate guidelines for socioeconomic development model for Category B and C Pourashavas. The model will be elaborated based on the lessons learned of pilot activities of the TA project. In addition, those derived from phase 2 of the NRRDLGIP will also be taken into account if the timeframes of the TA project and the NRRDLGIP correspond. However, given the risk of delay in the progress of the NRRDLGIP, lessons from the NRRDLGIP should not be considered as prerequisite for the model development. In this respect, the progress of the NRRDLGIP should be considered as an "important assumption" of the Project Design Matrix (PDM) of the TA project.

The TA project and the NRRDLGIP should be harmonized to maximize the synergy between them. In this regard, the Project Design Matrix (PDM) of the TA project needs to be flexibly changed according to the progress and achievements of the NRRDLGIP. However, it should also be ensured that either one of them will not hamper the progress of the other.

Annex 14

LGED priorities for infrastructure investment

List of tables

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1 Introduction

The LGED has provided its lists of priorities for infrastructure investments under the NRRDLGIP, covering the following:

Rural:	Improvement of Upazila Roads (UZR)
	Improvement of Union Roads (UNR)
	Rehabilitation of RDP-21 Roads
	Improvement of Growth Center Markets
	Improvement of other Rural Markets

Urban: Paving of Roads Construction of Drains Construction of Bus Terminals

Table A14-1 summarizes the proposed investments.

Table A14-2 provides a breakdown by district of the different categories of proposed rural infrastructure investment.

Table A14-3 provides a breakdown by district of the different categories of proposed urban infrastructure investment.

Table A14-4 and Table A14-5 present information, by district, on the current condition of the UZR and UNR proposed for improvement.

2 Selection Process

The lists have been consolidated from priorities identified by the LGED staff in the Project Districts and Upazilas. For UZR and UNR, there are typically two subprojects per Upazila in each category. Guidance was given to the Districts and Upazilas to prioritize roads subprojects which:

- Have a higher length of unpaved road.
- Require fewer earthworks.
- Will not involve resettlement and compensation.
- Have fewer gaps.

Each LGED Upazila office ranked its proposed UZR and UNR, and in most cases the two highest ranked roads in each category have been proposed.

3 Categories of Infrastructure

Most of the infrastructure categories are clearly defined. However:

- It is possible that some of the rural Growth Center Markets proposed are located within Pourashava boundaries and should therefore be defined as urban, not rural.
- Road rehabilitation sub-projects are limited to roads that were originally improved under RDP-21 – the Third Rural Infrastructure Development Project (TRIDP) in Greater Rangpur, Dinajpur, Mymensingh and Jamalpur financed by the ADB plus JBIC/SIDA/IFAD which ended in FY 2005-2006. This approach was agreed at the first meeting between JICA and the LGED. However, in road asset management terms consideration may be given to selecting rehabilitation sub-projects based upon priority for re-establishing improved access rather than

by source of original funding.

• No ghat improvement subprojects have been proposed.

4 Costs

The LGED has prepared indicative preliminary cost estimates. Estimates will be refined during project preparation, but the methods used for the 'first' estimates are rational, and the results (in terms of unit costs for different categories of infrastructure) are generally realistic at current prices.

The total estimated cost of the LGED lists of priorities is about USD 490 million at base prices. Based on the information currently available, this is probably significantly higher than the envisaged financial scope of the NRRDLGIP, particularly since the total project cost will include capacity building, implementation costs, price escalation, contingencies, etc. However, the lists are an essential starting point for the selection of the project investment schemes, and it is very helpful to have them so early in the preparation survey.

5 Other Comments

There is substantial variation in the scale of proposed project investment among the 14 districts. This issue will be examined as part of the work on selection.

Note: This Annex was originally prepared by the International Consultants in early April 2012.

Component 1: Rural Infrastructure

				Cos	t	Unit	Cost
	No. of	Length	Structures		USD	Tk.	USD
	Schemes	(km)	(m)	Tk. Million	Million	Million	Million
UZR Improvement	209	1,815.0	7,418	18,105.6	226.3	9.98	0.125
UNR Improvement	235	1,757.5	5,686	11,040.2	138.0	6.28	0.079
Road Rehabilitation	96	802.2		2,406.7	30.1	3.00	0.038
Growth Centre Market	148			1,117.5	14.0	7.55	0.094
Rural Market	200			877.8	11.0	4.39	0.055
Sub-total Rural	888	4,374.7	13,104	33,547.8	419.3		

Component 2: Pourashava Infrastructure (28 Pourashavas)

Road Improvement		898.535	4,492.7	56.2	5.00	0.063
Drain Construction		262.29	734.4	9.2	2.80	0.035
Bus Terminal	25		500.0	6.3	20.00	0.250
Sub-total Urban			5,727.1	71.6		

Total NRRDLGIP

39,274.9 490.9

Exchange Rate: Tk. 80 = USD 1

	UZ	R Improve	ment	UN	R Improve	ment	Roa	d Rehabili	tation	GC M	larkets	Rural N	Aarkets		TOTAL	
	Number of roads	Total length (km)	Estimated cost (Tk mill)	Number of roads	Total length (km)	Estimated cost (Tk mill)	Number of roads	Rehab. length (km)	Estimated cost (Tk mill)	Number	Estimated cost (Tk mill)	Number	Estimated cost (Tk mill)	Number of sub- projects	Estimated cost (Tk mill)	Estimated cost (USD mill)
Dinajpur District	25	197.62	2040.90	26	248.71	1503.08	7	69.50	208.50	25	285.00	20	96.00	103	4133.49	51.67
Gaibandha District	11	103.29	936.75	14	87.94	500.79	12	101.87	305.62	10	45.00	12	45.00	59	1833.16	22.91
Kurigram District	9	63.90	614.06	17	116.69	682.50	2	14.00	42.00	14	117.00	14	75.00	56	1530.56	19.13
Lalmonirhat District	10	83.03	727.80	10	81.33	512.79	4	35.52	106.56	2	20.00	8	44.00	34	1411.15	17.64
Nilphamari District	12	101.93	992.57	12	92.05	646.35	7	35.19	105.57	1	0.40	10	24.50	42	1769.39	22.12
Panchagarh District	9	77.40	929.92	10	68.83	399.48	2	3.25	9.75	8	34.63	10	38.50	39	1412.28	17.65
Rangpur District	14	115.38	995.88	16	122.57	783.77	14	130.71	392.14	12	90.50	16	72.00	72	2334.28	29.18
Thakurgaon District	9	67.90	724.33	10	71.33	416.64	0	0.00	0.00	6	49.00	8	41.00	33	1230.97	15.39
Jamalpur District	14	122.12	1485.42	14	111.77	826.74	2	18.80	56.40	13	104.50	13	63.00	56	2536.06	31.70
Kishoreganj District	25	172.31	1304.33	27	161.25	968.67	15	85.13	255.39	14	109.50	25	122.00	106	2759.89	34.50
Mymensingh District	24	236.75	2302.05	24	190.27	1103.87	18	196.73	590.19	9	37.00	20	80.00	95	4113.12	51.41
Netrokona District	17	176.09	1870.62	20	138.42	1041.09	12	111.52	334.56	12	118.00	11	52.80	72	3417.07	42.71
Sherpur District	9	91.11	860.18	9	61.21	411.12	0	0.00	0.00	6	38.00	9	43.50	33	1352.80	16.91
Tangail District	21	207.02	2320.78	26	212.01	1243.29	0	0.00	0.00	16	69.00	24	80.50	87	3713.57	46.42
	209	1815.85	18105.59	235	1764.38	11040.19	95	802.23	2406.68	148	1117.53	200	877.80	887	33547.78	419.35

Table A14-2 LGED prioritized list of rural infrastructure subprojects

Exchange rate: Tk. 80 = USD 1

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	Number of Pourashava	Length of Roads to be paved (km)	Length of drain to be constructed	Number of bus terminals	Estimated cost (Tk mill)	Estimated cost (USD mill)
Dinajpur District	1	40	27.5	1	297.00	3.71
Gaibandha District	1	??	??	??	??	??
Kurigram District	1	40	3	1	228.40	2.86
Lalmonirhat District	0	0	0	0	0.00	0.00
Nilphamari District	2	108.5	27	2	658.10	8.23
Panchagarh District	1	31.9	5	1	193.50	2.42
Rangpur District	1	32.45	10	1	210.25	2.63
Thakurgaon District	4	177	14.02	4	1004.26	12.55
Jamalpur District	3	83.65	38	3	584.65	7.31
Kishoreganj District	5	153.83	52.9	5	1017.27	12.72
Mymensingh District	3	75.72	42.66	2	538.05	6.73
Netrokona District	2	36.3	6.5	1	219.70	2.75
Sherpur District	2	53.2	12.71	2	341.59	4.27
Tangail District	2	65.985	23	2	434.33	5.43
	28	898.54	262.29	25.00	5727.09	71.59

Table A14-3 LGED prioritized list of Pourashava subprojects

Exchange Rate Tk. 80 = USD 1

	Number	Total length	5	Surface Type	wise break-up		Length of	Length of	Total span	Total span	Estimated	Estimated
	of UZR	(km)	Earthen (km)	Flexible pavement BC (km)	Brick pavement WBM/HBB/B FS (km)	Rigid pavement CC/RCC (km)	road to be paved (km)	road to be upgraded (km)	of bridge to be constructed (m)	of bridge to be rehabilitated (m)	cost (Tk mill)	cost (USD mill)
Dinajpur District	25	197.62	127.50	70.12	0.00	0.00	131.20	66.42	498	171	2040.90	25.51
Gaibandha District	11	103.29	60.30	42.99	0.00	0.00	60.30	42.99	121	16	936.75	11.71
Kurigram District	9	63.90	37.12	26.78	0.00	0.00	37.12	26.78	175	30	614.06	7.68
Lalmonirhat District	10	83.03	49.45	33.49	0.00	0.00	49.46	33.57	0	0	727.80	9.10
Nilphamari District	12	101.93	68.66	33.27	0.00	0.00	68.66	33.27	42	77	992.57	12.41
Panchagarh District	9	77.40	52.87	24.53	0.00	0.00	49.67	27.73	662	82	929.92	11.62
Rangpur District	14	115.38	58.76	56.62	0.00	0.00	58.76	56.62	173	41	995.88	12.45
Thakurgaon District	9	67.90	51.64	15.88	0.39	0.00	51.64	16.27	47	85	724.33	9.05
Jamalpur District	14	122.12	64.58	50.64	7.85	0.00	64.58	57.54	1601	0	1485.42	18.57
Kishoreganj District	25	172.31	60.33	99.15	12.83	0.00	60.33	111.98	285	157	1304.33	16.30
Mymensingh District	24	236.75	144.29	81.74	10.71	0.00	144.29	92.46	598	72	2302.05	28.78
Netrokona District	17	176.09	105.16	61.46	5.84	2.14	105.16	70.93	857	226	1870.62	23.38
Sherpur District	9	91.11	51.39	37.67	2.05	0.00	51.39	39.72	280	2	860.18	10.75
Tangail District	21	207.02	144.55	57.62	4.65	0.00	144.55	62.47	1121	0	2320.78	29.01
	209	1815.85	1076.60	691.96	44.32	2.14	1077.11	738.74	6459	959	18105.59	226.32

Table A14-4 LGED Prioritized list of Upazila roads

Exchange rate: Tk. 80 = USD 1

	Number	Total		Surface Type	e wise break-up		Length of	Length of	Total span	Total span of	Estimated	Estimated
	of UNR	length	Earthen	Flexible	Brick	Rigid	road to be	road to be	of bridge to	bridge to be	cost (Tk	cost (USD
		(km)	(km)	pavement	pavement	pavement	paved (km)	upgraded	be	rehabilitated	mill.)	mill.)
				BC (km)	WBM/HBB/B	CC/RCC		(km)	constructed	(m)		
					FS (km)	(km)			(m)			
Dinajpur District	26	248.71	213.95	34.21	0.55	0.00	213.95	34.76	319	65	1503.08	18.79
Gaibandha District	14	87.94	72.44	15.50	0.00	0.00	72.44	15.50	61	5	500.79	6.26
Kurigram District	17	116.69	64.01	52.62	0.00	0.00	65.01	52.68	345	103	682.50	8.53
Lalmonirhat District	10	81.33	68.80	12.43	0.10	0.00	68.80	12.53	208	0	512.79	6.41
Nilphamari District	12	92.05	87.35	4.70	0.00	0.00	87.35	4.70	288	73	646.35	8.08
Panchagarh District	10	68.83	56.13	12.62	0.08	0.00	56.13	12.70	31	51	399.48	4.99
Rangpur District	16	122.57	98.07	23.61	0.90	0.00	98.17	24.51	383	22	783.77	9.80
Thakurgaon District	10	71.33	65.15	6.18	0.00	0.00	65.15	6.18	8	16	416.64	5.21
												0.00
Jamalpur District	14	111.77	78.91	30.96	1.90	0.00	78.91	32.86	849	0	826.74	10.33
Kishoreganj District	27	161.25	121.88	38.42	1.67	0.00	121.88	39.37	348	50	968.67	12.11
Mymensingh District	24	190.27	147.99	32.83	11.31	0.00	146.49	42.28	291	36	1103.87	13.80
Netrokona District	20	138.42	111.34	10.81	5.15	3.12	113.28	27.08	867	67	1041.09	13.01
Sherpur District	9	61.21	54.33	6.88	0.00	0.00	54.33	6.88	15	200	411.12	5.14
Tangail District	26	212.01	143.62	63.72	3.27	0.00	143.62	68.39	588	0	1243.29	15.54
	235	1764.38	1383.97	345.49	24.93	3.12	1385.51	380.41	4600		11040.19	138.00

Table A14-5 LGED prioritized list of Union roads

Exchange rate: Tk. 80 = USD 1

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Annex 15

HILIP long lists of ghat subprojects

List of tables

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Table A15-2 Netrokona District	3

Upazila	Name of ghat	Name of Union	Upazila ranking
Austagram	Equordia Bazar Ghat	8 Purba Austagram	1 411151115
Austagram	Akhrar Bazaar Abdul Wahud High School Ghat	8 Purba Austagram	
Austagram	Ashram Ghat	8 Purba Austagram	
Austagram	Austagram Launch Ghat	3 Purba Austagram	
Austagram	Babubazar Ghat	3 Purba Austagram	
Austagram	Kewda Ghat	3 Purba Austagram	
Austagram	Bahadupur Anandabazar Launch Ghat	Kastul	
Austagram	Adampur Bazar Ghat	6 Adampur	
Austagram	Kalma Launch Ghat	5 Kalma	
Austagram	Chabianagar Bazar Ghat	Deoghar	
Austagram	Abdullahpur Bazar Ghat	Khayerpur Abdullahpur	
Austagram	Banglapara Bazar Ghat	Bangalpara	
Itna	Panch Kahania Ghat	Baribari	9 th
Itna	Kanla Ghat	Raituti	4 th
Itna	Raji Ghat	Raituti	6 th
Itna	Ghandhabpur Ghat	Raituti	11 th
Itna	Dhara Ghat	Raituti	5 th
Itna	Joysiddi Ghat	Joysiddi	1 st
Itna	Barshikura Sherpur Ferry Ghat	Badia	3 rd
Itna	Mollapara Ghat	Itna	10 th
Itna	Limepasha Ghat	Mrigha	7 th
Itna	Elongjuri Bazar Ghat	Elongjuri	2^{nd}
Itna	Chowganga Bazar Ghat	Chowganga	8^{th}
Mithmahoin	Mithmahoin Bazar Ghat	Mithmahoin	
Mithmahoin	Gopedighi Bazar Ghat	Gopedighi	
Mithmahoin	Khatkhal Bazar Ghat	Khatkhal	
Mithmahoin	Ghagra Bazar	Ghagra	
Mithmahoin	Keorjire Bazar Ghat	Keorjire	
Mithmahoin	Kanchanpur	Kewerjore	
Mithmahoin	Hemantagonj	Kewerjore	
Mithmahoin	Dhaki Bazar Ghat	Dhaki	
Mithmahoin	Atpasha Bazar Ghat	Dhaki	
Mithmahoin	Charigram Bazar Ghat	Dhaki	
Nikli	Jalalpur Bazar Ghat	Karpasha	
Nikli	Dampara Bazar Ghat	2 Dampara	
Nikli	Aliapara Bazar Ghat	2 Dampara	
Nikli	Dualatpur Bazar Ghat	Gurari	
Nikli	Nutun Bazar Nagarer Ghat	Nikli	
Nikli	Chatirchar Ferry Ghat	Chatirchar	
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Table A15-1 Kishoreganj District

Singpur

Nikli

Singpur Bazar

Upazila	Name of ghat	Name of Union	Upazila ranking
Khaliajuri	Udaypur Bazar Ghat	4 Nagar	
Khaliajuri	Naogaon Bazar Ghat	4 Nagar	
Khaliajuri	Adampur Bazar Ghat	4 Nagar	
Khaliajuri	Khaliajuri Bazar Ghat	3 Khaliajuri	
Khaliajuri	Ballibazar Ghat	2 Chakua	
Khaliajuri	Lapshia Bazar Ghat	2 Chakua	
Khaliajuri	Panchhat Bazar Ghat	6 Gazipur	
Khaliajuri	Ziakhara Bazar Ghat	1 Mendipur	
Khaliajuri	Jagannalpur Bazar Ghat	1 Mendipur	
Kalmakanda	Kashobpur Bazar	Baro Khapon	1 st
Kalmakanda	Jatharabari Bazar	Baro Khapon	2^{nd}
Kalmakanda	Baro Khapon	Baro Khapon	3 rd
Kalmakanda	Gomai Bazar	3 Pogla	1 st
Kalmakanda	Ranigaon	3 Pogla	2^{nd}
Mohanganj	Gaglajure Bazar	7 Gaglajure	1 st
Mohanganj	Gaglajure Nowaga Baro Masjeed Bazar	7 Gaglajure	2^{nd}
Mohanganj	Ruhul Amin Rathon Tower Ghat	6 Soyear	1 st
Mohanganj	Charakhali Toler Ghat	6 Soyear	2^{nd}
Modan	Joybanglabazar Ghat	Magham	1 st
Modan	Ranijola Bazar Ghat	Magham	2^{nd}
Modan	Kadamsree Sakal Bazar Ghat	Gobindrowsree	1 st
Modan	Gobindrowsree Bazar Ghat	Gobindrowsree	2^{nd}

Table A15-2 Netrokona District

Annex 16

Selection of Upazila and Union road upgrading subprojects

List of tables

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ng	Score	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		face Type Decembe	· /		dra neec	oss- inage ls (m)	Total	cost (BDT	'000) 2012	Prices]
Ranking	Ranking Score							Earthen	Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total	
1	0.8018	47.44%	NILPHAMARI	JALDHAKA	173362007	Jaldhaka Bazar (Upazila H/Q)-Mirgonj GC Via Binnabari hat	6.00	5.70	0.30	0.00	0.00	0	0	46,806	0	1,966	48,772	
2	0.7976	53.72%	RANGPUR	PIRGANJ	185762010	Bhendabari GC to Nawabgonj GC via Pirerhat-Tukuria-Katchdaherghat	12.40	10.43	1.97	0.00	0.00	0	4	96,732	1,494	4,064	102,290	j
3	0.7728	57.52%	RANGPUR	PIRGACHA	185732005	Chowdhurani GC-Sundarganj UZHQ (Part)	8.70	3.13	5.57	0.00	0.00	0	11	70,470	4,310	2,851	77,631	-
4	0.6864	36.96%	RANGPUR	PIRGANJ	185762009	Chatra GC-Raniganj GC	3.00	3.00	0.00	0.00	0.00	0	3	24,300	1,120	983	26,403	5
			THAKURGAON	PIRGANJ	194822007	Nakkatihat GC-Sinua RHD Road.	4.50	4.11	0.00	0.39	0.00	0	0		0	1,443	35,490	1
6			JAMALPUR	ISLAMPUR		Mosharofgonj R & H-Guthail GC Via Belghacha UP Rd.	8.50	8.50	0.00	0.00	0.00	109	0	, .,	46,140	2,872	120,539	
7			DINAJPUR	KAHAROL		Mutunihat-Noshipurhat Rd.	5.05	5.05	0.00		0.00	0	0	57,125	0	-,	41,342	ne
			MYMENSINGH	BHALUKA		Mallikbari Bazar-Borchona	9.75	9.75	0.00	0.00	0.00	0	0	05,000	0	- 3-	86,385	, Xes
			NILPHAMARI	NILPHAMARI-S		Nilphamari-Jaldhaka R&H road at Kachukata Bondor to Nilphamari-Domar R&H road	15.15	11.75	3.40	0.00	0.00	0	0	122,715	0	4,965	127,680	f Fina
			NILPHAMARI	DIMLA		Baburhat G.C-CARE bazar R&H Road	4.82	4.82	0.00	0.00	0.00	0	0	39,042	0	1,580	40,622	l Rep
			DINAJPUR	FULBARI		Amdungihat GC-Baraihat GC via Pathokparahat and Samser nagar hat Rd.	8.00	6.50			0.00		8		2,968	2,564	66,060	
			DINAJPUR	KHANSHAMA	127602006	Khansama-Kachinia hat G.C.	15.50	15.50	0.00	0.00	0.00	1	0		371	4,969	127,263	,
			DINAJPUR	FULBARI		Madilahat GC (Chintamon Moor)-Ambarihat GC Road.	18.45	10.15	8.30		0.00				11,130	5,914	156,637	
			DINAJPUR	BIRGANJ		Kobiraj GC (NHW)-Mahugaon R&H.Road	6.09	4.27	1.82	0.00	0.00	0	0	,	0	1,952	49,856	
15	0.6262	38.44%	PANCHAGARH	PANCHAGARH-S	177732007	Panchagarh Barister Institute - Goaljharhat via Amtola Road.	13.00	5.43	7.57	0.00	0.00	0	0	102,258	0	4,167	106,425	
16	0.6236	33.88%	THAKURGAON	RANISANKAIL	194862008	Nekmord College R&H-Moharaja GC Road	6.00	6.00	0.00	0.00	0.00	0	0	47,196	0	1,923	49,119	
17	0.6216	31.41%	PANCHAGARH	PANCHAGARH-S	177732011	Chaklahat GC - Harivasha hat GC Road via Debijadu Pry. School road	7.15	7.09	0.06	0.00	0.00	0	0	56,242	0	2,292	58,534	
				MYMENSINGH-S		Begunbari GC-Rahimgong GC Rd.via Parangonj bazar (Sader portion)	7.09	7.09	0.00	0.00	0.00	100	0	60,400	42,130	2,417	104,947	
19	0.6131	21.48%	NILPHAMARI	DOMAR	173152013	Sonarai Hat RHD road -Basunia Hat GC via Sonarai UP Office.	6.20	6.20	0.00	0.00	0.00	0	0	50,220	0	2,032	52,252	

Table A16-1 List of UZR that passed selection and appraisal procedure - by RANKING

a	core	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		e (km) : er 2011		dra need	ross- inage ds (m)	Total cost (BDT '000) 2012 Prices					
Ranking	Ranking Score							Earthen	Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement . Structures	Road	Bridges & Culverts	Road Safety	Total	
20	0.6044	22.97%	MYMENSINGH	PHULPUR		kakni R&H-Shyamgonj GC Road via Bhusher Bazar & Raijdarikel G.C.	17.30	14.58	2.72	0.00	0.00	0	0	147,379	0	5,899	153,277	ĺ
21	0.5969	36.20%	JAMALPUR	SARISHABARI	339852009	Simlabazar (RHD)-Rayagonj GC Road via Borobaria	5.00	4.00	0.50	0.50	0.00	0	0	42,075	0	1,689	43,764	
22	0.5940	27.50%	MYMENSINGH	FULBARIA	361202011	Hatkalir Bazar GC-Kalibari Bazar via Garajan	3.10	3.10	0.00	0.00	0.00	4	0	25,479	1,575	1,057	28,111	
23	0.5875	31.92%	PANCHAGARH	BODA	177252006	Maidandighi GC - Bottoli G.C Road.	13.00	10.75	2.25	0.00	0.00	0	0	102,258	0	4,167	106,425	
				TRISHAL		Chakrampur GC-Kalirbazar GC road .	11.78	8.59	3.19	0.00	0.00	25	25	100,354	19,013	4,017	123,383	
25	0.5770	27.00%	JAMALPUR	MADARGANJ	339582009	Rayaganj GC-Simla Bazar RHD Road via Royerchara Bazar Rd. (Madarganj Part)	4.95	4.47	0.48	0.00	0.00	105	0	41,654	44,447	1,672	87,773	
26	0.5761	31.67%	LALMONIRHAT	ADITMARI		Mohishkhocha GC-Namurihat Zila road .	6.12	4.71	1.42	0.00	0.00	0	0	47,758	0	2,006	49,764	inexe
27	0.5745	25.19%	DINAJPUR	KHANSHAMA	127602012	Tangua (R&H) - Pakerhat G.C.	5.35	5.35	0.00	0.00	0.00	0	0	42,083	0	1,715	43,798	0
28	0.5710	46.36%	NETROKONA	MADAN		Teosree GC-Fatepur GC.	8.40	7.20	0.45	0.00	0.75	0	0	71,560	0	2,864	74,424	
			TANGAIL	GHATAIL	393282005	Dhalapara-Deopara-Purbasinda Road	7.76	5.46	0.10	2.20	0.00	0	0	68,843	0	2,621	71,464	na
30	0.5592	31.98%	DINAJPUR	HAKIMPUR	127472003	Hilli GC-Katlahat GC starting from Satkuri Railgate via NAYANAGAR HAT GC	5.00	3.07	0.93	1.00	0.00	1	0	39,330	519	1,603	41,452	Annexes of Final Report
31	0.5566	16.25%	RANGPUR	KAUNIA	185422005	Mahigonj Pawtana (Damurchakla)-Nabdigonj Tapamodhupur GC (Kaunia Portaion)	1.75	1.75	0.00	0.00	0.00	0	2	14,175	747	574	15,495	
			THAKURGAON	BALIADANGI	194082004	Lahiri G.C-Ramnath G.C via Chowrangi hat Road	7.90	6.85	1.05	0.00	0.00	0	0	62,141	0	2,532	64,674	
				BHALUKA		Bhaluka-Dhalia Rd	6.30	5.12	1.18	0.00	0.00	0	0	53,670	0	2,148	55,818	
34	0.5491	17.29%	RANGPUR	KAUNIA		R&H (Bitalergunti)-Barodargha GC Rd.	6.10	5.79	0.31	0.00	0.00	0	0	47,586	0	1,999	49,585	
35	0.5472	13.80%	KURIGRAM	RAJIBPUR	149082003	Rajibpur GC-Kadalkati G.C.	6.95	5.39	1.56	0.00	0.00	0	20	59,492	8,204	2,278	69,974	
			GAIBANDHA	SADULLAPUR		Madergonj G.C-Pachar bazar G.C	11.40	11.11	0.29	0.00	0.00	0	0	88,931	0	3,736	92,668	
37	0.5366	23.73%	RANGPUR	GANGACHARA		Gangachara UZHQ (Near College)-Paglapir GC Via Birabarihat	8.93	4.32	4.61	0.00	0.00	0	0	72,333	0	2,927	75,260	
			NILPHAMARI	DOMAR		Bashunia Hat G.C-Nilphamri Ramgon hat GC (Domar portion) via Dugdugirhat.	6.40	5.10	1.30	0.00	0.00	0	0	49,926	0	2,098	52,024	
			SHERPUR	SREEBORDI		Bhayadanga-Bakshigonj Road.	10.70	8.88	1.83	0.00	0.00	0	0	86,831	0	3,615	90,445]
			PANCHAGARH	DEBIGANJ		Saldanga R&H at Gp School - Shakoa GC	3.80	2.40	1.40	0.00	0.00	0	0	28,751	0	1,218	29,969	
41	0.5245	28.86%	TANGAIL	NAGARPUR	393762003	Nagarpur-Mirzapur Road Via Mokna	15.78	7.96	7.82	0.00	0.00	222	0	132,789	93,973	5,331	232,093	1

g	core	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Surface Type (km) as of December 2011				drai need	oss- inage ls (m)	Total cost (BDT '000) 2012 Prices			
Ranking	Ranking Score							Earthen	Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
			THAKURGAON			Mirdangihat R&H-Katiharhat Road	9.20	7.95	0.00	1.25	0.00	0	0	72,367	0	2,949	75,316
			KURIGRAM	RAJARHAT		Nazimkhan GC-Ratigram GC via Dangrarhat.	7.10	5.96	1.14	0.00	0.00	0	Ť	57,510	0	2,327	59,837
44	0.5218	22.56%	DINAJPUR	BIRAMPUR	127102005	Tatakpur RHD-Madhala GC (Janipur) via Munnapara River ghat & Jotjoyram	3.60	3.60	0.00	0.00	0.00	98	0	28,318	40,033	1,154	69,505
			NILPHAMARI	JALDHAKA		Kaimari Hat G.C-Jaldhaka Rangpur R HW Road (at Majar)	9.40	5.35	4.05	0.00	0.00	0	0	73,329	0	3,081	76,410
			JAMALPUR	BAKSHIGANJ	339072008	Dotterchar R&H-Sarmara G.C.	6.00	4.45	0.60		0.00	0	-	48,690	0	2,027	50,717
				TETULIA		Panchagarh-Banglabandha R&H (Dargashing) - Shalbahan GC	4.01	4.01	0.00		0.00	0	Ű	30,340	0	1,285	31,625
			MYMENSINGH			Kayarchala nashor shop RHD-shagordighi GC Road.	14.90	10.02	3.58		0.00	3		126,933	21,065	5,080	153,079
			JAMALPUR	MELENDAH		Tonkey GC - Durmut GC (Shundara fasal) Road	2.50	0.40	0.00	2.10	0.00	0	0	20,288	0	845	21,132
50	0.5097	29.70%	GAIBANDHA	PALASHBARI	132672004	Palashbari Upazila H/Q-Chattra GC Road via Kishorgari UP office	10.40	6.10	4.30	0.00	0.00	0	0	84,240	0	3,408	87,648
51	0.5078	23.54%	DINAJPUR	CHIRIRBANDAR		Binnakuri GC to Ishamati National HY	8.40	7.70	0.70	0.00	0.00	0	7	66,074	2,597	2,693	71,364
52	0.5055	19.38%	THAKURGAON	BALIADANGI	194082005	Kalomagh G.C-Neckmord Hat Via Bishrampur Road	11.38	8.76	2.62	0.00	0.00	0	12	89,515	4,678	3,648	97,841
			DINAJPUR	CHIRIRBANDAR		Chirirbandar Amtoli RHD to Joshi Hat GC.	5.60	4.95	0.50	0.15	0.00	0	4	42,370	1,484	1,795	45,649
				MUKTAGACHA		Muktagacha Trimohini Natun Bazar GC-Mohammadnagar GC via Hazi Kashem Ali Girls College, Shib bari n & Gorbazil Bazar (Muktagacha portion)	8.60	6.60	2.00	0.00	0.00	4	12	73,263	6,146	2,932	82,341
			MYMENSINGH			Haddervita RHD-kalir bazar GC road	8.45	5.67	2.79		0.00	0		71,986	0	2,881	74,867
56			DINAJPUR	BIROL			9.40	6.80	2.60	0.00	0.00	0	-	73,940	0	3,013	76,954
57			RANGPUR	MITHAPUKUR		Bairagigonj Busstand NHW to Ranipukur Via Dhap Bazar.	8.60	4.60	4.00		0.00	10		67,089	13,032	2,819	82,939
				AUSTAGRAM		Austagram-Mitamoin Road	10.20	10.20	0.00		0.00	68		83,834	26,119	3,478	113,430
			JAMALPUR TANGAIL	SARISHABARI BASAIL		Norpara-Dowail Basail-Natiapara GC via Bilpara Road.	20.00 8.66	6.26 6.36	13.74 2.30	0.00	0.00	0 130	-	177,500 72,874	0 55,029	6,757 2,926	184,257 130,829
61	0.4896	27.91%	LALMONIRHAT	KALIGANJ	152392008		10.80	5.02	5.78	0.00	0.00	0	0	87,480	0	3,540	91,020
62	0.4880	13.28%	MYMENSINGH	GAFFARGAON	361222010	Lamkain-Kandipara Rd.	4.50	4.50	0.00	0.00	0.00	6	0	38,336	2,113	1,534	41,982

ac	core	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		face Type Decembe	· ·		dra neec	oss- inage ls (m)	Total cost (BDT '000) 2012 Prices			
Ranking	Ranking Score							Earthen	Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
63	0.4841	19.06%	DINAJPUR	BIROL	127172007	Kashidanga GC to Mongolpur GC via Mill Danga Bazer.	5.40	5.40	0.00	0.00	0.00		0	40,856	0	1,731	42,587
			PANCHAGARH			Jorpakuri R&H - Panchpir Manograme GC	6.73	2.62	4.12	0.00	0.00	0	0	52,938	0	2,157	55,096
65	0.4773	12.51%	MYMENSINGH	GOURIPUR	361232005	Shyamgonj GC-Hogla GC (Gouripur part).	7.50	4.57	2.93	0.00	0.00	0	0	67,343	0	2,557	69,900
66	0.4763	13.69%	DINAJPUR	KAHAROL	127562008	Purba Sadipur ten mail RHD-Mutunihat GC Rd.	4.54	4.54	0.00	0.00	0.00	200	0	35,712	81,700	1,455	118,867
67	0.4725	24.52%		BHALUKA	361132006	Bhaluka-Medila-Birunia road	10.30	2.60	7.70	0.00	0.00	0	0	87,746	0	3,512	91,258
				SUNDARGANJ	132912005	Sundargonj-Materhat G.C (FRA)	19.02	9.91	9.11	0.00	0.00	0	0	154,078	0	6,234	160,312
			LALMONIRHAT	KALIGANJ		Duhuli Jourgacha GC-Bhelabar GC Via Shialkhowa.	6.50	2.10	4.40	0.00	0.00	0	0	52,650	0	2,130	54,780
70	0.4678	22.77%	TANGAIL	SHAKHIPUR	393852004	Sakhipur - Suruj GC Road via Salgrampur, Tejpur Ferryghat.	11.60	4.76	6.84	0.00	0.00	0	0	97,614	0	3,919	101,533
71	0.4641	21.68%	DINAJPUR	BIROL	127172005	Narabari GC to Mongolpur GC via Okra Madrasha and Fulbari hat road.	11.00	7.06	3.94	0.00	0.00	0	0	83,226	0	3,526	86,752
72	0.4555	17.11%	SHERPUR	NALITABARI	389702011	Araiani Bazar-Ghagpara bazar-Kalakuma-Karanga para	13.00	8.95	2.00	2.05	0.00	65	0	105,495	27,515	4,392	137,402
73	0.4526	23.92%	DINAJPUR	GHORAGHAT	127432009	Bager hat GC (Azad mor)-Osmanpur GC via T&T mor.	7.50	2.81	2.31	2.38	0.00	0	0	58,995	0	2,404	61,399
74	0.4483	25.82%	DINAJPUR	BIRAMPUR		Rampura Habibpur more-Madila GC Via Ketra GC & Ekoir GC (Birampur Portion)	9.98	2.23	7.75	0.00	0.00	0	0	78,503	0	3,199	81,702
			MYMENSINGH	HALUAGHAT		R&H (Nagla)-Goatola GC via Shakuai GC(Haluaghat part).	17.50	3.47	10.20	3.84	0.00	112	0	149,083	47,186	5,967	202,235
76	0.4447	18.50%	JAMALPUR	MELENDAH	339612009	Melendah GC - Tonkey GC via Bhaluka Road	6.46	0.61	5.84	0.00	0.00	0	0	91,351	0	2,181	93,532
			TANGAIL	DELDUAR	393232003	Delduar-Natiapara Rd.	6.13	3.97	2.16	0.00	0.00	70	0	51,584	29,631	2,071	83,286
78	0.4387	13.92%	DINAJPUR	HAKIMPUR		Dangapara GC-Nayanagar GC via Shalpukuria Debkhanda	4.70	4.37	0.00	0.33	0.00	3	0	35,560	1,039	1,507	38,106
			KURIGRAM	FULBARI		Fulbari-Gagla G. CGongerhat R & H Road to Ramkhana Dighirpar Via Anantopur Barakutih (Fulbari part).	8.85	1.76	5.35	1.74	0.00	0	0	71,685	0	2,900	74,585
80	0.4358	22.31%	GAIBANDHA	PALASHBARI		Thutiapukur RHW-Komurpur GC Road via Samader Bazar	8.50	2.71	5.79	0.00	0.00	0	0	66,309	0	2,786	69,094
			GAIBANDHA	GAIBANDHA-S	132242009	Tulsighat hat-Ramchandrapur Palli Health center road	7.90	5.40	2.50	0.00	0.00	0	0	63,990	0	2,589	66,579
82	0.4187	14.04%	GAIBANDHA	SADULLAPUR	132822010	Sadullapur-Pachar Bazar GC Road	7.15	4.63	2.52	0.00	0.00	0	18	57,915	7,052	2,343	67,311
83	0.4161	14.95%	SHERPUR	SREEBORDI	389902005	Karnajhora-Bakshiganj.	10.42	8.42	2.00	0.00	0.00	60	0	84,558	25,398	3,520	113,477

Preparatory Survey on the Northern Region Rural Development and Local Governance Improvement Project in Bangladesh

56	core	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		Surface Type (km) as of December 2011				ross- inage ds (m)	Total o	Prices			
Ranking	Ranking Score							Earthen	Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total	
84	0.4114	12.54%	SHERPUR	SHERPUR-S	389882010	Lasmanpur RHD - Nandina GC Road via. Gugurakandi UP	10.45	6.85	3.60	0.00	0.00		0	87,937	102,015	3,531	193,483	
			NETROKONA	MADAN		Fatepur GC to Tarail GC via Dhankunia Ferry Ghat road.	3.67	1.55	1.55		0.57	0	Ť	31,248	0	1,251	32,498	
			TANGAIL	TANGAIL-S		Torapgonj-Jamuna Bridge Approach Road via char pouly	21.30		3.30		0.00			179,210	156,621	7,196	343,057	
87	0.4016	14.59%	TANGAIL	BASAIL	393092003	Kanchanpur GC (Dhongpara)-Gorai-Shakhipur R&H (Patharghata) Road.	6.10	5.45	0.65	0.00	0.00	260	0	54,138	110,058	2,061	166,256	
88	0.3992	15.65%	KISHOREGANJ	MITHAMOIN	348592003	Mithamoin-Natunhati-Austagram Rd (Mithamoin Part).	7.05	7.05	0.00	0.00	0.00	4	0	57,944	1,536	2,404	61,884	
89	0.3975	14.18%	THAKURGAON	THAKURGAON- S		Parpugi RHD-Neckmorad GC Road.	6.80	2.58	4.22	0.00	0.00	2	9	53,489	4,081	2,180	59,750	Annexes
			KISHOREGANJ	NIKLI		Nikli Bazar-Chuntikhali Launch Ghat-Ashtagram Road	9.50	9.50	0.00	0.00	0.00	1	0	78,081	230	3,239	81,550	
			SHERPUR	NAKLA		Nakla-Tarakanda GC-Nalitabari Road.	12.00	2.00	10.00	0.00	0.00	0	0	106,500	0	4,054	110,554	f Fina
			TANGAIL	DELDUAR		Parthrail Up office to Lowhati GCC Road	14.70	12.40	2.30	0.00	0.00	230	0	130,463	97,359	4,966	232,788	of Final Report
93	0.3894	18.59%	LALMONIRHAT	LALMONIRHAT- S		Lalmonirhat upazilla H/Q at purbo thana para to Mohendranagar GC via Dhebdhebir hat.	10.85	3.45	7.10	0.30	0.00	0	0	87,885	0	3,556	91,441	ort
-			NETROKONA	ATPARA	372042008	Avoypasha R&H-Najirganj G.C. road via Mobarakpur	11.43	11.43	0.00	0.00	0.00	92	0	97,372	37,048	3,897	138,318	
95	0.3717	12.11%	JAMALPUR	JAMALPUR-S		G.C-Jamalpur-Chacua-Moktagasa D.R at Gopalpur.	13.10	4.00	9.10	0.00	0.00	7	0	110,237	2,699	4,426	117,361	
96	0.3662	21.16%	NETROKONA	NETRAKONA-S		Netrakona-Shidly GC Road. (Sadar part.)	13.14	7.00	5.87	0.00	0.28	250	0	187,718	100,474	4,480	292,672	
			GAIBANDHA	GAIBANDHA-S		Tulshi ghat-Pacherbazar GC via Khur Dokomurpur Bazar	5.80	1.80	4.00	0.00	0.00	0	0	46,980	0	1,901	48,881	
98	0.3604	15.15%	TANGAIL	BHUAPUR		Shialkol GC-Nikrail GC Via Golabari road	8.26	3.51	4.75	0.00	0.00	0	9	73,308	3,470	2,791	79,568	
99	0.3518	16.72%	NETROKONA	BARHATTA	372092007	Amtala-Samaj GC Road (Barhatta Portion)	10.94	6.24	4.70	0.00	0.00	0	0	89,916	0	3,730	93,646	
			TANGAIL	MADHUPUR	393572003	Chapri-Garohat Road	6.22	0.00		4.82	0.00		0	50,475	0	2,101	52,577	
10	0 roads					n of the existing gong plug the existing			264.56		1.60			7,336,476	1,285,545	292,686	8,914,707]

Notes: The total span of cross-drainage structures required is the sum of the existing gaps plus the existing structures which are damaged and must be replaced Additional UZR appraised to meet target of 'one road per Upazila'

Annexes of Final Report	Preparatory Survey on the Northern Region Rural Development and Local Governance Improvement Project in Bangladesh
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		EIRR	District	Upazila	Road Code	Road Name	Total		ce Type			Cro		Total c	ost (BDT '	000) 2012	2 Prices
	re						Length (km)	L	Decembe	r 2011		drain needs					
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
46	0.5152	18.47%	JAMALPUR	BAKSHIGANJ	339072008	Dotterchar R&H-Sarmara G.C.	6.00	4.45	0.60	0.95	0.00	0	0	48,690	0	2,027	50,717
			JAMALPUR	ISLAMPUR	339292007	Mosharofgonj R & H-Guthail GC Via Belghacha UP Rd.	8.50	8.50	0.00	0.00	0.00	109	0	71,528	46,140	2,872	120,539
95	0.3717	12.11%	JAMALPUR	JAMALPUR-S	339362005	Banschara G.C-Jamalpur-Chacua-Moktaga sa D.R at Gopalpur.	13.10	4.00	9.10	0.00	0.00	7	0	110,237	2,699	4,426	117,361
25	0.5770	27.00%	JAMALPUR	MADARGANJ	339582009	Rayaganj GC-Simla Bazar RHD Road via Royerchara Bazar Rd. (Madarganj Part)	4.95	4.47	0.48	0.00	0.00	105	0	41,654	44,447	1,672	87,773
49	0.5133	27.24%	JAMALPUR	MELENDAH	339612010	Tonkey GC - Durmut GC (Shundara fasal) Road	2.50	0.40	0.00	2.10	0.00	0	0	20,288	0	845	21,132
76	0.4447	18.50%	JAMALPUR	MELENDAH	339612009	Melendah GC - Tonkey GC via Bhaluka Road	6.46	0.61	5.84	0.00	0.00	0	0	91,351	0	2,181	93,532
21	0.5969	36.20%	JAMALPUR	SARISHABARI	339852009	Simlabazar (RHD)-Rayagonj GC Road via Borobaria	5.00	4.00	0.50	0.50	0.00	0	0	42,075	0	1,689	43,764
59	0.4902	23.13%	JAMALPUR	SARISHABARI	339852006	Norpara-Dowail	20.00	6.26	13.74	0.00	0.00	0	0	177,500	0	6,757	184,257
			JAMALPUR DISTRICT			8	66.51	32.69	30.27	3.55	0.00	221	0	603,322	93,285	22,469	719,075
				AUSTAGRAM		Austagram-Mitamoin Road	10.20	10.20	0.00	0.00	0.00	68	0	83,834	26,119	3,478	113,430
88				MITHAMOIN	348592003	Mithamoin-Natunhati-Austagra m Rd (Mithamoin Part).	7.05	7.05	0.00	0.00	0.00	4	0	57,944	1,536	2,404	61,884
90	0.3964	16.96%	KISHOREGANJ	NIKLI	348762006	Nikli Bazar-Chuntikhali Launch Ghat-Ashtagram Road	9.50	9.50	0.00	0.00	0.00	1	0	78,081	230	3,239	81,550
			KISHOREGANJ DISTRICT			3	26.75	26.75	0.00	0.00	0.00	73	0	219,858	27,886	9,121	256,865
8	0.6493	36.07%	MYMENSINGH	BHALUKA	361132004	Mallikbari Bazar-Borchona	9.75	9.75	0.00	0.00	0.00	0	0	83,060	0	3,324	86,385
33	0.5509	23.18%	MYMENSINGH	BHALUKA	361132005	Bhaluka-Dhalia Rd	6.30	5.12	1.18	0.00	0.00	0	0	53,670	0	2,148	55,818
				BHALUKA	361132006	Bhaluka-Medila-Birunia road	10.30	2.60	7.70	0.00	0.00	0	0	87,746	0	3,512	91,258
22	0.5940	27.50%	MYMENSINGH	FULBARIA	361202011	Hatkalir Bazar GC-Kalibari Bazar via Garajan	3.10	3.10	0.00	0.00	0.00	4	0	25,479	1,575	1,057	28,111
48	0.5140	19.84%	MYMENSINGH	FULBARIA	361202013	Kayarchala nashor shop RHD-shagordighi GC Road.	14.90	10.02	3.58	1.30	0.00	3	47	126,933	21,065	5,080	153,079
62	0.4880	13.28%	MYMENSINGH	GAFFARGAON	361222010	Lamkain-Kandipara Rd.	4.50	4.50	0.00	0.00	0.00	6	0	38,336	2,113	1,534	41,982
65	0.4773	12.51%	MYMENSINGH	GOURIPUR		Shyamgonj GC-Hogla GC (Gouripur part).	7.50	4.57	2.93	0.00	0.00	0	0	67,343	0	2,557	69,900

Table A16-2 List of UZR that passed selection and appraisal procedure - by DISTRICT

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe	· /		Cro drain need		Total c	ost (BDT '	000) 201	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
75	0.4479	17.20%	MYMENSINGH	HALUAGHAT	361242003	R&H (Nagla)-Goatola GC via Shakuai GC(Haluaghat part).	17.50	3.47	10.20	3.84	0.00	112	0	149,083	47,186	5,967	202,235
54	0.5010	14.26%	MYMENSINGH	MUKTAGACHA	361652010	Muktagacha Trimohini Natun Bazar GC-Mohammadnagar GC via Hazi Kashem Ali Girls College, Shib bari n & Gorbazil Bazar (Muktagacha portion)	8.60	6.60	2.00	0.00	0.00	4	12	73,263	6,146	2,932	82,341
18	0.6140	36.15%	MYMENSINGH	MYMENSINGH-S	361522009	Begunbari GC-Rahimgong GC Rd.via Parangonj bazar (Sader portion)	7.09	7.09	0.00	0.00	0.00	100	0	60,400	42,130	2,417	104,947
20	0.6044	22.97%	MYMENSINGH	PHULPUR	361812007	kakni R&H-Shyamgonj GC Road via Bhusher Bazar & Raijdarikel G.C.	17.30	14.58	2.72	0.00	0.00	0	0	147,379	0	5,899	153,277
24	0.5841	30.88%	MYMENSINGH	TRISHAL	361942010	Chakrampur GC-Kalirbazar GC road .	11.78	8.59	3.19	0.00	0.00	25	25	100,354	19,013	4,017	123,383
55	0.4991	19.66%	MYMENSINGH	TRISHAL	361942006	Haddervita RHD-kalir bazar GC road	8.45	5.67	2.79	0.00	0.00	0	Ŭ	71,986	0	2,881	74,867
			MYMENSINGH DISTRICT			13	127.07	85.65	36.29	5.14	0.00	253	84	1,085,029	139,227	43,327	1,267,583
94	0.3849	13.91%	NETROKONA	ATPARA	372042008	Avoypasha R&H-Najirganj G.C. road via Mobarakpur	11.43	11.43	0.00	0.00	0.00	92	0	97,372	37,048	3,897	138,318
99	0.3518	16.72%	NETROKONA	BARHATTA	372092007	Amtala-Samaj GC Road (Barhatta Portion)	10.94	6.24	4.70	0.00	0.00	0	0	89,916	0	3,730	93,646
28	0.5710	46.36%	NETROKONA	MADAN	372562008	Teosree GC-Fatepur GC.	8.40	7.20	0.45	0.00	0.75	0	0	71,560	0	2,864	74,424
			NETROKONA	MADAN	372562006	Fatepur GC to Tarail GC via Dhankunia Ferry Ghat road.	3.67	1.55	1.55	0.00		0	0	31,248	0	1,251	32,498
96	0.3662	21.16%	NETROKONA	NETRAKONA-S	372742006	Netrakona-Shidly GC Road. (Sadar part.)	13.14	7.00	5.87	0.00	0.28	250		,	100,474	4,480	292,672
			NETROKONA DISTRICT			5	47.58	33.42	12.56	0.00	1.60	342	0	477,813	137,522	16,223	631,558
			SHERPUR	NAKLA	389672003	Nakla-Tarakanda GC-Nalitabari Road.	12.00	2.00	10.00	0.00	0.00	0	-	,	0	4,054	110,554
72	0.4555	17.11%	SHERPUR	NALITABARI		Araiani Bazar-Ghagpara bazar-Kalakuma-Karanga para	13.00	8.95	2.00	2.05	0.00	65	0	105,495	27,515	4,392	137,402
			SHERPUR	SHERPUR-S		Lasmanpur RHD - Nandina GC Road via. Gugurakandi UP	10.45	6.85	3.60	0.00	0.00	241	0	87,937	102,015	3,531	193,483
			SHERPUR	SREEBORDI	389902004	Bhayadanga-Bakshigonj Road.	10.70	8.88	1.83		0.00	0		86,831	0	3,615	90,445
83	0.4161	14.95%	SHERPUR	SREEBORDI	389902005	Karnajhora-Bakshiganj.	10.42	8.42	2.00	0.00	0.00	60	0	84,558	25,398	3,520	113,477

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe	· ·		Cro drain need	nage	Total c	ost (BDT '	2000) 201	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
			SHERPUR DISTRICT			5	56.57	35.10	19.43	2.05	0.00	366	0	471,321	154,928	19,112	645,361
60	0.4899	31.85%	TANGAIL	BASAIL	393092004	Basail-Natiapara GC via Bilpara Road.	8.66	6.36	2.30	0.00	0.00	130	0	72,874	55,029	2,926	130,829
87	0.4016	14.59%	TANGAIL	BASAIL	393092003	Kanchanpur GC (Dhongpara)-Gorai-Shakhipur R&H (Patharghata) Road.	6.10	5.45	0.65	0.00	0.00	260	0	54,138	110,058	2,061	166,256
			TANGAIL	BHUAPUR	393192002	Shialkol GC-Nikrail GC Via Golabari road	8.26	3.51	4.75	0.00	0.00	0	9	73,308	3,470	2,791	79,568
77	0.4419	25.80%	TANGAIL	DELDUAR	393232003	Delduar-Natiapara Rd.	6.13	3.97	2.16	0.00	0.00	70	0	51,584	29,631	2,071	83,286
92	0.3894	13.65%	TANGAIL	DELDUAR	393232007	Parthrail Up office to Lowhati GCC Road	14.70	12.40	2.30	0.00	0.00	230	0	130,463	97,359	4,966	232,788
29	0.5631	34.60%	TANGAIL	GHATAIL	393282005	Dhalapara-Deopara-Purbasinda Road	7.76	5.46	0.10	2.20	0.00	0	0	68,843	0	2,621	71,464
10 0	0.3176	18.34%	TANGAIL	MADHUPUR	393572003	Chapri-Garohat Road	6.22	0.00	1.40	4.82	0.00	0	0	50,475	0	2,101	52,577
41	0.5245	28.86%	TANGAIL	NAGARPUR	393762003	Nagarpur-Mirzapur Road Via Mokna	15.78	7.96	7.82	0.00	0.00	222	0	132,789	93,973	5,331	232,093
70	0.4678	22.77%	TANGAIL	SHAKHIPUR	393852004	Sakhipur - Suruj GC Road via Salgrampur, Tejpur Ferryghat.	11.60	4.76	6.84	0.00	0.00	0	0	97,614	0	3,919	101,533
86	0.4069	15.07%	TANGAIL	TANGAIL-S	393952006	Torapgonj-Jamuna Bridge Approach Road via char pouly	21.30	18.00	3.30	0.00	0.00	370	0	179,240	156,621	7,196	343,057
			TANGAIL DISTRICT			10	106.51	67.87	31.62	7.02	0.00	1282	9	911,326	546,160	35,983	1,493,450
44	0.5218	22.56%	DINAJPUR	BIRAMPUR	127102005	Tatakpur RHD-Madhala GC (Janipur) via Munnapara River ghat & Jotjoyram	3.60	3.60	0.00	0.00	0.00	98	0	28,318	40,033	1,154	69,505
74	0.4483	25.82%	DINAJPUR	BIRAMPUR	127102002	Rampura Habibpur more-Madila GC Via Ketra GC & Ekoir GC (Birampur Portion)	9.98	2.23	7.75	0.00	0.00	0	0	78,503	0	3,199	81,702
14	0.6292	40.16%	DINAJPUR	BIRGANJ	127122004	Kobiraj GC (NHW)-Mahugaon R&H.Road	6.09	4.27	1.82	0.00	0.00	0	0	47,904	0	1,952	49,856
56	0.4942	24.60%	DINAJPUR	BIROL	127172009	Narabari GC to Pulhat RHD	9.40	6.80	2.60	0.00	0.00	0	0	73,940	0	3,013	76,954
			DINAJPUR	BIROL	127172007	Kashidanga GC to Mongolpur GC via Mill Danga Bazer.	5.40	5.40	0.00	0.00	0.00	0	0	40,856	0	1,731	42,587
71	0.4641	21.68%	DINAJPUR	BIROL	127172005	Narabari GC to Mongolpur GC via Okra Madrasha and Fulbari hat road.	11.00	7.06	3.94	0.00	0.00	0	0	83,226	0	3,526	86,752

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe	· /		-	oss- nage s (m)	Total c	cost (BDT '	'000) 201:	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
51	0.5078	23.54%	DINAJPUR	CHIRIRBANDAR	127302008	Binnakuri GC to Ishamati National HY	8.40	7.70	0.70	0.00	0.00	0	7	66,074	2,597	2,693	71,364
53	0.5034	22.77%	DINAJPUR	CHIRIRBANDAR		Chirirbandar Amtoli RHD to Joshi Hat GC.	5.60	4.95	0.50	0.15	0.00	0	4	42,370	1,484	1,795	45,649
11	0.6357	41.93%	DINAJPUR	FULBARI		Amdungihat GC-Baraihat GC via Pathokparahat and Samser nagar hat Rd.	8.00	6.50	1.50	0.00	0.00	0	8	60,528	2,968	2,564	66,060
13	0.6309	44.68%	DINAJPUR	FULBARI	127382004	Madilahat GC (Chintamon Moor)-Ambarihat GC Road.	18.45	10.15	8.30	0.00	0.00	30	0	139,593	11,130	5,914	156,637
73	0.4526	23.92%	DINAJPUR	GHORAGHAT		Bager hat GC (Azad mor)-Osmanpur GC via T&T mor.	7.50	2.81	2.31	2.38	0.00	0	0	58,995	0	2,404	61,399
30	0.5592	31.98%	DINAJPUR	HAKIMPUR		Hilli GC-Katlahat GC starting from Satkuri Railgate via NAYANAGAR HAT GC	5.00	3.07	0.93	1.00	0.00	1	0	39,330	519	1,603	41,452
78	0.4387	13.92%	DINAJPUR	HAKIMPUR	127472007	Dangapara GC-Nayanagar GC via Shalpukuria Debkhanda	4.70	4.37	0.00	0.33	0.00	3	0	35,560	1,039	1,507	38,106
7	0.6496	40.46%	DINAJPUR	KAHAROL	127562006	Mutunihat-Noshipurhat Rd.	5.05	5.05	0.00	0.00	0.00	0	0	39,723	0	1,619	41,342
66	0.4763	13.69%	DINAJPUR	KAHAROL		Purba Sadipur ten mail RHD-Mutunihat GC Rd.	4.54	4.54	0.00	0.00	0.00	200	0	35,712	81,700	1,455	118,867
12	0.6345	35.98%	DINAJPUR	KHANSHAMA	127602006	Khansama-Kachinia hat G.C.	15.50	15.50	0.00	0.00	0.00	1	0	121,923	371	4,969	127,263
27	0.5745	25.19%	DINAJPUR	KHANSHAMA	127602012	Tangua (R&H) - Pakerhat G.C.	5.35	5.35	0.00	0.00		0		42,083	0	-,	43,798
			DINAJPUR DISTRICT			17	133.56	99.35	30.35			333	19	1,034,638	141,841		1,219,293
81			GAIBANDHA	GAIBANDHA-S	132242009	Tulsighat hat-Ramchandrapur Palli Health center road	7.90	5.40	2.50	0.00	0.00	0	0	63,990	0	2,589	66,579
97	0.3661	13.72%	GAIBANDHA	GAIBANDHA-S	132242010	Tulshi ghat-Pacherbazar GC via Khur Dokomurpur Bazar	5.80	1.80	4.00	0.00	0.00	0	0	46,980	0	1,901	48,881
			GAIBANDHA	PALASHBARI		Palashbari Upazila H/Q-Chattra GC Road via Kishorgari UP office	10.40	6.10	4.30	0.00		0	0	84,240	0	2,100	87,648
80	0.4358	22.31%	GAIBANDHA	PALASHBARI	132672008	Thutiapukur RHW-Komurpur GC Road via Samader Bazar	8.50	2.71	5.79	0.00	0.00	0	0	66,309	0	2,786	69,094
36	0.5396	25.79%	GAIBANDHA	SADULLAPUR	132822009	Madergonj G.C-Pachar bazar G.C	11.40	11.11	0.29	0.00	0.00	0	0	88,931	0	3,736	92,668
82	0.4187	14.04%	GAIBANDHA	SADULLAPUR	132822010	Sadullapur-Pachar Bazar GC Road	7.15	4.63	2.52	0.00	0.00	0	18	63,990	0	2,589	66,579

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe	· /		drai	oss- inage ls (m)	Total c	ost (BDT '	000) 2012	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
68	0.4723	15.51%	GAIBANDHA	SUNDARGANJ	132912005	Sundargonj-Materhat G.C (FRA)	19.02	9.91	9.11	0.00	0.00	0	0	154,078	0	6,234	160,312
	•		GAIBANDHA DISTRICT	·		7	70.17	41.67	28.51	0.00	0.00	0	18	562,443	7,052	22,998	592,494
79	4.3630	12.53%	KURIGRAM	FULBARI	149182006	Fulbari-Gagla G. CGongerhat R & H Road to Ramkhana Dighirpar Via Anantopur Barakutih (Fulbari part).	8.85	1.76	5.35	1.74	0.00	0	0 0	71,685	0	2,900	74,585
43	0.5232	19.14%	KURIGRAM	RAJARHAT	149772005	Nazimkhan GC-Ratigram GC via Dangrarhat.	7.10	5.96	1.14	0.00	0.00	0	0	57,510	0	2,327	59,837
35	0.5472	13.80%	KURIGRAM	RAJIBPUR	149082003	Rajibpur GC-Kadalkati G.C.	6.95	5.39	1.56	0.00	0.00	0	-	59,492	8,204	2,278	69,974
			KURIGRAM DISTRICT			3	22.90	13.11	8.05	1.74	0.00	0	20	188,687	8,204	7,505	204,396
26	0.5761	31.67%	LALMONIRHAT	ADITMARI	152022007	Mohishkhocha GC-Namurihat Zila road .	6.12	4.71	1.42	0.00	0.00	0	0	47,758	0	2,006	49,764
			LALMONIRHAT	KALIGANJ		Durakuti GC to Zill Road at Bhularhat via chapar Hat	10.80	5.02	5.78	0.00	0.00	0	0 0	87,480	0	3,540	91,020
62	0.4687	22.54%	LALMONIRHAT	KALIGANJ		Duhuli Jourgacha GC-Bhelabar GC Via Shialkhowa.	6.50	2.10	4.40	0.00	0.00	0	0 0	52,650	0	2,130	54,780
93	0.3894	18.59%	LALMONIRHAT	LALMONIRHAT-S	152552010	Lalmonirhat upazilla H/Q at purbo thana para to Mohendranagar GC via Dhebdhebir hat.	10.85	3.45	7.10	0.30	0.00	0	0 0	87,885	0	3,556	91,441
			LALMONIRHAT DISTRICT			4	34.27	15.28	18.70	0.30	0.00	0	0	275,773	0	11,232	287,005
10	0.6454	22.83%	NILPHAMARI	DIMLA	173122011	Baburhat G.C-CARE bazar R&H Road	4.82	4.82	0.00	0.00	0.00	0	0 0	39,042	0	1,580	40,622
			NILPHAMARI	DOMAR	173152013	Sonarai Hat RHD road -Basunia Hat GC via Sonarai UP Office.	6.20	6.20	0.00	0.00	0.00	0	0 0	50,220	0	2,032	52,252
38			NILPHAMARI	DOMAR		Bashunia Hat G.C-Nilphamri Ramgon hat GC (Domar portion) via Dugdugirhat.	6.40	5.10	1.30	0.00	0.00	0	0	49,926	0	2,098	52,024
1			NILPHAMARI	JALDHAKA		Jaldhaka Bazar (Upazila H/Q)-Mirgonj GC Via Binnabari hat	6.00	5.70	0.30		0.00	0	0	46,806	0	1,966	48,772
45	0.5182	14.45%	NILPHAMARI	JALDHAKA	173362004	Kaimari Hat G.C-Jaldhaka Rangpur R HW Road (at Majar)	9.40	5.35	4.05	0.00	0.00	0	0	73,329	0	3,081	76,410

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe			Cro drai need	0	Total o	cost (BDT '	2000) 2012	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
9	0.6465	30.12%	NILPHAMARI	NILPHAMARI-S	173642018	Nilphamari-Jaldhaka R&H road at Kachukata Bondor to Nilphamari-Domar R&H road via Ramgonj Bondor.	15.15	11.75	3.40	0.00	0.00	0	0	122,715	0	4,965	127,680
			NILPHAMARI DISTRICT			6	47.97	38.92	9.05	0.00	0.00	0	0	382,039	0	15,772	397,760
23	0.5875		PANCHAGARH	BODA		Maidandighi GC - Bottoli G.C Road.	13.00	10.75	2.25	0.00	0.00	0	0	102,258	0	4,167	106,425
64	0.4826	19.62%	PANCHAGARH	BODA	177252008	Jorpakuri R&H - Panchpir Manograme GC	6.73	2.62	4.12	0.00	0.00	0	0	52,938	0	2,157	55,096
40	0.5316	24.84%	PANCHAGARH	DEBIGANJ	177342009	Saldanga R&H at Gp School - Shakoa GC	3.80	2.40	1.40	0.00	0.00	0	0	28,751	0	1,218	29,969
15	0.6262	38.44%	PANCHAGARH	PANCHAGARH-S	177732007	Panchagarh Barister Institute - Goaljharhat via Amtola Road.	13.00	5.43	7.57	0.00	0.00	0	0	102,258	0	4,167	106,425
17	0.6216	31.41%	PANCHAGARH	PANCHAGARH-S		Chaklahat GC - Harivasha hat GC Road via Debijadu Pry. School road	7.15	7.09	0.06	0.00	0.00	0	0	56,242	0	2,292	58,534
47	0.5150	19.38%	PANCHAGARH	TETULIA	177902006	Panchagarh-Banglabandha R&H (Dargashing) - Shalbahan GC	4.01	4.01	0.00	0.00	0.00	0	0	30,340	0	1,285	31,625
			PANCHAGARH DISTRICT	·		6	47.69	32.30	15.40	0.00	0.00	0	0	372,787	0	15,288	388,074
37	0.5366		RANGPUR	GANGACHARA	185272002	Gangachara UZHQ (Near College)-Paglapir GC Via Birabarihat	8.93	4.32	4.61	0.00	0.00	0	0	72,333	0	2,927	75,260
-			RANGPUR	KAUNIA		Mahigonj Pawtana (Damurchakla)-Nabdigonj Tapamodhupur GC (Kaunia Portaion)	1.75	1.75	0.00	0.00		0	2	14,175	747	574	15,495
34	0.5491	17.29%	RANGPUR	KAUNIA		R&H (Bitalergunti)-Barodargha GC Rd.	6.10	5.79	0.31	0.00	0.00	0	0	47,586	0	1,999	49,585
57	0.4926	20.67%	RANGPUR	MITHAPUKUR	185582009	Bairagigonj Busstand NHW to Ranipukur Via Dhap Bazar.	8.60	4.60	4.00	0.00	0.00	10	25	67,089	13,032	2,819	82,939
3	0.7728	57.52%	RANGPUR	PIRGACHA		Chowdhurani GC-Sundarganj UZHQ (Part)	8.70	3.13	5.57	0.00	0.00	0	11	70,470	4,310	2,851	77,631

	Score	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ice Type Decembe	· /		Cro drain needs	nage	Total c	ost (BDT '	000) 2012	2 Prices
Ranking	Ranking Sco							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
2	0.7976	53.72%	RANGPUR	PIRGANJ	185762010	Bhendabari GC to Nawabgonj GC via Pirerhat-Tukuria-Katchdahergh at	12.40	10.43	1.97	0.00	0.00	0	4	96,732	1,494	4,064	102,290
4	0.6864	36.96%	RANGPUR	PIRGANJ	185762009	Chatra GC-Raniganj GC	3.00	3.00	0.00	0.00	0.00	0	3	24,300	1,120	983	26,403
			RANGPUR DISTRICT			7	49.48	33.02	16.46	0.00	0.00	10	45	392,685	20,702	16,217	429,604
32	0.5540	28.53%	THAKURGAON	BALIADANGI	194082004	Lahiri G.C-Ramnath G.C via Chowrangi hat Road	7.90	6.85	1.05	0.00	0.00	0	0	62,141	0	2,532	64,674
52	0.5055	19.38%	THAKURGAON	BALIADANGI		Kalomagh G.C-Neckmord Hat Via Bishrampur Road	11.38	8.76	2.62	0.00	0.00	0	12	89,515	4,678	3,648	97,841
5	0.6638	43.08%	THAKURGAON	PIRGANJ	194822007	Nakkatihat GC-Sinua RHD Road.	4.50	4.11	0.00	0.39	0.00	0	0	34,047	0	1,443	35,490
		33.88%	THAKURGAON	RANISANKAIL		Nekmord College R&H-Moharaja GC Road	6.00	6.00	0.00	0.00	0.00	0	0	47,196	0	1,923	49,119
		22.03%		RANISANKAIL		Mirdangihat R&H-Katiharhat Road	9.20	7.95	0.00	1.25	0.00	0	0	72,367	0	2,949	75,316
89	0.3975	14.18%	THAKURGAON	THAKURGAON-S		Parpugi RHD-Neckmorad GC Road.	6.80	2.58	4.22	0.00	0.00	2	9	53,489	4,081	2,180	59,750
		•	THAKURGAON DISTRICT			6	45.78	36.26	7.89	1.64	0.00	2	21	358,755	8,759	14,675	382,189
			TOTAL			100	882.80	591.36	264.56	25.29	1.60	2881	216	7,336,476	1,285,545	292,686	8,914,707

Annex 16-13

The total span of cross-drainage structures required is the sum of the existing gaps plus the existing structures which are damaged and must be replaced Additional UZR appraised to meet target of 'one road per Upazila' Notes:

	tore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Su	rface Typ Decemb		,		oss- nage s (m)	Total co	st (BDT '	'000) 201	2 Prices	
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total	
1	0.8602	56.81%	NILPHAMARI	JALDHAKA	173363005	Jaldhaka Hat G.C-Mirgonj U.P. H/Q Via Kathali U.P.	9.00	9.00	0.00	0.00	0.00		5	56,331	1,867	2,950	61,148	
2	0.7392	55.00%	JAMALPUR	SARISHABARI	339853011	Pogoldigha U/P-Goramara Bazer via Malipara	11.80	11.80	0.00	0.00	0.00	12	72	76,523	33,919	3,987	114,429	
3			JAMALPUR	ISLAMPUR		Kandarchar Bazer Rd.	7.60	7.60	0.00	0.00	0.00	15		49,286	5,783	2,568	57,637	
4			NILPHAMARI	DIMLA		Chhotopul bazar-Naotara U.P Office Rd	6.00	6.00	0.00	0.00	0.00			37,554	0	1,966	39,520	
5	0.6679	61.17%	NETROKONA	MADAN	372563005	Teosree GC-Nayekpur UP rd.	2.93	2.93	0.00	0.00	0.00			19,197	0	999	20,196	'nn
6	0.6627	37.90%	PANCHAGARH	PANCHAGARH-S	177733003	Modelhat GC To Harivasha UP road via Bangpukurihat & Jinnathpara road	9.60	9.52	0.00	0.08	0.00	1		58,483	223	3,077	61,783	S
7	0.6603	40.00%	LALMONIRHAT	ADITMARI	152023031	Amana Bazer UZR-2 to Dulali Bazer.	6.28	6.28	0.00	0.00	0.00			39,307	0	2,058	41,365	-fr Fi
8	0.6601	35.20%	NILPHAMARI	SAYEDPUR	173853009	Banirhat-Shibarhat.	5.20	5.20	0.00	0.00	0.00			32,547	0	1,704	34,251	inal
9	0.6481	42.70%	SHERPUR	SHERPUR-S	389883003	Lasmanpur RHD-Kamarerchar GC Road	9.60	7.90	1.70	0.00	0.00	96		62,256	38,765	3,243	104,264	of Final Report
10	0.6453	40.00%	RANGPUR	PIRGANJ		Chatra-Dheparhat via Kabilpur UP office.	7.85	5.40	2.45	0.00	0.00			63,585	0	2,573	66,158	Ā
11			DINAJPUR	KHANSHAMA		Pakerhat GC to Jakirgonj Bazar Via Sheltu Shah Madrasa.	7.00	6.81	0.19	0.00	0.00	1		52,346	371	2,244	54,961	
12	0.6350	44.20%	DINAJPUR	FULBARI	127383001	Rangamati hat-Chaurait More via Melabari hat & Aladipur UP Road.	7.50	5.11	2.39	0.00	0.00	11		45,690	4,081	2,404	52,175	
13	0.6294	24.40%	JAMALPUR	DEWANGANJ	339153012	Bahadurabad UP-Shekpara Bazar	3.00	3.00	0.00	0.00	0.00	45		19,455	18171	1,014	38,640	
14	0.6289	31.10%	RANGPUR	PIRGACHA		Pirgacha Paccar Matha-Bramanikunda Bazar UZR	5.20	5.20	0.00	0.00	0.00	3	7	32,547	3,734	1,704	37,985	
15	0.6234	36.70%	DINAJPUR	KAHAROL	127563001	Bogdoirhat U.P-BaishpurhatVia Uthrain Rd.	12.00	12.00	0.00	0.00	0.00			73,104	0	3,847	76,951	
16	0.6073	37.10%	JAMALPUR	MELENDAH	339613003	Melandah R/Station-Shihata via Nayanagar UP Road	6.20	2.04	4.16	0.00	0.00			49,581	0	2,095	51,676	
17	0.6064	31.90%	MYMENSINGH	BHALUKA	361133005	Mollikbari bazar(UP)-Kachina Bazar.	10.80	8.50	2.30	0.00	0.00			87,246	0	3,682	91,108	
18	0.6051	31.40%	RANGPUR	GANGACHARA	185273010	Gongachara-Tista Riverghat via Dhamur Non Govt.Pry.(Mohipur bazar)	3.50	2.57	0.94	0.00	0.00			21,907	0	1,147	23,054	
19	0.6022	31.30%	PANCHAGARH	DEBIGANJ	177343004	Pamuli UP Office - Shamlur Hat Via Kochabari Hat	6.03	4.78	1.25	0.00	0.00			36,735	0	1,933	38,668	

Table A16-3 List of UNR that passed selection and appraisal procedure - by RANKING

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Su	rface Typ Decemb			Cro drai need	nage	Total cos	st (BDT '	000) 201	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
20	0.6016	33.15%	DINAJPUR	GHORAGHAT		RHD at Damodarpur (Bhaduria GC)-Balahar bazar via Palsha UP Office Road	12.45	12.45	0.00	0.00	0.00			75,845	0	3,991	79,836
21	0.5993	23.70%	NILPHAMARI	NILPHAMARI-S		Khokshabari U.P.Office-Bhabanigonj G.C. via Monagonj hat	7.50	7.50	0.00	0.00	0.00			46,943	0	2,458	49,401
22				HALUAGHAT	361243017	Gazirvita UP office-Badshah Bazar via Charbangalia Bazar.	7.10	6.65	0.45	0.00	0.00	50		57,475	20,095	2,421	79,990
23			RANGPUR	MITHAPUKUR		Bairatirhat GC (Mirzapur UP)-Sherudanga Bazar	5.35	5.35	0.00	0.00		5		33,486	1,680	1,753	36,919
24				BODA		Sakowa UP - Boirati Panchpir GC Road.	7.20	6.50		0.00			4	,	1,484	2,308	47,654
25			DINAJPUR	BIRGANJ		Dalua bazar (NHW)-Mahamadpur UP Office.	4.56	4.56	0.00	0.00				27,749	0	1,460	29,209
26	0.5896	28.77%	THAKURGAON	RANISANKAIL		Kashipur UP (Moharaja)-Dholpukur hat Road (Up to FRB road 100.00m Bridge)	5.00	5.00	0.00	0.00	0.00			30,460	0	1,603	32,063
27	0.5881	37.50%	TANGAIL	DHANBARI	393963019	Kendua-Paiska road	4.50	4.50	0.00	0.00	0.00			29,183	0	1,520	30,703
28			KURIGRAM			Jomyonirhat UP-Bhurangamari(Bus stand)	3.15	3.15	0.00	0.00	0.00		8	19,716	2,987	1,032	23,735
29	0.5822	27.60%	MYMENSINGH	FULBARIA	361203003	Dewkhola-Andhariapara via Bairagir bazar Road.	9.15	6.99	1.98	0.18	0.00	2		74,069	768	3,120	77,957
30	0.5789	28.80%	GAIBANDHA	GAIBANDHA-S	132243003	Shahar Bazar-Shahapara UP office	5.88	5.88	0.00	0.00	0.00			36,803	0	1,927	38,730
31	0.5773	24.10%	MYMENSINGH	TRISHAL		Amirabari UP-Mirder Bazar road	6.08	6.08	0.00	0.00	0.00	38		39,836	14,596	2,073	56,505
32				PIRGANJ		Sengaon UP Office-Jaborhat GC Via Nashibganj GC, Bolaihat, Tamlaidighi Road.	12.40	9.40	3.00	0.00				75,541	0	3,975	79,516
33						Dapunia UP-Montala Bazar Rd. via Shorshamala Bazar	6.80	6.80		0.00	0.00	30		44,554	12,057	2,319	58,929
34			RANGPUR	KAUNIA		Kaunia GC-Haragach UP Office (Bakultala Bazar).	9.00	6.90	2.10	0.00			5		1,867	2,950	61,148
35			NILPHAMARI			Chandkhana UP Office-Kellabarirhat via Darjitari, Burirhat & Chandkhana ghat.	10.55	9.45	1.10	0.00		111	-100	,	4,107	3,457	73,597
36			RANGPUR	BADARGANJ		Bisnupur UP-Matherhat via Kaligonj	17.00	14.48	2.53	0.00	0.00			106,403	0	5,571	111,974
37	0.5572	28.67%	JAMALPUR	BAKSHIGANJ	339073004	Bakshiganj-Jinnah bazar Road.	4.00	2.10	0.00	1.90	0.00			25,940	0	1,351	27,291
38	0.5551	17.90%	MYMENSINGH	NANDAIL		Chandipasha U.P-Shialdhara Bazar Road via Bashati bazar	9.60	9.60	0.00	0.00	0.00			62,899	0	3,273	66,173

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Su	rface Typ Decemb				oss- nage s (m)	Total cos	st (BDT '	000) 201	2 Prices	
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total	
39	0.5543	40.50%	KISHOREGANJ	TARAIL	348923004	Thana H.Q-Dhamiha Bazer	3.54	3.54	0.00	0.00	0.00			23,194	0	1,207	24,401	
40			KURIGRAM	CHILMARI		Thanahat UP office at Gabtola to Ranigonj UPC.	6.00	3.70	2.30	0.00	0.00			37,554	0	1,966	39,520	
41	0.5449	14.80%	MYMENSINGH	PHULPUR	361813022	Balia UP-Moishakanda Bazar Road.	4.58	4.58	0.00	0.00	0.00			30,008	0	1,562	31,570	
42			KURIGRAM	ROWMARI		Dantbhanga Feeder(Shalur more)Kazaikata hat	4.70	4.70	0.00	0.00	0.00		10	29,417	3,734	1,540	34,692	
43			LALMONIRHAT			Kazir hat to Chandrapur UP Via Chalbala UP.	6.90	4.20	2.70	0.00				43,187	0	2,261	45,449	
						Mohendranaga UP to Mustafirhat UZR Via Burir Bazer Rice mill.	10.00	8.10		0.00				81,000	0	3,277	84,277	ъ
			PANCHAGARH			Tetulia Chowrasta Bazar - T&T Office via Subregister Office Road.	1.42	1.15	0.27	0.00	0.00		4	8,651	1,484	455	10,590	nnex
			KURIGRAM			Nageswari Gc-Hashnabad UP office.	7.50	3.80	3.70	0.00	0.00		6	46,943	2,240	2,458	51,641	(es
47	0.5329	22.20%	KURIGRAM	FULBARI	149183009	Fulbari UP office (Food Godown)-Shaheb Bazar WAPDA Embt.	2.95	1.75	1.20	0.00	0.00			18,464	0	967	19,431	Annexes of Final Report
48	0.5328	27.10%	DINAJPUR	BOCHAGANJ	127213002	Mushidhat-Rangaon UP office	5.46	4.18	1.28	0.00	0.00			33,262	0	1,750	35,013	Rej
49	0.5305	25.19%	GAIBANDHA	GOBINDAGANJ	132303003	Shakahar U.P-Bager hat GC (Ghoraghat Mazar) Via Deghir hat	8.10	7.70	0.40	0.00	0.00			50,698	0	2,655	53,353	port
50	0.5287	23.90%	LALMONIRHAT	HATIBANDHA	152333010	Dakalibandha to Fepranogre(Dauwabari up) via Ketkibari	11.40	10.15	1.25	0.00	0.00			71,353	0	3,736	75,089	
51	0.5268	20.08%	LALMONIRHAT			Patgram UP-Varverirhat Via Kawamarihat & Kalirhat.	11.85	11.35	0.50	0.00	0.00	32	198	74,169	90,229	3,884	168,282	
						Kalibari GC at cinema hall-chattra UP office Road	9.50	8.40	1.10	0.00	0.00			50,698	0	2,655	53,353	
53			THAKURGAON			Dhantala UP Office(Dolua)-Khochabari hat via Banagaon Junior Girls school Road	3.20	3.20		0.00	0.00			19,494	0	1,026	20,520	
54			KURIGRAM			Tabakpur UP-Adarsa bazar.	6.00	5.10	0.90	0.00	0.00		18	37,554	6,721	1,966	46,242	
55			TANGAIL	SHAKHIPUR		Jadabpur UP (Nalua)-salda Bazar road via beltoil	14.01	11.00	3.01	0.00	0.00			117,852	0	4,732	122,584	
			DINAJPUR			Jhanjira hat-Torongini-Ramdobi hat.	5.20	5.20	0.00	0.00	0.00	7		31,678	2,597	1,667	35,942	
57	0.5219	32.96%	DINAJPUR	BIROL	127173001	Birol UZ H/Q to Pakurahat via Vandara UP Office & Balander Pri. School.	16.40	8.06	8.34	0.00	0.00			99,909	0	5,257	105,166	
58	0.5189	21.11%	GAIBANDHA	SUNDARGANJ	132913006	Dhopadanga U.PSreePur	8.12	8.12	0.00	0.00	0.00			50,848	0	2,663	53,511	

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Su	rface Typ Decemb			Cro drain need	nage	Total cos	st (BDT '	2000) 201	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
						UP.HQ.(Dharmapur FRA)											
59	0.5187	21.23%	PANCHAGARH	ATWARI		Dhamore UP - Sonapatila Hat Via Kiron Babu Hat Road	6.42	6.42	0.00	0.00	0.00			39,111	0	2,058	41,169
60			TANGAIL	GHATAIL		Ghatail westpara-Taragonj Bazar-Anehola UP Office Rd.	11.00	7.96	3.04	0.00	0.00	70		71,335	28,266	3,716	103,317
61				DHOBAURA		Dhobaura up-Ghosegoan up Rd [Started from Hospita]	6.75	2.97	3.78		0.00			44,226	0	2,302	46,528
62			RANGPUR	RANGPUR-S		UZHQ to Nekirhat Bazar via Horidebpur UPC	17.29	14.82	1.57	0.90	0.00	1	114		45,115	5,667	158,999
63			SHERPUR	SREEBORDI		Kakilakura U.PSankanda Battali Bazar Road.	8.00	8.00	0.00	0.00	0.00			51,880	0	2,703	54,583
64	0.5054	20.43%	DINAJPUR	BIRAMPUR		Katla UP-Ayra bazar rd via Patomchara , Bhaigor BDR camp & Chapra hat	14.10	14.10	0.00	0.00	0.00			85,897	0	4,520	90,417
65	0.5018	22.17%	KURIGRAM	KURIGRAM-S	149523006	Pangachi-Bhitorbond road.	9.40	1.75	7.65	0.00	0.00			58,835	0	3,081	61,915
66				GOURIPUR		AchintapurUPHQ to Mohishati Bazar.	14.83	12.38	2.45	0.00	0.00	48		120,049	'	5,057	144,397
67	0.4984	21.20%	DINAJPUR	HAKIMPUR		Lohachara at Upazila Road-Hariharpurhat at Upazila Road via Boaldar UP office	15.35	13.75	1.60	0.00	0.00	4		114,787	1,558	4,921	121,266
68			DINAJPUR	NAWABGANJ		Nandanpur to Kapaldara via Binodnagar	7.20	6.83	0.37	0.00	0.00			43,862	0	2,308	46,170
69			DINAJPUR	CHIRIRBANDAR		Fatagonjpur UP office to Dangarhat via Hasimpur	7.90	7.90	0.00	0.00	0.00		30	- , .	11,130	2,532	61,789
70				KATIADI		Banagram UP H/QMadhyapara bazar Rd.	5.30	5.30	0.00	0.00	0.00			34,726	0	1,807	36,533
71			JAMALPUR	JAMALPUR-S		Digpaith U.P to Ram Krishnapur bazar Road Via Chanpur bazar.	11.20	6.45	4.75	0.00	0.00	5		72,632	1,889	3,784	78,305
72			GAIBANDHA	FULCHARI		Udakhali U.P H/Q-Udakhali Bazar	3.98	3.98	0.00	0.00	0.00			24,911	0	1,304	26,215
73				MUKTAGACHA		Mankon U.p Office-Baragram up office Road(Mogoltola-Bazar)		4.80		0.00		3		31,450	1,152	1,637	34,239
74			SHERPUR	JHENAIGATI		Jhinaigati GC-Sribordi RHD Road via Garjaripa UP.	9.44	4.26	5.18	0.00	0.00			61,218	0	3,189	64,408
75			MYMENSINGH			Sipan-Banagram Bazar Rd via Gaffargaon UP & Hatikhola bazar.	6.20	5.70		0.00		5		50, 189	,	2,114	54,224
76				AUSTAGRAM		Kastul UP office-Nikli GC Rd.	5.42	5.42	0.00	0.00	0.00	136		35,512	54,658	1,848	92,018
77	0.4816	12.90%	MYMENSINGH	ISHWARGANJ	361313006	Mogtola U.P-Modhupur Bazar Road.	6.15	4.45	1.70	0.00	0.00			40,295	0	2,097	42,392

-	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Su	rface Typ Decemb			drai	oss- nage s (m)	Total co	st (BDT '	000) 201	2 Prices	
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total	
78	0.4805	14.15%	THAKURGAON	HARIPUR		Bakua UP Office-Chapdahat Road.Via Buzrok,Singhari.	10.45	10.45	0.00	0.00	0.00			63,661	0	3,350	67,011	
79	0.4776	19.15%	THAKURGAON	THAKURGAON-S	194943015	Fershadangi hat-Islamnagar RHD Road.	7.00	5.67	1.33	0.00	0.00		4	42,644	1,484	2,244	46,372	
80	0.4770	15.76%	DINAJPUR	PARBATIPUR		R & H Road at Jakerganj-Chaklardanga hat via Sundarpir, Gomostapara ,Belichandi UP	9.60	9.35	0.00	0.25	0.00		6	58,483	2,226	3,078	63,787	
81	0.4719	30.20%	NETROKONA	NETRAKONA-S	372743016	Medni UP office-Fakirer bazar Ferryghat via Panchpai Reg. Pry. School Road	6.15	5.55	0.60	0.00	0.00			40,295	0	2,097	42,392	
82			NETROKONA	KHALIAJURI		Satgaon Bazar-Chakua UP (Asadpur Ferry Ghat) road via khalapara	6.31	6.31	0.00	0.00	0.00			41,343	0	2,152	43,495	Annexes
83			NETROKONA			Langura UP Office-Rahimpur Bazar via Nalchapra Bz. Rd.	7.20	4.90	2.30	0.00	0.00			61,377	0	2,455	63,792	
84				HOSSAINPUR		Char Pumdi bazar-Pumdi UP H/Q Road	4.45	3.85	0.60	0.00	0.00	7	34	,	15,671	1,517	46,345	Ť
85			SHERPUR	NAKLA		Ganpaddi UP-Bhurdi bazar Rd.	2.00	2.00	0.00	0.00	0.00	11		12,970	4,241	676	17,886	inal
86			TANGAIL	DELDUAR		Pathrail-UP Office-Rupshi Cattle Hat road via Bhabki.	5.87	5.07	0.80	0.00	0.00	30		38,067	12,114	1,983	52,164	of Final Report
87	0.4485	19.60%	KISHOREGANJ	ITNA		Dhanpur UP-Janatagonj Bazar Road	11.80	10.75	0.00	0.00	1.05	5		77,314	1,921	4,023	83,258	ă
88			TANGAIL	BASAIL		Nayerhat-Kawaljani UP Office via Bartha.	5.80	5.05	0.75	0.00	0.00			37,613	0	1,960	39,573	
89	0.4463	27.80%	TANGAIL	MADHUPUR		Charaljani-Mirjabari Road	8.80	2.38	6.42	0.00	0.00			57,068	0	2,973	60,041	
90	0.4380	22.14%	TANGAIL	GOPALPUR		Syedpur-Nagdasimla UP office	2.13	1.55	0.58	0.00	0.00			13,813	0	720	14,533	
91	0.4313	17.31%	TANGAIL	KALIHATI	393473004	Kokdohara-Pathalia Road via Bagutia	16.89	14.89	2.00	0.00	0.00	112		109,532	45,226	5,706	160,464	
92	0.4307	17.60%	NETROKONA	DURGAPUR		Durgapur UP office(Attraikhali)-Fanda bazar rd.	3.70	3.70	0.00	0.00	0.00	45		29,952	18,086	1,262	49,299	
93			TANGAIL	TANGAIL-S		Tangail HQ (Bailla)-Gala UP via Punch Bethair Bazar Road	9.00	4.50	4.50	0.00	0.00			75,735	0	3,041	78,776	
94			NETROKONA	KENDUA		Goradoba UP office-Bashati bazar via Biddha ballab and Goradoba Bazar	6.95	6.95	0.00	0.00	0.00			56,276	0	2,370	58,647	
95			KISHOREGANJ	MITHAMOIN		Mithamoin Noya hati-Dhaki UP Office Rd.	9.59	9.12	0.00	0.00	0.48	128		62,834	51,443	3,270	117,547	
96				BHAIRAB		Shimulkandi UP H.Q-Ananda Bazar Rd.	4.71	3.00	1.71	0.00	0.00			30,860	0	1,606	32,466	
97				PAKUNDIA	348793002	Tarakandi bazar-Char Faradi UP Rd.	5.79	4.60	1.19	0.00	0.00			37,949	0	1,975	39,924	
98	0.3682	18.54%	NETROKONA	PURBADHALA	372833015	Netrokona (Hatkhola bazar)-Dhala	3.50	2.06	1.44	0.00	0.00			22,932	0	1,193	24,125	

	core	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Su	rface Typ Decemb			Cro drain needs	nage	Total co	st (BDT	'000) 201	2 Prices
Ranking	Ranking Sc							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
						Mulgaon UP road											
99	0.3637	18.15%	KISHOREGANJ	KARIMGANJ		Kadirjangal UP H/Q-Nilganj GC Road via Hatrapara Bazar	5.80	4.52	0.00	1.28	0.00	10		38,002	3,687	1,978	43,667
100			NETROKONA	MOHANGANJ		Mohonganj Upazila H/Q (Satur)-Maghan Shiadhar UP rd.	3.85	2.85	0.62	0.00	0.38			25,225	0	1,313	26,538
101	0.3600	15.79%	GAIBANDHA	SAGHATA		Saghata GC-Kachua UP Office via Ullah Sonatala Bazar	7.40	0.75	6.65	0.00	0.00			46,317	0	2,425	48,742
102	0.3570	13.41%	NETROKONA	ATPARA		Sarmusia U.P. Office-Krishnapur bazar road.	5.40	5.40	0.00	0.00	0.00	2		35,381	768	1,841	37,990
103	0.3530	12.56%	TANGAIL	MIRZAPUR		Bhabkhanda Bazar-Khagutia bazar Anaitola UP Road	5.06	1.97	3.09	0.00	0.00	12		32,814	4,626	1,710	39,150
104	0.3420	27.08%	KISHOREGANJ	KISHOREGANJ-S	348493002	Jalalpur bazar-Majkhapanj UP Rd.	3.28	0.79	2.49	0.00	0.00			21,491	0	1,118	22,609
105	0.2792	13.32%	KISHOREGANJ	KULIARCHAR	348543003	Kuliarchar UZHQ to Nowapara Bazar	4.10	1.34	2.30	0.46	0.00			26,863	0	1,398	28,261
106	0.2590	12.82%	KISHOREGANJ	BAJITPUR	348063001	Ujanchar bazar-Halimpur UP Rd.	7.06	2.86	4.20	0.00	0.00			46,257	0	2,407	48,665
106 U	NR						791.56	652.35	132.25	5.05	1.91	1,092	425	5,241,124	600,033	262,387	6,103,543

Notes: The total span of cross-drainage structures required is the sum of the existing gaps plus the existing structures which are damaged and must be replaced Additional UNR appraised to meet target of 'one road per Upazila'

	ore							Su	rface Typ Decemb			Cro drai need	nage	Total c	ost (BDT '	000) 2012	Prices
Ranking	Ranking Score	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
37	0.5572	28.67%	JAMALPUR	BAKSHIGANJ	339073004	Bakshiganj-Jinnah bazar Road.	4.00	2.10	0.00	1.90	0.00			25,940	0	1,351	27,291
13	0.6294	24.40%	JAMALPUR	DEWANGANJ		Bahadurabad UP-Shekpara Bazar	3.00	3.00	0.00	0.00	0.00	45		19,455	18171	1,014	38,640
3	0.7126	39.50%	JAMALPUR	ISLAMPUR	339293001	Char Goalini UP-Porarchar Bazar via Kandarchar Bazer Rd.	7.60	7.60	0.00	0.00	0.00	15		49,286	5,783	2,568	57,637
71	0.4902	24.26%	JAMALPUR	JAMALPUR-S	339363004	Digpaith U.P to Ram Krishnapur bazar Road Via Chanpur bazar.	11.20	6.45	4.75	0.00	0.00	5		72,632	1,889	3,784	78,305
16	0.6073	37.10%	JAMALPUR	MELENDAH		Nayanagar UP Road	6.20	2.04	4.16	0.00	0.00			49,581	0	2,095	51,676
2	0.7392	55.00%	JAMALPUR	SARISHABARI	339853011	Pogoldigha U/P-Goramara Bazer via Malipara	11.80	11.80	0.00	0.00	0.00	12	72	76,523	33,919	3,987	114,429 Annexes 367,977 92,018 48,665 32,466 32,466 92,014
			JAMALPUR DISTRICT			6	43.80	32.99	8.91	1.90	0.00	77	72	293,417	59,762	14,798	<u>367,977</u> ලි ද
76	0.4827	18.96%	KISHOREGANJ	AUSTAGRAM	348023002	Kastul UP office-Nikli GC Rd.	5.42	5.42	0.00	0.00	0.00	136		35,512	54,658	1,848	92,018
106	0.2590	12.82%	KISHOREGANJ	BAJITPUR		Ujanchar bazar-Halimpur UP Rd.	7.06	2.86	4.20	0.00	0.00			46,257	0	2,407	48,665 a
			KISHOREGANJ	BHAIRAB	348113003	Shimulkandi UP H.Q-Ananda Bazar Rd.	4.71	3.00	1.71	0.00	0.00			30,860	0	1,606	32,466 epo
84	0.4537	29.86%	KISHOREGANJ	HOSSAINPUR		Char Pumdi bazar-Pumdi UP H/Q Road	4.45	3.85	0.60	0.00	0.00	7	34	29,156	15,671	1,517	46,345
87	0.4485	19.60%	KISHOREGANJ	ITNA		Dhanpur UP-Janatagonj Bazar Road	11.80	10.75	0.00	0.00	1.05	5		77,314	1,921	4,023	83,258
			KISHOREGANJ	KARIMGANJ		Kadirjangal UP H/Q-Nilganj GC Road via Hatrapara Bazar	5.80	4.52	0.00	1.28	0.00	10		38,002	3,687	1,978	43,667
70	0.4927	36.49%	KISHOREGANJ	KATIADI		Banagram UP H/QMadhyapara bazar Rd.	5.30	5.30	0.00	0.00	0.00			34,726	0	1,807	36,533
104	0.3420	27.08%	KISHOREGANJ	KISHOREGANJ-S	348493002	Jalalpur bazar-Majkhapanj UP Rd.	3.28	0.79	2.49	0.00	0.00			21,491	0	1,118	22,609
105	0.2792	13.32%	KISHOREGANJ	KULIARCHAR		Kuliarchar UZHQ to Nowapara Bazar	4.10	1.34	2.30	0.46	0.00			26,863	0	1,398	28,261
95	0.4128	14.70%	KISHOREGANJ	MITHAMOIN	348593001	Mithamoin Noya hati-Dhaki UP Office Rd.	9.59	9.12	0.00	0.00	0.48	128		62,834	51,443	3,270	117,547
97	0.3710	17.80%	KISHOREGANJ	PAKUNDIA	348793002	Tarakandi bazar-Char Faradi UP Rd.	5.79	4.60	1.19	0.00	0.00			37,949	0	1,975	39,924
39	0.5543	40.50%	KISHOREGANJ	TARAIL	348923004	Thana H.Q-Dhamiha Bazer	3.54	3.54	0.00	0.00	0.00			23,194	0	1,207	24,401
			KISHOREGANJ DISTRICT			12	70.84	55.09	12.49	1.74	1.52	285	34	464,157	127,381	24,155	615,693

Table A16-4 List of UNR that passed selection and appraisal procedure - by DISTRICT

	Score							Su	rface Typ Decemb			-	oss- nage s (m)	Total c	cost (BDT '(000) 2012	Prices	
Ranking	Ranking Sc	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total	
17	0.6064	31.90%	MYMENSINGH	BHALUKA	361133005	Mollikbari bazar(UP)-Kachina Bazar.	10.80	8.50	2.30	0.00	0.00			87,246	0	3,682	91,108	
61	0.5161	16.66%	MYMENSINGH	DHOBAURA	361163001	Dhobaura up-Ghosegoan up Rd [Started from Hospita]	6.75	2.97	3.78	0.00	0.00			44,226	0	2,302	46,528	
29	0.5822	27.60%	MYMENSINGH	FULBARIA	361203003	Dewkhola-Andhariapara via Bairagir bazar Road.	9.15	6.99	1.98	0.18	0.00	2		74,069	768	3,120	77,957	
75	0.4884	14.19%	MYMENSINGH	GAFFARGAON	361223007	Sipan-Banagram Bazar Rd via Gaffargaon UP & Hatikhola bazar.	6.20	5.70	0.50	0.00	0.00	5		50, 189	1,921	2,114	54,224	
66	0.4989	14.23%	MYMENSINGH	GOURIPUR	361233028	AchintapurUPHQ to Mohishati Bazar.	14.83	12.38	2.45	0.00	0.00	48		120,049	19,291	5,057	144,397	Þ
22	0.5974	27.50%	MYMENSINGH	HALUAGHAT	361243017	Gazirvita UP office-Badshah Bazar via Charbangalia Bazar.	7.10	6.65	0.45	0.00	0.00	50		57,475	20,095	2,421	79,990	nnexe
77	0.4816	12.90%	MYMENSINGH	ISHWARGANJ	361313006	Mogtola U.P-Modhupur Bazar Road.	6.15	4.45	1.70	0.00	0.00			40,295	0	2,097	42,392	Annexes of Final Report
			MYMENSINGH	MUKTAGACHA		Mankon U.p Office-Baragram up office Road(Mogoltola-Bazar)	4.80	4.80	0.00	0.00	0.00	3		31,450	1,152	1,637	34,239	inal F
			MYMENSINGH	MYMENSINGH-S		Dapunia UP-Montala Bazar Rd. via Shorshamala Bazar	6.80	6.80	0.00	0.00	0.00	30		44,554	12,057	2,319	58,929	Repor
			MYMENSINGH	NANDAIL		Chandipasha U.P-Shialdhara Bazar Road via Bashati bazaar	9.60	9.60	0.00	0.00	0.00			62,899	0	3,273	66,173	-
			MYMENSINGH	PHULPUR		Balia UP-Moishakanda Bazar Road.	4.58	4.58	0.00	0.00	0.00			30,008	0	1,562	31,570	
32	0.5773		MYMENSINGH MYMENSINGH	TRISHAL	361943015	Amirabari UP-Mirder Bazar road	6.08 92.84	6.08 79.50	0.00	0.00 0.18	0.00 0.00	38 176	0	39,836 682,475	14,596 69,880	2,073 31,656	56,505 784,011	l
			DISTRICT									170	Ū	<i>.</i>		,	<i>.</i>	_
102	0.3570	13.41%	NETROKONA	ATPARA		Sarmusia U.P. Office-Krishnapur bazar road.	5.40	5.40	0.00	0.00	0.00	2		35,381	768	1,841	37,990	
92	0.4307	17.60%	NETROKONA	DURGAPUR	372183012	Durgapur UP office(Attraikhali)-Fanda bazar rd.	3.70	3.70	0.00	0.00	0.00	45		29,952	18,086	1,262	49,299	
83	0.4605	28.20%	NETROKONA	KALMAKANDA	372403010	Langura UP Office-Rahimpur Bazar via Nalchapra Bz. Rd.	7.20	4.90	2.30	0.00	0.00			61,377	0	2,455	63,792	
			NETROKONA	KENDUA	372473005	Goradoba UP office-Bashati bazar via Biddha ballab and Goradoba Bazar	6.95	6.95	0.00	0.00	0.00			56,276	0	2,370	58,647	
82	0.4637	31.26%	NETROKONA	KHALIAJURI	372383007	Satgaon Bazar-Chakua UP (Asadpur Ferry Ghat) road via	6.31	6.31	0.00	0.00	0.00			41,343	0	2,152	43,495	

	Score							Su	rface Typ Decemb			Cro drai need	nage	Total c	ost (BDT '	000) 2012	Prices
Ranking	Ranking Sc	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
						khalapara											
5	0.6679	61.17%	NETROKONA	MADAN	372563005	Teosree GC-Nayekpur UP rd.	2.93	2.93	0.00	0.00	0.00			19,197	0	999	20,196
100	0.3625	13.64%	NETROKONA	MOHANGANJ	372633003	Mohonganj Upazila H/Q (Satur)-Maghan Shiadhar UP rd.	3.85	2.85	0.62	0.00	0.38			25,225	0	1,313	26,538
			NETROKONA	NETRAKONA-S	372743016	Medni UP office-Fakirer bazar Ferryghat via Panchpai Reg. Pry. School Road	6.15	5.55	0.60	0.00	0.00			40,295	0	2,097	42,392
98	0.3682	18.54%	NETROKONA	PURBADHALA	372833015	Netrokona (Hatkhola bazar)-Dhala Mulgaon UP road	3.50	2.06	1.44	0.00	0.00			22,932	0	1,193	24,125
			NETROKONA			9	45.99	40.65	4.96	0.00	0.38	47	0	331,938	18,854	15,682	366,474
74	0.4885	24.90%	DISTRICT SHERPUR	JHENAIGATI	389373005	Jhinaigati GC-Sribordi RHD	9.44	4.26	5.18	0.00	0.00			61,218	0	3,189	64,408
						Road via Garjaripa UP.									-	,	- ,
			SHERPUR	NAKLA		Ganpaddi UP-Bhurdi bazar Rd.	2.00	2.00	0.00	0.00	0.00	11		12,970	4,241	676	17,886
			SHERPUR	SHERPUR-S		Lasmanpur RHD-Kamarerchar GC Road	9.60	7.90		0.00	0.00	96		62,256	38,765	3,243	17,886 104,264 54,583
63	0.5071		SHERPUR	SREEBORDI	389903013	Kakilakura U.PSankanda Battali Bazar Road.	8.00	8.00		0.00	0.00			51,880	0	2,703	54,583
			SHERPUR DISTRICT			4	29.04	22.16	6.88	0.00	0.00	107	0	188,324	43,005	9,811	241,141
88	0.4484	25.98%	TANGAIL	BASAIL	393093012	Nayerhat-Kawaljani UP Office via Bartha.	5.80	5.05	0.75	0.00	0.00			37,613	0	1,960	39,573
86	0.4497	21.33%	TANGAIL	DELDUAR	393233006	Pathrail-UP Office-Rupshi Cattle Hat road via Bhabki.	5.87	5.07	0.80	0.00	0.00	30		38,067	12,114	1,983	52,164
			TANGAIL	DHANBARI		Kendua-Paiska road	4.50	4.50		0.00	0.00			29,183	0	1,520	30,703
			TANGAIL	GHATAIL		Ghatail westpara-Taragonj Bazar-Anehola UP Office Rd.	11.00	7.96	3.04	0.00	0.00	70		71,335	28,266	3,716	103,317
			TANGAIL	GOPALPUR		Syedpur-Nagdasimla UP office	2.13	1.55	0.58	0.00	0.00			13,813	0	720	14,533
			TANGAIL	KALIHATI		Kokdohara-Pathalia Road via Bagutia	16.89	14.89	2.00	0.00	0.00	112		109,532	45,226	5,706	160,464
			TANGAIL	MADHUPUR		Charaljani-Mirjabari Road	8.80	2.38	6.42	0.00	0.00			57,068	0	2,973	60,041
103	0.3530	12.56%	TANGAIL	MIRZAPUR	393663005	Bhabkhanda Bazar-Khagutia bazar Anaitola UP Road	5.06	1.97	3.09	0.00	0.00	12		32,814	4,626	1,710	39,150
			TANGAIL	SHAKHIPUR	393853001	Jadabpur UP (Nalua)-salda Bazar road via beltoil	14.01	11.00	3.01	0.00	0.00			117,852	0	4,732	122,584
93	0.4164	19.92%	TANGAIL	TANGAIL-S	393953002	Tangail HQ (Bailla)-Gala UP via Punch Bethair Bazar Road	9.00	4.50	4.50	0.00	0.00			75,735	0	3,041	78,776

	Score							Su	rface Typ Decemb			Cro drai need	nage	Total c	cost (BDT '	000) 2012	Prices
Ranking	Ranking Sc	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
			TANGAIL			10	83.06	58.86	24.19	0.00	0.00	224	0	583,011	90,232	28,060	701,303
64	0.5054	20.43%	DISTRICT DINAJPUR	BIRAMPUR	127103002	Katla UP-Ayra bazar rd via Patomchara , Bhaigor BDR camp & Chapra hat	14.10	14.10	0.00	0.00	0.00			85,897	0	4,520	90,417
27	0.5923	30.90%	DINAJPUR	BIRGANJ	127123008	Dalua bazar (NHW)-Mahamadpur UP Office.	4.56	4.56	0.00	0.00	0.00			27,749	0	1,460	29,209
57	0.5219	32.96%	DINAJPUR	BIROL	127173001	Birol UZ H/Q to Pakurahat via Vandara UP Office & Balander Pri. School.	16.40	8.06	8.34	0.00	0.00			99,909	0	5,257	105,166
48	0.5328	27.10%	DINAJPUR	BOCHAGANJ	127213002	Mushidhat-Rangaon UP office	5.46	4.18	1.28	0.00	0.00			33,262	0	1,750	35,013
69	0.4932	18.30%	DINAJPUR	CHIRIRBANDAR	127303009	Fatagonjpur UP office to Dangarhat via Hasimpur	7.90	7.90	0.00	0.00	0.00		30	48,127	11,130	2,532	61,789
56	0.5228	26.07%	DINAJPUR	DINAJPUR-S	127643006	Jhanjira hat-Torongini-Ramdobi hat.	5.20	5.20	0.00	0.00	0.00	7		31,678	2,597	1,667	35,942
12	0.6350	44.20%	DINAJPUR	FULBARI	127383001	Rangamati hat-Chaurait More via Melabari hat & Aladipur UP Road.	7.50	5.11	2.39	0.00	0.00	11		45,690	4,081	2,404	52,175
20	0.6016	33.15%	DINAJPUR	GHORAGHAT	127433001	RHD at Damodarpur (Bhaduria GC)-Balahar bazar via Palsha UP Office Road	12.45	12.45	0.00	0.00	0.00			75,845	0	3,991	79,836
67	0.4984	21.20%	DINAJPUR	HAKIMPUR	127473002	Lohachara at Upazila Road-Hariharpurhat at Upazila Road via Boaldar UP office	15.35	13.75	1.60	0.00	0.00	4		114,787	1,558	4,921	121,266
15	0.6234	36.70%	DINAJPUR	KAHAROL	127563001	Bogdoirhat U.P-BaishpurhatVia Uthrain Rd.	12.00	12.00	0.00	0.00	0.00			73,104	0	3,847	76,951
11	0.6359	35.20%	DINAJPUR	KHANSHAMA	127603017	Pakerhat GC to Jakirgonj Bazar Via Sheltu Shah Madrasa.	7.00	6.81	0.19	0.00	0.00	1		52,346	371	2,244	54,961
			DINAJPUR	NAWABGANJ		Nandanpur to Kapaldara via Binodnagar	7.20	6.83	0.37	0.00	0.00			43,862	0	2,308	46,170
80	0.4770	15.76%	DINAJPUR	PARBATIPUR	127773011	R & H Road at Jakerganj-Chaklardanga hat via Sundarpir, Gomostapara ,Belichandi UP	9.60	9.35	0.00	0.25	0.00		6	58,483	2,226	3,078	63,787
			DINAJPUR DISTRICT			13	124.72	110.30	14.17	0.25	0.00	23	36	790,741	21,963	39,979	852,683
72	0.4899	17.45%	GAIBANDHA	FULCHARI	132213004	Udakhali U.P H/Q-Udakhali Bazar	3.98	3.98	0.00	0.00	0.00			24,911	0	1,304	26,215

	Score							Su	rface Typ Decemb			-	oss- nage s (m)	Total o	cost (BDT '(000) 2012	Prices
Ranking	Ranking Sc	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
30	0.5789	28.80%	GAIBANDHA	GAIBANDHA-S	132243003	Shahar Bazar-Shahapara UP office	5.88	5.88	0.00	0.00	0.00			36,803	0	1,927	38,730
49	0.5305	25.19%	GAIBANDHA	GOBINDAGANJ	132303003	Shakahar U.P-Bager hat GC (Ghoraghat Mazar) Via Deghir hat	8.10	7.70	0.40	0.00	0.00			50,698	0	2,655	53,353
52	0.5268	26.10%	GAIBANDHA	PALASHBARI	132673002	Kalibari GC at cinema hall-chattra UP office Road	9.50	8.40	1.10	0.00	0.00			50,698	0	2,655	53,353
101	0.3600	15.79%	GAIBANDHA	SAGHATA	132883001	Saghata GC-Kachua UP Office via Ullah Sonatala Bazar	7.40	0.75	6.65	0.00	0.00			46,317	0	2,425	48,742
58	0.5189		GAIBANDHA	SUNDARGANJ	132913006	Dhopadanga U.PSreePur UP.HQ.(Dharmapur FRA)	8.12	8.12		0.00	0.00			50,848	0	2,663	53,511
			GAIBANDHA DISTRICT			6	42.98	34.83	8.15	0.00	0.00	0	0	269,037	0	14,087	283,124
28	0.5831	22.20%	KURIGRAM	BHURUNGAMARI	149063002	Jomyonirhat UP-Bhurangamari(Bus stand)	3.15	3.15	0.00	0.00	0.00		8	19,716	2,987	1,032	23,735
			KURIGRAM	CHILMARI	149093003	Thanahat UP office at Gabtola to Ranigonj UPC.	6.00	3.70	2.30	0.00	0.00			37,554	0	1,966	39,520
47	0.5329	22.20%	KURIGRAM	FULBARI	149183009	Fulbari UP office (Food Godown)-Shaheb Bazar WAPDA Embt.	2.95	1.75	1.20	0.00	0.00			18,464	0	967	19,431
65	0.5018	22.17%	KURIGRAM	KURIGRAM-S	149523006	Pangachi-Bhitorbond road.	9.40	1.75	7.65	0.00	0.00			58,835	0	3,081	61,915
46	0.5338	18.00%	KURIGRAM	NAGESWARI	149613010	Nageswari Gc-Hashnabad UP office.	7.50	3.80	3.70	0.00	0.00		6	46,943	2,240	2,458	51,641
42	0.5404	12.00%	KURIGRAM	ROWMARI	149793002	Dantbhanga Feeder(Shalur more)Kazaikata hat	4.70	4.70	0.00	0.00	0.00		10	29,417	3,734	1,540	34,692
54	0.5240			ULIPUR	149943005	Tabakpur UP-Adarsa bazar.	6.00	5.10	0.90	0.00	0.00		18	37,554	6,721	1,966	46,242
			KURIGRAM DISTRICT			7	39.70	23.95	15.75	0.00	0.00	0	42	248,482	15,683	13,011	277,176
7	0.6603	40.00%	LALMONIRHAT	ADITMARI	152023031	Amana Bazer UZR-2 to Dulali Bazer.	6.28	6.28	0.00	0.00	0.00			39,307	0	2,058	41,365
50	0.5287	23.90%	LALMONIRHAT	HATIBANDHA		Dakalibandha to Fepranogre(Dauwabari up) via Ketkibari	11.40	10.15	1.25	0.00	0.00			71,353	0	3,736	75,089
			LALMONIRHAT			Kazir hat to Chandrapur UP Via Chalbala UP.	6.90	4.20	2.70	0.00	0.00			43,187	0	2,261	45,449
44	0.5390	27.80%	LALMONIRHAT	LALMONIRHAT-S		UZR Via Burir Bazer Rice mill.	10.00	8.10	1.90	0.00	0.00			81,000	0	3,277	84,277
51	0.5268	20.08%	LALMONIRHAT	PATGRAM	152703005	Patgram UP-Varverirhat Via	11.85	11.35	0.50	0.00	0.00	32	198	74,169	90,229	3,884	168,282

	Score							Su	rface Typ Decemb			Cro drai need	nage	Total c	cost (BDT '	000) 2012	Prices
Ranking	Ranking Sc	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
						Kawamarihat & Kalirhat.											
			LALMONIRHAT DISTRICT			5	46.43	40.08	6.35	0.00	0.00	32	198	309,015	90,229	15,217	414,461
4	0.6952	33.60%	NILPHAMARI	DIMLA		Chhotopul bazar-Naotara U.P Office Rd	6.00	6.00	0.00	0.00	0.00			37,554	0	1,966	39,520
1	0.8602	56.81%	NILPHAMARI	JALDHAKA	173363005	Jaldhaka Hat G.C-Mirgonj U.P. H/Q Via Kathali U.P.	9.00	9.00	0.00	0.00	0.00		5	56,331	1,867	2,950	61,148
35	0.5584	14.58%	NILPHAMARI	KISHOREGANJ		Chandkhana UP Office-Kellabarirhat via Darjitari, Burirhat & Chandkhana ghat.	10.55	9.45	1.10	0.00	0.00	111	-100	66,032	4,107	3,457	73,597
21	0.5993	23.70%	NILPHAMARI	NILPHAMARI-S		Khokshabari U.P.Office-Bhabanigonj G.C. via Monagonj hat	7.50	7.50	0.00	0.00	0.00			46,943	0	2,458	49,401
8	0.6601	35.20%	NILPHAMARI	SAYEDPUR	173853009	Banirhat-Shibarhat.	5.20	5.20	0.00	0.00	0.00			32,547	0	1,704	34,251
			NILPHAMARI DISTRICT			5	38.25	37.15	1.10	0.00	0.00	111	-95	239,407	5,974	12,536	257,917
59	0.5187	21.23%	PANCHAGARH	ATWARI	177043004	Dhamore UP - Sonapatila Hat Via Kiron Babu Hat Road	6.42	6.42	0.00	0.00	0.00			39,111	0	2,058	41,169
24	0.5955	31.50%	PANCHAGARH	BODA	177253001	Sakowa UP - Boirati Panchpir GC Road.	7.20	6.50	0.70	0.00	0.00		4	43,862	1,484	2,308	47,654
19	0.6022	31.30%	PANCHAGARH	DEBIGANJ	177343004	Pamuli UP Office - Shamlur Hat Via Kochabari Hat	6.03	4.78	1.25	0.00	0.00			36,735	0	1,933	38,668
6	0.6627	37.90%	PANCHAGARH	PANCHAGARH-S	177733003	Modelhat GC To Harivasha UP road via Bangpukurihat & Jinnathpara road	9.60	9.52	0.00	0.08	0.00	1		58,483	223	3,077	61,783
45	0.5363	27.40%	PANCHAGARH	TETULIA	177903002	Tetulia Chowrasta Bazar - T&T Office via Subregister Office Road.	1.42	1.15	0.27	0.00	0.00		4	8,651	1,484	455	10,590
			PANCHAGARH		1	5	30.67	28.37	2.22	0.08	0.00	1	8	186,842	3,191	9,832	199,894
36	0.5574	19.72%	DISTRICT RANGPUR	BADARGANJ	185033004	Bisnupur UP-Matherhat via Kaligonj	17.00	14.48	2.53	0.00	0.00			106,403	0	5,571	111,974
18	0.6051	31.40%	RANGPUR	GANGACHARA		Gongachara-Tista Riverghat via Dhamur Non Govt.Pry.(Mohipur bazar)	3.50	2.57	0.94	0.00	0.00			21,907	0	1,147	23,054
34	0.5588	18.20%	RANGPUR	KAUNIA	185423009	Kaunia GC-Haragach UP Office (Bakultala Bazar).	9.00	6.90	2.10	0.00	0.00		5	56,331	1,867	2,950	61,148

	Score							Su	rface Typ Decemb			Cro drai need	nage	Total c	cost (BDT '	000) 2012	Prices
Ranking	Ranking Sc	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
23	0.5973	25.90%	RANGPUR	MITHAPUKUR	185583026	Bairatirhat GC (Mirzapur UP)-Sherudanga Bazar	5.35	5.35	0.00	0.00	0.00	5		33,486	1,680	1,753	36,919
14	0.6289	31.10%	RANGPUR	PIRGACHA	185733009	Pirgacha Paccar Matha-Bramanikunda Bazar UZR	5.20	5.20	0.00	0.00	0.00	3	7	32,547	3,734	1,704	37,985
10	0.6453	40.00%	RANGPUR	PIRGANJ		Chatra-Dheparhat via Kabilpur UP office.	7.85	5.40	2.45	0.00	0.00			63,585	0	2,573	66,158
62	0.5147	20.10%	RANGPUR	RANGPUR-S	185493002	UZHQ to Nekirhat Bazar via Horidebpur UPC	17.29	14.82	1.57	0.90	0.00	1	114	108,218	45,115	5,667	158,999
			RANGPUR DISTRICT			7	65.19	54.71	9.58	0.90	0.00	9	126	422,476	52,396	21,365	496,237
53	0.5252	21.22%		BALIADANGI	194083006	Dhantala UP Office(Dolua)-Khochabari hat via Banagaon Junior Girls school Road	3.20	3.20	0.00	0.00	0.00			19,494	0	1,026	20,520
78	0.4805	14.15%	THAKURGAON	HARIPUR	194513008	Bakua UP Office-Chapdahat Road.Via Buzrok,Singhari.	10.45	10.45	0.00	0.00	0.00			63,661	0	3,350	67,011
32	0.5745	33.50%	THAKURGAON	PIRGANJ	194823015	Sengaon UP Office-Jaborhat GC Via Nashibganj GC, Bolaihat, Tamlaidighi Road.	12.40	9.40	3.00	0.00	0.00			75,541	0	3,975	79,516
26	0.5896	28.77%	THAKURGAON	RANISANKAIL	194863004	Kashipur UP (Moharaja)-Dholpukur hat Road (Up to FRB road 100.00m Bridge)	5.00	5.00	0.00	0.00	0.00			30,460	0	1,603	32,063
79	0.4776	19.15%	THAKURGAON	THAKURGAON-S	194943015	Fershadangi hat-Islamnagar RHD Road.	7.00	5.67	1.33	0.00	0.00		4	42,644	1,484	2,244	46,372
			THAKURGAON DISTRICT			5	38.05	33.72	4.33	0.00	0.00	0	4	231,801	1,484	12,197	245,482
Not	es:		TOTAL ari, Kishoreganj, Ro	oad 173453023, replac	cement struc	106 tures is negative - a 100m bridge is	791.56 s already				1.91	1092	425	5,241,124	600,033	262,387	6,103,543

The total span of cross-drainage structures required is the sum of the existing gaps plus the existing structures which are damaged and must be replaced Additional UNR appraised to meet target of 'one road per Upazila'

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50	core	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe			dra need	·oss- inage ls (m)	Total c	cost (BDT '	000) 2012	Prices
Ranking	Ranking Score								Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement . Structures	Road	Bridges & Culverts	Road Safety	Total
1	0.8018	47.44%	NILPHAMARI	JALDHAKA		Jaldhaka Bazar (Upazila H/Q)-Mirgonj GC Via Binnabari hat	6.00	5.70	0.30	0.00	0.00	0	0	46,806	0	1,966	48,772
			RANGPUR	PIRGANJ	185762010	Bhendabari GC to Nawabgonj GC via Pirerhat-Tukuria-Katchdaherghat	12.40	10.43	1.97	0.00	0.00	0	4	96,732	1,494	4,064	102,290
3	0.7728	57.52%	RANGPUR	PIRGACHA		Chowdhurani GC-Sundarganj UZHQ (Part)	12.70	7.13	5.57	0.00	0.00	0	11	102,870	4,310	4,162	111,342
5	0.6638	43.08%	THAKURGAON	PIRGANJ	194822007	Nakkatihat GC-Sinua RHD Road.	4.50	4.11	0.00	0.39	0.00	0		34,047	0	1,443	35,490
6	0.6564	25.20%	JAMALPUR	ISLAMPUR		Mosharofgonj R & H-Guthail GC Via Belghacha UP Rd.	8.50	8.50	0.00	0.00	0.00	109	0	71,528	46,140	2,872	120,539
7			DINAJPUR	KAHAROL	127562006	Mutunihat-Noshipurhat Rd.	5.05	5.05	0.00	0.00	0.00	0	0	39,723	0	1,619	41,342
8	0.6493	36.07%	MYMENSINGH	BHALUKA		Mallikbari Bazar-Borchona	9.75	9.75	0.00	0.00	0.00	0	0	83,060	0	3,324	86,385
9			NILPHAMARI	NILPHAMARI-S		Nilphamari-Jaldhaka R&H road at Kachukata Bondor to Nilphamari-Domar R&H road via Ramgonj Bondor.	15.15	11.75	3.40	0.00		0		122,715	0	4,965	127,680
			NILPHAMARI	DIMLA		Baburhat G.C-CARE bazar R&H Road	4.82	4.82	0.00	0.00	0.00	0	0	39,042	0	1,580	40,622
11	0.6357	41.93%	DINAJPUR	FULBARI		Amdungihat GC-Baraihat GC via Pathokparahat and Samser nagar hat Rd.	8.00	6.50	1.50	0.00	0.00	0	8	60,528	2,968	2,564	66,060
			DINAJPUR	KHANSHAMA		Khansama-Kachinia hat G.C.	15.50	15.50	0.00	0.00	0.00	1	0		371	4,969	127,263
			DINAJPUR	BIRGANJ		Kobiraj GC (NHW)-Mahugaon R&H.Road	6.09	4.27	1.82	0.00	0.00	0	0	47,904	0	1,952	49,856
						Panchagarh Barister Institute - Goaljharhat via Amtola Road.	13.00	5.43	7.57	0.00	0.00	0	0	102,258	0	4,167	106,425
				RANISANKAIL		Nekmord College R&H-Moharaja GC Road	6.00	6.00	0.00	0.00	0.00	0	0	47,196	0	1,923	49,119
			NILPHAMARI	DOMAR		Sonarai Hat RHD road -Basunia Hat GC via Sonarai UP Office.	6.20	6.20	0.00	0.00	0.00	0		50,220	0	2,032	52,252
				PHULPUR		kakni R&H-Shyamgonj GC Road via Bhusher Bazar & Raijdarikel G.C.	17.30	14.58	2.72	0.00	0.00	0		147,379	0	5,899	153,277
			JAMALPUR	SARISHABARI		Simlabazar (RHD)-Rayagonj GC Road via Borobaria	5.00	4.00	0.50	0.50		0	0	42,075	0	1,689	43,764
			MYMENSINGH			Hatkalir Bazar GC-Kalibari Bazar via Garajan	3.10	3.10	0.00	0.00	0.00	4	0	25,479	1,575	1,057	28,111
23	0.5875	31.92%	PANCHAGARH	BODA	177252006	Maidandighi GC - Bottoli G.C Road.	13.00	10.75	2.25	0.00	0.00	0	0	102,258	0	4,167	106,425

Table A16-5 Selected Upazila road (UZR) upgrading sub-projects (one road per Upazila) - by RANKING

<u>в</u>	core	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		face Type Decembe	· /		dra need	oss- inage ls (m)	Total o	cost (BDT '	000) 2012	Prices
Ranking	Ranking Score							Earthen	Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement . Structures	Road	Bridges & Culverts	Road Safety	Total
24	0.5841	30.88%	MYMENSINGH	TRISHAL	361942010	Chakrampur GC-Kalirbazar GC road .	11.78	8.59	3.19	0.00	0.00	25	25	100,354	19,013	4,017	123,383
25	0.5770	27.00%	JAMALPUR	MADARGANJ	339582009	Rayaganj GC-Simla Bazar RHD Road via Royerchara Bazar Rd. (Madarganj Part)	4.95	4.47	0.48	0.00	0.00	105	0	41,654	44,447	1,672	87,773
			LALMONIRHAT			Mohishkhocha GC-Namurihat Zila road .	6.12	4.71	1.42		0.00	0	Ŭ	47,758	0	2,006	49,764
			NETROKONA	MADAN		Teosree GC-Fatepur GC.	8.40	7.20		0.00	0.75	0	0	71,560	0	2,864	74,424
			TANGAIL	GHATAIL	393282005	Dhalapara-Deopara-Purbasinda Road	7.76	5.46	0.10	2.20	0.00	0	0	68,843	0	2,621	71,464
30	0.5592	31.98%	DINAJPUR	HAKIMPUR		Hilli GC-Katlahat GC starting from Satkuri Railgate via NAYANAGAR HAT GC	5.00	3.07	0.93	1.00	0.00	1	0	39,330	519	1,603	41,452
			RANGPUR	KAUNIA		Mahigonj Pawtana (Damurchakla)-Nabdigonj Tapamodhupur GC (Kaunia Portaion)	1.75	1.75	0.00	0.00		0	2	14,175	747	574	15,495
			THAKURGAON			Lahiri G.C-Ramnath G.C via Chowrangi hat Road	7.90	6.85	1.05	0.00		0	0	62,141	0	2,532	64,674
			KURIGRAM	RAJIBPUR		Rajibpur GC-Kadalkati G.C.	6.95	5.39	1.56		0.00	0	20	59,492	8,204	2,278	69,974
			GAIBANDHA	SADULLAPUR		Madergonj G.C-Pachar bazar G.C	11.40	11.11	0.29	0.00	0.00	0	-	88,931	0	3,736	92,668
			RANGPUR	GANGACHARA		Gangachara UZHQ (Near College)-Paglapir GC Via Birabarihat	8.93	4.32		0.00	0.00	0	0	72,333	0	2,927	75,260
			SHERPUR	SREEBORDI	389902004	Bhayadanga-Bakshigonj Road.	13.70	11.88	1.83	0.00	0.00	0	-	111,176	0	4,629	115,804
				DEBIGANJ		Saldanga R&H at Gp School - Shakoa GC	5.30	3.90		0.00	0.00	-	Ť	40,100	0	1,699	41,799
			TANGAIL	NAGARPUR		Nagarpur-Mirzapur Road Via Mokna	15.78	7.96	7.82	0.00	0.00	222	0	132,789	93,973	5,331	232,093
			KURIGRAM	RAJARHAT		Nazimkhan GC-Ratigram GC via Dangrarhat.	7.10	5.96	1.14	0.00	0.00	0	0	57,510	0	2,327	59,837
			DINAJPUR	BIRAMPUR	127102005	Tatakpur RHD-Madhala GC (Janipur) via Munnapara River ghat & Jotjoyram	3.60	3.60	0.00	0.00	0.00	98	0	28,318	40,033	1,154	69,505
			JAMALPUR	BAKSHIGANJ		Dotterchar R&H-Sarmara G.C.	6.00	4.45	0.60	0.95	0.00	0	0	48,690	0	2,027	50,717
47	0.5150	19.38%	PANCHAGARH	TETULIA	177902006	Panchagarh-Banglabandha R&H (Dargashing) - Shalbahan GC	4.01	4.01	0.00	0.00	0.00	0	0	30,340	0	1,285	31,625
49	0.5133	27.24%	JAMALPUR	MELENDAH		Tonkey GC - Durmut GC (Shundara fasal) Road	2.50	0.40	0.00	2.10	0.00	0	0	20,288	0	845	21,132
50	0.5097	29.70%	GAIBANDHA	PALASHBARI		Palashbari Upazila H/Q-Chattra GC Road via Kishorgari UP office	10.40	6.10	4.30	0.00	0.00	0	0	84,240	0	3,408	87,648
51	0.5078	23.54%	DINAJPUR	CHIRIRBANDAR	127302008	Binnakuri GC to Ishamati National HY	8.40	7.70	0.70	0.00	0.00	0	7	66,074	2,597	2,693	71,364

50	core	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		face Type Decembe			dra neec	oss- inage ls (m)	Total c	cost (BDT	'000) 2012	Prices
Ranking	Ranking Score							Earthen	Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
54			MYMENSINGH			Muktagacha Trimohini Natun Bazar GC-Mohammadnagar GC via Hazi Kashem Ali Girls College, Shib bari n & Gorbazil Bazar (Muktagacha portion)	10.10	8.10	2.00			4	12	86,042	6,146	3,444	95,631
			DINAJPUR	BIROL		Narabari GC to Pulhat RHD	9.40	6.80	2.60		0.00	0		73,940	0	3,013	76,954
			RANGPUR	MITHAPUKUR		Bairagigonj Busstand NHW to Ranipukur Via Dhap Bazar.	8.60	4.60	4.00			10		67,089	13,032	2,819	82,939
58				AUSTAGRAM		Austagram-Mitamoin Road	10.20	10.20	0.00		0.00	68	0	83,834	26,119	3,478	113,430
				BASAIL		Basail-Natiapara GC via Bilpara Road.	8.66	6.36				130		72,874	55,029	2,926	130,829
			LALMONIRHAT			Durakuti GC to Zill Road at Bhularhat via chapar Hat	10.80	5.02	5.78			0	-	87,480	0	3,540	91,020
62	0.4880	13.28%		GAFFARGAON		Lamkain-Kandipara Rd.	4.50	4.50	0.00			6		38,336	2,113	1,534	41,982
65				GOURIPUR		Shyamgonj GC-Hogla GC (Gouripur part).	7.50	4.57	2.93	0.00	0.00	0	0	67,343	0	2,557	69,900
68			GAIBANDHA	SUNDARGANJ		Sundargonj-Materhat G.C (FRA)	19.02	9.91	9.11	0.00	0.00	0	-	154,078	0	6,234	160,312
			TANGAIL	SHAKHIPUR		Sakhipur - Suruj GC Road via Salgrampur, Tejpur Ferryghat.	11.60	4.76				0	÷	97,614		3,919	101,533
72	0.4555	17.11%	SHERPUR	NALITABARI		Araiani Bazar-Ghagpara bazar-Kalakuma-Karanga para	13.00	8.95	2.00	2.05	0.00	65	0	105,495	27,515	4,392	137,402
73			DINAJPUR	GHORAGHAT		Bager hat GC (Azad mor)-Osmanpur GC via T&T mor.	7.50	2.81	2.31			0		58,995	0	2,404	61,399
75			MYMENSINGH			R&H (Nagla)-Goatola GC via Shakuai GC(Haluaghat part).	19.00	4.97	10.20					161,861	47,186	6,478	215,525
77				DELDUAR		Delduar-Natiapara Rd.	6.13	3.97	2.16			70		51,584	29,631	2,071	83,286
79			KURIGRAM	FULBARI		Fulbari-Gagla G. CGongerhat R & H Road to Ramkhana Dighirpar Via Anantopur Barakutih (Fulbari part).	8.85	1.76	5.35		0.00	0	0	71,685	0	2,900	74,585
-				GAIBANDHA-S		Tulsighat hat-Ramchandrapur Palli Health center road	7.90	5.40	2.50		0.00	0	0	63,990	0	2,589	66,579
			SHERPUR	SHERPUR-S		Lasmanpur RHD - Nandina GC Road via. Gugurakandi UP	10.45	6.85	3.60			241	0	87,937	102,015	3,531	193,483
			TANGAIL	TANGAIL-S		Torapgonj-Jamuna Bridge Approach Road via char pouly	25.00	21.70	3.30			370	0	210,375	156,621	8,446	375,442
				MITHAMOIN		Mithamoin-Natunhati-Austagram Rd (Mithamoin Part).	7.05	7.05	0.00			4	-	57,944	1,536	2,404	61,884
89	0.3975	14.18%	THAKURGAON	THAKURGAON- S	194942015	Parpugi RHD-Neckmorad GC Road.	6.80	2.58	4.22	0.00	0.00	2	9	53,489	4,081	2,180	59,750

ac	Score	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe			dra need	oss- inage ls (m)	Total c	cost (BDT '	000) 2012	Prices
Ranking	Ranking S							Earthen	Flexible Pavement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
90	0.3964	16.96%	KISHOREGANJ	NIKLI		Nikli Bazar-Chuntikhali Launch Ghat-Ashtagram Road	9.50	9.50	0.00	0.00	0.00	1	0	78,081	230	3,239	81,550
91	0.3955	15.28%	SHERPUR	NAKLA		Nakla-Tarakanda GC-Nalitabari Road.	12.00	2.00	10.00	0.00	0.00	0	0	106,500	0	4,054	110,554
93	0.3894	18.59%	LALMONIRHAT	LALMONIRHAT- S		Lalmonirhat upazilla H/Q at purbo thana para to Mohendranagar GC via Dhebdhebir hat.	10.85	3.45	7.10	0.30	0.00	0	0	87,885	0	3,556	91,441
94	0.3849	13.91%	NETROKONA	ATPARA	372042008	Avoypasha R&H-Najirganj G.C. road via Mobarakpur	11.43	11.43	0.00	0.00	0.00	92	0	97,372	37,048	3,897	138,318
95	0.3717	12.11%	JAMALPUR	JAMALPUR-S			13.10	4.00	9.10	0.00	0.00	7	0	110,237	2,699	4,426	117,361
96	0.3662	21.16%	NETROKONA	NETRAKONA-S	372742006	Netrakona-Shidly GC Road. (Sadar part.)	13.14	7.00	5.87	0.00	0.28	250	0	187,718	100,474	4,480	292,672
98	0.3604	15.15%	TANGAIL	BHUAPUR		Shialkol GC-Nikrail GC Via Golabari road	8.26	3.51	4.75	0.00	0.00	0	9	73,308	3,470	2,791	79,568
99	0.3518	16.72%	NETROKONA	BARHATTA	372092007	Amtala-Samaj GC Road (Barhatta Portion)	10.94	6.24	4.70	0.00	0.00	0	0	89,916	0	3,730	93,646
10 0	0.3176	18.34%	TANGAIL	MADHUPUR	393572003	Chapri-Garohat Road	6.22	0.00	1.40	4.82	0.00	0	0	50,475	0	2,101	52,577
69 r	oads	•		•	•		637.29	440.42	173.58	22.26	1.03	1996	132	5,303,312	881,332	211,778	6,396,422

The total span of cross-drainage structures required is the sum of the existing gaps plus the existing structures which are damaged and must be replaced The lengths and costs of these roads have been adjusted to ensure that full connectivity is achieved (see main text) Additional UZR appraised to meet target of 'one road per Upazila' Notes:

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	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe			Cro drain needs	nage	Total c	ost (BDT '	000) 201	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
46			JAMALPUR	BAKSHIGANJ		Dotterchar R&H-Sarmara G.C.	6.00	4.45	0.60	0.95	0.00	0	0	48,690	0	2,027	50,717
6			JAMALPUR	ISLAMPUR		Mosharofgonj R & H-Guthail GC Via Belghacha UP Rd.	8.50	8.50		0.00		109	0	71,528	46,140	2,872	120,539
95	0.3717	12.11%	JAMALPUR	JAMALPUR-S		Banschara G.C-Jamalpur-Chacua-Moktaga sa D.R at Gopalpur.	13.10	4.00	9.10	0.00	0.00	7	0	110,237	2,699	4,426	117,361
25	0.5770	27.00%	JAMALPUR	MADARGANJ		Rayaganj GC-Simla Bazar RHD Road via Royerchara Bazar Rd. (Madarganj Part)	4.95	4.47	0.48	0.00	0.00	105	0	41,654	44,447	1,672	87,773
49	0.5133	27.24%	JAMALPUR	MELENDAH	339612010	Tonkey GC - Durmut GC (Shundara fasal) Road	2.50	0.40	0.00	2.10	0.00	0	0	20,288	0	845	21,132
21	0.5969	36.20%	JAMALPUR	SARISHABARI	339852009	Simlabazar (RHD)-Rayagonj GC Road via Borobaria	5.00	4.00	0.50	0.50	0.00	0	0	42,075	0	1,689	43,764
			JAMALPUR DISTRICT	·		6	40.05	25.81	10.68	3.55	0.00	221	0	334,471	93,285	13,531	441,286
			KISHOREGANJ	AUSTAGRAM	348022002	Austagram-Mitamoin Road	10.20	10.20		0.00		68	0	83,834	26,119	3,478	113,430
88	0.3992	15.65%	KISHOREGANJ	MITHAMOIN	348592003	Mithamoin-Natunhati-Austagra m Rd (Mithamoin Part).	7.05	7.05	0.00	0.00	0.00	4	0	57,944	1,536	2,404	61,884
90	0.3964		KISHOREGANJ	NIKLI	348762006	Nikli Bazar-Chuntikhali Launch Ghat-Ashtagram Road	9.50		0.00	0.00	0.00	1	0	78,081	230	3,239	81,550
			KISHOREGANJ DISTRICT			3	26.75	26.75	0.00	0.00	0.00	73	0	219,858	27,886	9,121	256,865
8			MYMENSINGH	BHALUKA		Mallikbari Bazar-Borchona	9.75	9.75	0.00	0.00		0	0	83,060	0	3,324	86,385
			MYMENSINGH	FULBARIA		Hatkalir Bazar GC-Kalibari Bazar via Garajan	3.10	3.10	0.00	0.00		4	0	25,479	1,575	1,057	28,111
			MYMENSINGH	GAFFARGAON		Lamkain-Kandipara Rd.	4.50	4.50		0.00		6	0	38,336	2,113	1,534	41,982
			MYMENSINGH	GOURIPUR		Shyamgonj GC-Hogla GC (Gouripur part).	7.50	4.57	2.93	0.00		0	0	67,343	0	2,557	69,900
75	0.4479	17.20%	MYMENSINGH	HALUAGHAT		R&H (Nagla)-Goatola GC via Shakuai GC(Haluaghat part).	19.00	4.97	10.20	3.84	0.00	112	0	161,861	47,186	6,478	215,525
54	0.5010	14.26%	MYMENSINGH	MUKTAGACHA		Muktagacha Trimohini Natun Bazar GC-Mohammadnagar GC via Hazi Kashem Ali Girls College, Shib bari n & Gorbazil Bazar (Muktagacha portion)	10.10	8.10	2.00	0.00	0.00	4	12	86,042	6,146	3,444	95,631

Table A16-6 Selected Upazila road (UZR) upgrading sub-projects (one road per Upazila) - by DISTRICT

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe			Cro drain needs	nage	Total c	cost (BDT '	2000) 2012	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
			MYMENSINGH	PHULPUR	361812007	kakni R&H-Shyamgonj GC Road via Bhusher Bazar & Raijdarikel G.C.	17.30	14.58	2.72	0.00	0.00	0	0	147,379	0	5,899	153,277
24	0.5841	30.88%	MYMENSINGH	TRISHAL	361942010	Chakrampur GC-Kalirbazar GC road .	11.78	8.59	3.19	0.00	0.00	25	25	100,354	19,013	4,017	123,383
			MYMENSINGH DISTRICT			8	83.03	58.15	21.04	3.84	0.00	150	37	709,853	76,032	28,311	814,195
94	0.3849	13.91%	NETROKONA	ATPARA	372042008	Avoypasha R&H-Najirganj G.C. road via Mobarakpur	11.43	11.43	0.00	0.00	0.00	92	0	97,372	37,048	3,897	138,318
99	0.3518	16.72%	NETROKONA	BARHATTA	372092007	Amtala-Samaj GC Road (Barhatta Portion)	10.94	6.24	4.70	0.00	0.00	0	0	89,916	0	3,730	93,646
28	0.5710	46.36%	NETROKONA	MADAN	372562008	Teosree GC-Fatepur GC.	8.40	7.20	0.45	0.00	0.75	0	0	71,560	0	2,864	74,424
			NETROKONA	NETRAKONA-S	372742006	Netrakona-Shidly GC Road. (Sadar part.)	13.14	7.00	5.87	0.00		250	0	187,718	100,474	4,480	292,672
			NETROKONA DISTRICT		•	4	43.91	31.87	11.01	0.00	1.03	342	0	446,566	137,522	14,972	599,060
			SHERPUR	NAKLA	389672003	Nakla-Tarakanda GC-Nalitabari Road.	12.00	2.00	10.00	0.00	0.00	0	0	106,500	0	4,054	110,554
			SHERPUR	NALITABARI	389702011	Araiani Bazar-Ghagpara bazar-Kalakuma-Karanga para	13.00	8.95	2.00	2.05		65	0	105,495	27,515	4,392	137,402
			SHERPUR	SHERPUR-S	389882010	Lasmanpur RHD - Nandina GC Road via. Gugurakandi UP	10.45	6.85	3.60	0.00		241	0	87,937	102,015	3,531	193,483
39	0.5336	28.09%	SHERPUR	SREEBORDI	389902004	Bhayadanga-Bakshigonj Road.	13.70	11.88	1.83	0.00		0	0	111,176	0	.,022	115,804
			SHERPUR DISTRICT			4	.,	26.68	17.43	2.05		306	0	411,107	129,530		557,242
60			TANGAIL	BASAIL	393092004	Basail-Natiapara GC via Bilpara Road.	8.66	6.36	2.30	0.00		130	0	72,874	55,029	2,926	130,829
98	0.3604	15.15%	TANGAIL	BHUAPUR	393192002	Shialkol GC-Nikrail GC Via Golabari road	8.26	3.51	4.75	0.00	0.00	0	9	73,308	3,470	2,791	79,568
77			TANGAIL	DELDUAR	393232003	Delduar-Natiapara Rd.	6.13	3.97	2.16	0.00	0.00	70	0	51,584	29,631	2,071	83,286
29			TANGAIL	GHATAIL	393282005	Dhalapara-Deopara-Purbasinda Road	7.76	5.46	0.10	2.20	0.00	0	0	68,843	0	2,621	71,464
10 0	0.3176	18.34%	TANGAIL	MADHUPUR	393572003	Chapri-Garohat Road	6.22	0.00	1.40	4.82	0.00	0	0	50,475	0	2,101	52,577
41	0.5245	28.86%	TANGAIL	NAGARPUR	393762003	Nagarpur-Mirzapur Road Via Mokna	15.78	7.96	7.82	0.00	0.00	222	0	132,789	93,973	5,331	232,093
70	0.4678	22.77%	TANGAIL	SHAKHIPUR	393852004	Sakhipur - Suruj GC Road via Salgrampur,Tejpur Ferryghat.	11.60	4.76	6.84	0.00	0.00	0	0	97,614	0	3,919	101,533

	Score	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe			Cro drain needs	nage	Total c	cost (BDT '	000) 201	2 Prices
Ranking	Ranking Sc							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
86	0.4069	15.07%	TANGAIL	TANGAIL-S	393952006	Torapgonj-Jamuna Bridge Approach Road via char pouly	25.00	21.70	3.30	0.00	0.00	370	0	210,375	156,621	8,446	375,442
			TANGAIL DISTRICT			8	89.41	53.72	28.67	7.02	0.00	792	9	757,862	338,723	30,206	1,126,791
44	0.5218	22.56%	DINAJPUR	BIRAMPUR	127102005	Tatakpur RHD-Madhala GC (Janipur) via Munnapara River ghat & Jotjoyram	3.60	3.60	0.00	0.00	0.00	98	0	28,318	40,033	1,154	69,505
14	0.6292	40.16%	DINAJPUR	BIRGANJ	127122004	Kobiraj GC (NHW)-Mahugaon R&H.Road	6.09	4.27	1.82	0.00	0.00	0	0	47,904	0	1,952	49,856
56	0.4942	24.60%	DINAJPUR	BIROL	127172009	Narabari GC to Pulhat RHD	9.40	6.80	2.60	0.00	0.00	0	0	73,940	0	3,013	76,954
			DINAJPUR	CHIRIRBANDAR		Binnakuri GC to Ishamati National HY	8.40	7.70	0.70	0.00	0.00	0	7	66,074	2,597	2,693	71,364
11	0.6357	41.93%	DINAJPUR	FULBARI	127382008	Amdungihat GC-Baraihat GC via Pathokparahat and Samser nagar hat Rd.	8.00	6.50	1.50	0.00	0.00	0	8	60,528	2,968	2,564	66,060
73	0.4526	23.92%	DINAJPUR	GHORAGHAT	127432009	Bager hat GC (Azad mor)-Osmanpur GC via T&T mor.	7.50	2.81	2.31	2.38	0.00	0	0	58,995	0	2,404	61,399
30	0.5592	31.98%	DINAJPUR	HAKIMPUR	127472003	Hilli GC-Katlahat GC starting from Satkuri Railgate via NAYANAGAR HAT GC	5.00	3.07	0.93	1.00	0.00	1	0	39,330	519	1,603	41,452
7	0.6496	40.46%	DINAJPUR	KAHAROL	127562006	Mutunihat-Noshipurhat Rd.	5.05	5.05	0.00	0.00	0.00	0	0	39,723	0	1,619	41,342
12	0.6345	35.98%	DINAJPUR	KHANSHAMA	127602006	Khansama-Kachinia hat G.C.	15.50	15.50	0.00	0.00	0.00	1	0	121,923	371	4,969	127,263
			DINAJPUR DISTRICT			9	68.54	55.30	9.86	3.38	0.00	100	15	536,736	46,488	21,971	605,195
81	0.4201	13.47%	GAIBANDHA	GAIBANDHA-S	132242009	Tulsighat hat-Ramchandrapur Palli Health center road	7.90	5.40	2.50	0.00	0.00	0	0	63,990	0	2,589	66,579
			GAIBANDHA	PALASHBARI	132672004	Palashbari Upazila H/Q-Chattra GC Road via Kishorgari UP office	10.40	6.10	4.30	0.00	0.00	0	0	84,240	0	3,408	87,648
36	0.5396	25.79%	GAIBANDHA	SADULLAPUR	132822009	Madergonj G.C-Pachar bazar G.C	11.40	11.11	0.29	0.00	0.00	0	0	88,931	0	3,736	92,668
68	0.4723	15.51%	GAIBANDHA	SUNDARGANJ	132912005	Sundargonj-Materhat G.C (FRA)	19.02	9.91	9.11	0.00	0.00	0	0	154,078	0	6,234	160,312
			GAIBANDHA DISTRICT			4	48.72	32.53	16.20	0.00	0.00	0	0	391,240	0	15,968	407,208

		ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe			Cro drain needs	nage	Total c	ost (BDT '	000) 2012	Prices
Ranking	:	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
79				KURIGRAM	FULBARI		Fulbari-Gagla G. CGongerhat R & H Road to Ramkhana Dighirpar Via Anantopur Barakutih (Fulbari part).	8.85	1.76	5.35	1.74	0.00	0	0	71,685	0	2,900	74,585
43	0.5	5232	19.14%	KURIGRAM	RAJARHAT	149772005	Nazimkhan GC-Ratigram GC via Dangrarhat.	7.10	5.96	1.14	0.00	0.00	0	0	57,510	0	2,327	59,837
35	0.5	5472	13.80%	KURIGRAM	RAJIBPUR	149082003	Rajibpur GC-Kadalkati G.C.	6.95	5.39	1.56	0.00	0.00	0	20	59,492	8,204	2,278	69,974
				KURIGRAM			3	22.90	13.11	8.05	1.74	0.00	0	20	188,687	8,204	7,505	204,396
					ADITMARI		Mohishkhocha GC-Namurihat Zila road .	6.12	4.71	1.42	0.00	0.00	0	0	47,758	0	2,006	49,764
61	0.4	1896	27.91%	LALMONIRHAT	KALIGANJ	152392008	Durakuti GC to Zill Road at Bhularhat via chapar Hat	10.80	5.02	5.78	0.00	0.00	0	0	87,480	0	3,540	91,020
93	0.3	3894	18.59%	LALMONIRHAT	LALMONIRHAT-S	152552010	Lalmonirhat upazilla H/Q at purbo thana para to Mohendranagar GC via Dhebdhebir hat.	10.85	3.45	7.10	0.30	0.00	0	0	87,885	0	3,556	91,441
	1			LALMONIRHAT			3	27.77	13.18	14.30	0.30	0.00	0	0	223,123	0	9,102	232,225
10	0.0	6454	22 020/	DISTRICT NILPHAMARI	DIMLA	173122011	Baburhat G.C-CARE bazar	4.82	4.82	0.00	0.00	0.00	0	0	39,042	0	1,580	40,622
10	0.0	5454	22.8370	NILPHAMAKI	DIVILA	1/5122011	R&H Road	4.02	4.62	0.00	0.00	0.00	0	0	39,042	0	1,380	40,022
19	0.6	5131	21.48%	NILPHAMARI	DOMAR	173152013	Sonarai Hat RHD road -Basunia Hat GC via Sonarai UP Office.	6.20	6.20	0.00	0.00	0.00	0	0	50,220	0	2,032	52,252
1	0.8	3018	47.44%	NILPHAMARI	JALDHAKA	173362007	Jaldhaka Bazar (Upazila H/Q)-Mirgonj GC Via Binnabari hat	6.00	5.70	0.30	0.00	0.00	0	0	46,806	0	1,966	48,772
9	0.6	6465	30.12%	NILPHAMARI	NILPHAMARI-S		Nilphamari-Jaldhaka R&H road at Kachukata Bondor to Nilphamari-Domar R&H road via Ramgonj Bondor.	15.15	11.75	3.40	0.00	0.00	0	0	122,715	0	4,965	127,680
				NILPHAMARI			4	32.17	28.47	3.70	0.00	0.00	0	0	258,783	0	10,543	269,326
23	0.5	5875	31.92%	DISTRICT PANCHAGARH	BODA	177252006	Maidandighi GC - Bottoli G.C Road.	13.00	10.75	2.25	0.00	0.00	0	0	102,258	0	4,167	106,425
40	0.5	5316	24.84%	PANCHAGARH	DEBIGANJ	177342009	Saldanga R&H at Gp School - Shakoa GC	5.30	3.90	1.40	0.00	0.00	0	0	40,100	0	1,699	41,799

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)		ace Type Decembe			Cro drain needs	nage	Total c	ost (BDT '	000) 2012	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
15	0.6262	38.44%	PANCHAGARH	PANCHAGARH-S	177732007	Panchagarh Barister Institute - Goaljharhat via Amtola Road.	13.00	5.43	7.57	0.00	0.00	0	0	102,258	0	4,167	106,425
47	0.5150	19.38%	PANCHAGARH	TETULIA	177902006	Panchagarh-Banglabandha R&H (Dargashing) - Shalbahan GC	4.01	4.01	0.00	0.00	0.00	0	0	30,340	0	1,285	31,625
			PANCHAGARH DISTRICT			4	35.31	24.09	11.22	0.00	0.00	0	0	274,955	0	11,319	286,274
37	0.5366		RANGPUR	GANGACHARA		Gangachara UZHQ (Near College)-Paglapir GC Via Birabarihat	8.93	4.32	4.61	0.00	0.00	0	0	72,333	0	2,927	75,260
31	0.5566	16.25%	RANGPUR	KAUNIA		Mahigonj Pawtana (Damurchakla)-Nabdigonj Tapamodhupur GC (Kaunia Portaion)	1.75	1.75	0.00	0.00	0.00	0	2	14,175	747	574	15,495
			RANGPUR	MITHAPUKUR		Bairagigonj Busstand NHW to Ranipukur Via Dhap Bazar.	8.60	4.60		0.00		10	25	,	13,032	2,819	82,939
			RANGPUR	PIRGACHA		Chowdhurani GC-Sundarganj UZHQ (Part)	12.70	7.13	5.57	0.00	0.00	0	11	102,870	4,310	4,162	111,342
2	0.7976	53.72%	RANGPUR	PIRGANJ	185762010	Bhendabari GC to Nawabgonj GC via Pirerhat-Tukuria-Katchdahergh at	12.40	10.43	1.97	0.00	0.00	0	4	96,732	1,494	4,064	102,290
			RANGPUR DISTRICT	•		5	44.38	28.23	16.15	0.00	0.00	10	42	353,199	19,582	14,545	387,326
32	0.5540	28.53%	THAKURGAON	BALIADANGI	194082004	Lahiri G.C-Ramnath G.C via Chowrangi hat Road	7.90	6.85	1.05	0.00	0.00	0	0	62,141	0	2,532	64,674
5	0.6638	43.08%	THAKURGAON	PIRGANJ		Nakkatihat GC-Sinua RHD Road.	4.50	4.11	0.00	0.39	0.00	0	0	34,047	0	1,443	35,490
		33.88%		RANISANKAIL		Nekmord College R&H-Moharaja GC Road	6.00	6.00	0.00	0.00		0	0	47,196	0	1,923	49,119
89	0.3975		THAKURGAON	THAKURGAON-S		Parpugi RHD-Neckmorad GC Road.	6.80	2.58	4.22	0.00		2	9	53,489	4,081	2,180	59,750
			THAKURGAON DISTRICT			4		19.54					9		4,081	8,078	209,032
	×c.		TOTAL			69 of the existing gaps plus the existing	637.29							5,303,312	881,332	211,778	6,396,422

The total span of cross-drainage structures required is the sum of the existing gaps plus the existing structures which are damaged and must be replaced Notes: The lengths and costs of these roads have been adjusted to ensure that full connectivity is achieved (see main text) Additional UZR appraised to meet target of 'one road per Upazila'

		EIRR	District	Upazila	Road	Road Name	Total	Su	rface Typ	e (km) as of	Cros	s-drai	Total co	st (BDT	(000) 201	2 Prices
		Linu	District	opullu	Code		Length	Su	Decemb				needs	1000100		000) 201	
50	core						(km)					1)	n)				
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
								E	Fa	Pa	Pa (C	Е	Rep Str		Br C	Roa	-
8	0.6601	35.20%	NILPHAMARI	SAYEDPUR	173853009	Banirhat-Shibarhat.	5.20	5.20	0.00	0.00	0.00			32,547	0	1,704	34,251
13	0.6294	24.40%	JAMALPUR	DEWANGANJ	339153012	Bahadurabad UP-Shekpara Bazar	3.00	3.00	0.00	0.00	0.00	45		19,455	18171	1,014	38,640
27	0.5881	37.50%	TANGAIL	DHANBARI	393963019	Kendua-Paiska road	4.50	4.50	0.00	0.00	0.00			29,183	0	1,520	30,703
28						Jomyonirhat UP-Bhurangamari(Bus stand)	3.15	3.15	0.00		0.00		8	19,716	,	1,032	23,735
33						Dapunia UP-Montala Bazar Rd. via Shorshamala Bazar	6.80	6.80	0.00					44,554		2,319	58,929
35	0.5584	14.58%	NILPHAMARI	KISHOREGANJ		Chandkhana UP Office-Kellabarirhat via Darjitari, Burirhat & Chandkhana ghat.	10.55	9.45	1.10	0.00	0.00	111	-100	66,032	4,107	3,457	73,597
36	0.5574	19.72%	RANGPUR	BADARGANJ	185033004	Bisnupur UP-Matherhat via Kaligonj	17.00	14.48	2.53	0.00	0.00			106,403	0	5,571	111,974
38				NANDAIL		Chandipasha U.P-Shialdhara Bazar Road via Bashati bazar	9.60	9.60	0.00					62,899	0	3,273	66,173
39				TARAIL		Thana H.Q-Dhamiha Bazer	3.54	3.54	0.00	0.00	0.00			23,194	0	1,207	24,401
40				CHILMARI		Thanahat UP office at Gabtola to Ranigonj UPC.	6.00	3.70	2.30					37,554		1,966	39,520
42				ROWMARI		Dantbhanga Feeder(Shalur more)Kazaikata hat	4.70	4.70	0.00		0.00		10	29,417	3,734	1,540	34,692
46				NAGESWARI		Nageswari Gc-Hashnabad UP office.	7.50	3.80	3.70		0.00		6	46,943	2,240	2,458	51,641
48				BOCHAGANJ		Mushidhat-Rangaon UP office	5.46	4.18	1.28	0.00	0.00			33,262	0	1,750	35,013
49			-	GOBINDAGANJ		Shakahar U.P-Bager hat GC (Ghoraghat Mazar) Via Deghir hat	8.10	7.70	0.40					50,698	0	2,655	53,353
			LALMONIRHAT			Dakalibandha to Fepranogre(Dauwabari up) via Ketkibari	11.40	10.15	1.25		0.00			71,353	0	3,736	75,089
			LALMONIRHAT			Patgram UP-Varverirhat Via Kawamarihat & Kalirhat.	11.85	11.35	0.50		0.00	_	198	74,169	90,229	3,884	168,282
54				ULIPUR		Tabakpur UP-Adarsa bazar.	6.00	5.10	0.90	0.00	0.00		18	37,554	6,721	1,966	46,242
56				DINAJPUR-S		Jhanjira hat-Torongini-Ramdobi hat.	5.20	5.20	0.00	0.00	0.00	7		31,678	2,597	1,667	35,942
59			PANCHAGARH			Dhamore UP - Sonapatila Hat Via Kiron Babu Hat Road	6.42	6.42	0.00		0.00			39,111	0	2,058	41,169
			MYMENSINGH	DHOBAURA		Dhobaura up-Ghosegoan up Rd [Started from Hospita]	6.75	2.97	3.78		0.00			44,226	0	2,302	46,528
62	0.5147	20.10%	RANGPUR	RANGPUR-S	185493002	UZHQ to Nekirhat Bazar via	17.29	14.82	1.57	0.90	0.00	1	114	108,218	45,115	5,667	158,999

Table A16-7 Selected Union road (UNR) upgrading subprojects (one road per Upazila) - by RANKING

	ore	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Su	rface Typ Decemb			nage	s-drai needs n)	Total cos	st (BDT '	000) 201	2 Prices
Ranking	Ranking Score							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
						Horidebpur UPC											
65	0.5018	22.17%	KURIGRAM	KURIGRAM-S	149523006	Pangachi-Bhitorbond road.	9.40	1.75	7.65	0.00	0.00			58,835	0	3,081	61,915
68	0.4969	18.88%	DINAJPUR	NAWABGANJ	127693012	Nandanpur to Kapaldara via Binodnagar	7.20	6.83	0.37	0.00	0.00			43,862	0	2,308	46,170
70	0.4927	36.49%	KISHOREGANJ	KATIADI	348453009	Banagram UP H/QMadhyapara bazar Rd.	5.30	5.30	0.00	0.00	0.00			34,726	0	1,807	36,533
72	0.4899	17.45%	GAIBANDHA	FULCHARI	132213004	Udakhali U.P H/Q-Udakhali Bazar	3.98	3.98	0.00	0.00	0.00			24,911	0	1,304	26,215
			SHERPUR	JHENAIGATI		Jhinaigati GC-Sribordi RHD Road via Garjaripa UP.	9.44	4.26	5.18	0.00				61,218	0	3,189	64,408
				ISHWARGANJ		Mogtola U.P-Modhupur Bazar Road.	6.15	4.45	1.70	0.00	0.00			40,295	0	2,097	42,392
78	0.4805	14.15%	THAKURGAON	HARIPUR		Bakua UP Office-Chapdahat Road.Via Buzrok,Singhari.	10.45	10.45	0.00	0.00	0.00			63,661	0	3,350	67,011
80	0.4770	15.76%	DINAJPUR	PARBATIPUR	127773011	R & H Road at Jakerganj-Chaklardanga hat via Sundarpir, Gomostapara ,Belichandi UP	9.60	9.35	0.00	0.25	0.00		6	58,483	2,226	3,078	63,787
82			NETROKONA	KHALIAJURI		Satgaon Bazar-Chakua UP (Asadpur Ferry Ghat) road via khalapara	6.31	6.31	0.00	0.00	0.00			41,343	0	2,152	43,495
83			NETROKONA	KALMAKANDA		Langura UP Office-Rahimpur Bazar via Nalchapra Bz. Rd.	7.20	4.90	2.30	0.00				61,377	0	2,455	63,792
84			KISHOREGANJ	HOSSAINPUR		Char Pumdi bazar-Pumdi UP H/Q Road	4.45	3.85	0.60	0.00		7	34	,	15,671	1,517	46,345
87			KISHOREGANJ	ITNA		Dhanpur UP-Janatagonj Bazar Road	11.80	10.75	0.00	0.00		5		77,314	1,921	4,023	83,258
90			TANGAIL	GOPALPUR		Syedpur-Nagdasimla UP office	2.13	1.55	0.58	0.00				13,813	0	720	14,533
91			TANGAIL	KALIHATI		Kokdohara-Pathalia Road via Bagutia	16.89	14.89	2.00	0.00		112		109,532	45,226	5,706	160,464
92			NETROKONA	DURGAPUR		Durgapur UP office(Attraikhali)-Fanda bazar rd.	3.70	3.70	0.00	0.00		45		29,952	18,086	1,262	49,299
94	0.4159	19.60%	NETROKONA	KENDUA	372473005	Goradoba UP office-Bashati bazar via Biddha ballab and Goradoba Bazar	6.95	6.95	0.00	0.00	0.00			56,276	0	2,370	58,647
96				BHAIRAB		Shimulkandi UP H.Q-Ananda Bazar Rd.	4.71	3.00	1.71	0.00				30,860	0	1,606	32,466
97			KISHOREGANJ	PAKUNDIA		Tarakandi bazar-Char Faradi UP Rd.	5.79	4.60	1.19	0.00	0.00			37,949	0	1,975	39,924
98			NETROKONA	PURBADHALA		Netrokona (Hatkhola bazar)-Dhala Mulgaon UP road	3.50	2.06	1.44	0.00				22,932	0	1,193	24,125
99				KARIMGANJ		Kadirjangal UP H/Q-Nilganj GC Road via Hatrapara Bazar	5.80	4.52	0.00	1.28		10		38,002	3,687	1,978	43,667
100	0.3625	13.64%	NETROKONA	MOHANGANJ	372633003	Mohonganj Upazila H/Q	3.85	2.85	0.62	0.00	0.38			25,225	0	1,313	26,538

	Score	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Su	rface Typ Decemb			Cross nage I (n	needs	Total co	st (BDT	'000) 20 1	12 Prices
Ranking	Ranking Sc							Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
						(Satur)-Maghan Shiadhar UP rd.											
101	0.3600	15.79%	GAIBANDHA	SAGHATA		Saghata GC-Kachua UP Office via Ullah Sonatala Bazar	7.40	0.75	6.65	0.00	0.00			46,317	0	2,425	48,742
103	0.3530	12.56%	TANGAIL	MIRZAPUR	393663005	Bhabkhanda Bazar-Khagutia bazar Anaitola UP Road	5.06	1.97	3.09	0.00	0.00	12		32,814	4,626	1,710	39,150
104	0.3420	27.08%	KISHOREGANJ	KISHOREGANJ-S	348493002	Jalalpur bazar-Majkhapanj UP Rd.	3.28	0.79	2.49	0.00	0.00			21,491	0	1,118	22,609
105	0.2792	13.32%	KISHOREGANJ	KULIARCHAR	348543003	Kuliarchar UZHQ to Nowapara Bazar	4.10	1.34	2.30	0.46	0.00			26,863	0	1,398	28,261
106	0.2590	12.82%	KISHOREGANJ	BAJITPUR	348063001	Ujanchar bazar-Halimpur UP Rd.	7.06	2.86	4.20	0.00	0.00			46,257	0	2,407	48,665
47 UN	NR						331.51	263.81	63.38	2.89	1.43	416	294	2,141,589	279,401	110,290	2,531,279

Notes: The total span of cross-drainage structures required is the sum of the existing gaps plus the existing structures which are damaged and must be replaced Nilphamari, Kishoreganj, Road 173453023, replacement structures is negative - a 100m bridge is already under construction

Additional UNR appraised to meet target of 'one road per Upazila'

	Score							Su	rface Typ Decemb			nage	s-drai needs n)	Total c	cost (BDT '	000) 2012	Prices	
Ranking	Ranking Sc	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total	
13	0.6294	24.40%	JAMALPUR	DEWANGANJ	339153012	Bahadurabad UP-Shekpara Bazar	3.00	3.00	0.00	0.00	0.00	45		19,455	18171	1,014	38,640	İ
			JAMALPUR DISTRICT			1	3.00	3.00	0.00	0.00	0.00	45		19,455	18171	1,014	38,640	
106	0.2590		KISHOREGANJ	BAJITPUR	348063001	Ujanchar bazar-Halimpur UP Rd.	7.06	2.86	4.20	0.00	0.00			46,257	0	2,407	48,665	1
96	0.3996	29.19%	KISHOREGANJ	BHAIRAB	348113003	Shimulkandi UP H.Q-Ananda Bazar Rd.	4.71	3.00	1.71	0.00	0.00			30,860	0	1,606	32,466	
			KISHOREGANJ	HOSSAINPUR		Char Pumdi bazar-Pumdi UP H/Q Road	4.45	3.85	0.60	0.00	0.00		34	29,156	15,671	1,517	46,345	An
87	0.4485	19.60%	KISHOREGANJ	ITNA	348333002	Dhanpur UP-Janatagonj Bazar Road	11.80	10.75	0.00	0.00	1.05	5		77,314	1,921	4,023	83,258	Annexes of Final Report
99	0.3637	18.15%	KISHOREGANJ	KARIMGANJ	348423007	Kadirjangal UP H/Q-Nilganj GC Road via Hatrapara Bazar	5.80	4.52	0.00	1.28	0.00	10		38,002	3,687	1,978	43,667	s of F
70	0.4927	36.49%	KISHOREGANJ	KATIADI		Banagram UP H/QMadhyapara bazar Rd.	5.30	5.30	0.00	0.00	0.00			34,726	0	1,807	36,533	inal F
104	0.3420	27.08%	KISHOREGANJ	KISHOREGANJ-S		Jalalpur bazar-Majkhapanj UP Rd.	3.28	0.79	2.49	0.00	0.00			21,491	0	1,118	22,609	lepor
			KISHOREGANJ	KULIARCHAR	348543003	Kuliarchar UZHQ to Nowapara Bazar	4.10	1.34	2.30	0.46	0.00			26,863	0	1,398	28,261	, T
97	0.3710	17.80%	KISHOREGANJ	PAKUNDIA	348793002	Tarakandi bazar-Char Faradi UP Rd.	5.79	4.60	1.19	0.00	0.00			37,949	0	1,975	39,924	
39	0.5543		KISHOREGANJ	TARAIL	348923004	Thana H.Q-Dhamiha Bazer	3.54	3.54		0.00	0.00			23,194	0	1,207	24,401	l
			KISHOREGANJ			10	55.83	40.55	12.49	1.74	1.05	22	34	365,811	21,279	19,037	406,128	
61	0.5161	16.66%	DISTRICT MYMENSINGH	DHOBAURA	361163001	Dhobaura up-Ghosegoan up Rd [Started from Hospita]	6.75	2.97	3.78	0.00	0.00			44,226	0	2,302	46,528	
77	0.4816	12.90%	MYMENSINGH	ISHWARGANJ	361313006	Mogtola U.P-Modhupur Bazar Road.	6.15	4.45	1.70	0.00	0.00			40,295	0	2,097	42,392	
33	0.5742	30.77%	MYMENSINGH	MYMENSINGH-S	361523004	Dapunia UP-Montala Bazar Rd. via Shorshamala Bazar	6.80	6.80	0.00	0.00	0.00	30		44,554	12,057	2,319	58,929	
38	0.5551	17.90%	MYMENSINGH	NANDAIL	361723007	Chandipasha U.P-Shialdhara Bazar Road via Bashati bazaar	9.60	9.60	0.00	0.00	0.00			62,899	0	3,273	66,173	
			MYMENSINGH	•		4	29.30	23.82	5.48	0.00	0.00	30	0	191,974	12,057	9,991	214,021	
02	0 4207		DISTRICT		272192012	Durantin	2 70	2 70	0.00	0.00	0.00	45	r	20.072	10.007	1.2(2)	40.200	1
92	0.4307	17.00%	NETROKONA	DURGAPUR	5/2183012	Durgapur UP office(Attraikhali)-Fanda bazar	3.70	3.70	0.00	0.00	0.00	45		29,952	18,086	1,262	49,299	ł

Table A16-8 Selected Union road (UNR) upgrading subprojects (one road per Upazila) - by DISTRICT

	Score							Su	rface Typ Decemb			0	s-drai needs n)	Total c	ost (BDT '	000) 2012	Prices
Ranking	Ranking Sc	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
						rd.											
83	0.4605	28.20%	NETROKONA	KALMAKANDA	372403010	Langura UP Office-Rahimpur Bazar via Nalchapra Bz. Rd.	7.20	4.90	2.30	0.00	0.00			61,377	0	2,455	63,792
94	0.4159	19.60%	NETROKONA	KENDUA	372473005	Goradoba UP office-Bashati bazar via Biddha ballab and Goradoba Bazar	6.95	6.95	0.00	0.00	0.00			56,276	0	2,370	58,647
82	0.4637	31.26%	NETROKONA	KHALIAJURI	372383007	Satgaon Bazar-Chakua UP (Asadpur Ferry Ghat) road via khalapara	6.31	6.31	0.00	0.00	0.00			41,343	0	2,152	43,495
100	0.3625	13.64%	NETROKONA	MOHANGANJ	372633003	Mohonganj Upazila H/Q (Satur)-Maghan Shiadhar UP rd.	3.85	2.85	0.62	0.00	0.38			25,225	0	1,313	26,538
98	0.3682	18.54%	NETROKONA	PURBADHALA		Netrokona (Hatkhola bazar)-Dhala Mulgaon UP road	3.50	2.06	1.44	0.00	0.00			22,932	0	1,193	24,125
			NETROKONA			6	31.51	26.77	4.36	0.00	0.38	45	0	237,065	18,086	10,745	265,895
74	0 4885	24 90%	DISTRICT SHERPUR	JHENAIGATI	389373005	Jhinaigati GC-Sribordi RHD	9.44	4.26	5.18	0.00	0.00			61,218	0	3,189	64,408
<i>,</i> .	0.1005	21.9070	SHERI OK			Road via Garjaripa UP.	2.11	1.20	5.10	0.00	0.00			01,210	Ű	5,107	
			SHERPUR			1	9.44	4.26	5.18	0.00	0.00	0	0	61,218	0	3,189	64,408
27	0.5881	37.50%	DISTRICT TANGAIL	DHANBARI	393963019	Kendua-Paiska road	4.50	4.50	0.00	0.00	0.00			29,183	0	1,520	30,703
			TANGAIL	GOPALPUR		Syedpur-Nagdasimla UP office	2.13	1.55	0.58	0.00	0.00			13,813	0	720	14,533
			TANGAIL	KALIHATI		Kokdohara-Pathalia Road via Bagutia	16.89	14.89	2.00	0.00	0.00	112		109,532	45,226	5,706	160,464
103	0.3530	12.56%	TANGAIL	MIRZAPUR		Bhabkhanda Bazar-Khagutia bazar Anaitola UP Road	5.06	1.97	3.09	0.00	0.00	12		32,814	4,626	1,710	39,150
			TANGAIL DISTRICT		_	4	28.58		5.67		0.00		0	185,341	49,852	9,656	244,849
			DINAJPUR	BOCHAGANJ		Mushidhat-Rangaon UP office	5.46	4.18	1.28		0.00			33,262	0	1,750	35,013
			DINAJPUR	DINAJPUR-S		Jhanjira hat-Torongini-Ramdobi hat.	5.20	5.20		0.00	0.00			31,678	2,597	1,667	35,942
			DINAJPUR	NAWABGANJ		Nandanpur to Kapaldara via Binodnagar	7.20	6.83	0.37	0.00	0.00			43,862	0	2,308	46,170
80	0.4770	15.76%	DINAJPUR	PARBATIPUR	127773011	R & H Road at Jakerganj-Chaklardanga hat via Sundarpir, Gomostapara ,Belichandi UP	9.60	9.35	0.00	0.25	0.00		6	58,483	2,226	3,078	63,787
LI		•	DINAJPUR	1		4	27.46	25.56	1.65	0.25	0.00	7	6	167,286	4,823	8,803	180,912

Ranking	Ranking Score	EIRR	District	Upazila	Road Code	Road Name	Total Length (km)	Surface Type (km) as of December 2011				Cross nage (n	needs	Total cost (BDT '000) 2012 Prices			
								Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
I		•	DISTRICT														
72	0.4899	17.45%	GAIBANDHA	FULCHARI		Udakhali U.P H/Q-Udakhali Bazar	3.98	3.98	0.00	0.00	0.00			24,911	0	1,304	26,215
49	0.5305	25.19%	GAIBANDHA	GOBINDAGANJ	132303003	Shakahar U.P-Bager hat GC (Ghoraghat Mazar) Via Deghir hat	8.10	7.70	0.40	0.00	0.00			50,698	0	2,655	53,353
101	0.3600	15.79%	GAIBANDHA	SAGHATA	132883001	Saghata GC-Kachua UP Office via Ullah Sonatala Bazar	7.40	0.75	6.65	0.00	0.00			46,317	0	2,425	48,742
GAIBANDHA 3							19.48	12.43	7.05	0.00	0.00	0	0	121,925	0	6,384	128,309
28	0.5831		DISTRICT KURIGRAM	BHURUNGAMARI	149063002	Jomyonirhat UP-Bhurangamari(Bus stand)	3.15	3.15	0.00	0.00	0.00		8	19,716	2,987	1,032	23,735 39,520
40	0.5487	20.00%	KURIGRAM	CHILMARI	149093003	Thanahat UP office at Gabtola to Ranigonj UPC.	6.00	3.70	2.30	0.00	0.00			37,554	0	1,966	39,520
			KURIGRAM	KURIGRAM-S		Pangachi-Bhitorbond road.	9.40	1.75		0.00	0.00			58,835	0	3,081	61,915
46	0.5338	18.00%	KURIGRAM	NAGESWARI		Nageswari Gc-Hashnabad UP office.	7.50	3.80	3.70	0.00	0.00		6	46,943	2,240	2,458	61,915 51,641 34,692
			KURIGRAM	ROWMARI	149793002	Dantbhanga Feeder(Shalur more)Kazaikata hat	4.70	4.70	0.00	0.00	0.00		10	29,417	3,734	1,540	34,692
54	0.5240	15.60%	KURIGRAM	ULIPUR	149943005	Tabakpur UP-Adarsa bazar.	6.00	5.10		0.00	0.00		18	37,554	6,721	1,966	46,242
KURIGRAM 6 DISTRICT							36.75	22.20	14.55	0.00	0.00	0	42	230,018	15,683	12,044	257,745
50	0.5287	23.90%	LALMONIRHAT	HATIBANDHA	152333010	Dakalibandha to Fepranogre(Dauwabari up) via Ketkibari	11.40	10.15	1.25	0.00	0.00			71,353	0	3,736	75,089
51	0.5268	20.08%	LALMONIRHAT	PATGRAM	152703005	Patgram UP-Varverirhat Via Kawamarihat & Kalirhat.	11.85	11.35	0.50	0.00	0.00	32	198	74,169	90,229	3,884	168,282
	LALMONIRHAT 2								1.75	0.00	0.00	32	198	145,522	90,229	7,620	243,371
35	0.5584		DISTRICT NILPHAMARI	KISHOREGANJ	173453023	Chandkhana UP	10.55	9.45	1.10	0.00	0.00	111	-100	66,032	4.107	3.457	73,597
						Office-Kellabarirhat via Darjitari, Burirhat & Chandkhana ghat.	10.00	2.10		0.00	0.00		100	00,002	.,,	2,.07	
8	0.6601	35.20%	NILPHAMARI	SAYEDPUR	173853009	Banirhat-Shibarhat.	5.20	5.20	0.00	0.00	0.00			32,547	0	1,704	34,251
			NILPHAMARI DISTRICT			2	15.75	14.65	1.10	0.00	0.00	111	-100	98,579	4,107	5,161	107,848
59	0.5187	21.23%	PANCHAGARH	ATWARI	177043004	Dhamore UP - Sonapatila Hat	6.42	6.42	0.00	0.00	0.00			39,111	0	2,058	41,169

Ranking	Ranking Score	EIRR	District	Upazila	Road Code			Surface Type (km) as of December 2011					s-drai needs n)				
						Road Name	Total Length (km)	Earthen	Flexible Paxement (BC)	Brick Pavement	Rigid Pavement (CC/RCC)	Existing Gaps	Replacement Structures	Road	Bridges & Culverts	Road Safety	Total
						Via Kiron Babu Hat Road	_										
			PANCHAGARH DISTRICT	•			1 6.42	6.42	0.00	0.00	0.00	0	0	39,111	0	2,058	41,169
36	0.5574			BADARGANJ		Bisnupur UP-Matherhat via Kaligonj	17.00	14.48	2.53	0.00	0.00			106,403	0	5,571	111,974
62	0.5147	20.10%	RANGPUR	RANGPUR-S		UZHQ to Nekirhat Bazar via Horidebpur UPC	17.29	14.82	1.57	0.90	0.00	1	114	108,218	45,115	5,667	158,999
			RANGPUR DISTRICT				2 34.2	29.30	4.09	0.90	0.00	1	114	214,621	45,115	11,238	270,973
78	0.4805	14.15%	THAKURGAON	HARIPUR		Bakua UP Office-Chapdahat Road.Via Buzrok,Singhari.	10.4	10.45	0.00	0.00	0.00			63,661	0	3,350	67,011
	THAKURGAON DISTRICT						1 10.4	5 10.45	0.00	0.00	0.00	0	0	63,661	0	3,350	67,011
			TOTAL				47 331.5	263.81	63.38	2.89	1.43	416	294	2,141,589	279,401	110,290	2,531,279

Notes: The total span of cross-drainage structures required is the sum of the existing gaps plus the existing structures which are damaged and must be replaced Nilphamari, Kishoreganj, Road 173453023, replacement structures is negative - a 100m bridge is already under construction

Additional UNR appraised to meet target of 'one road per Upazila'