

**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 to Table A1-3.

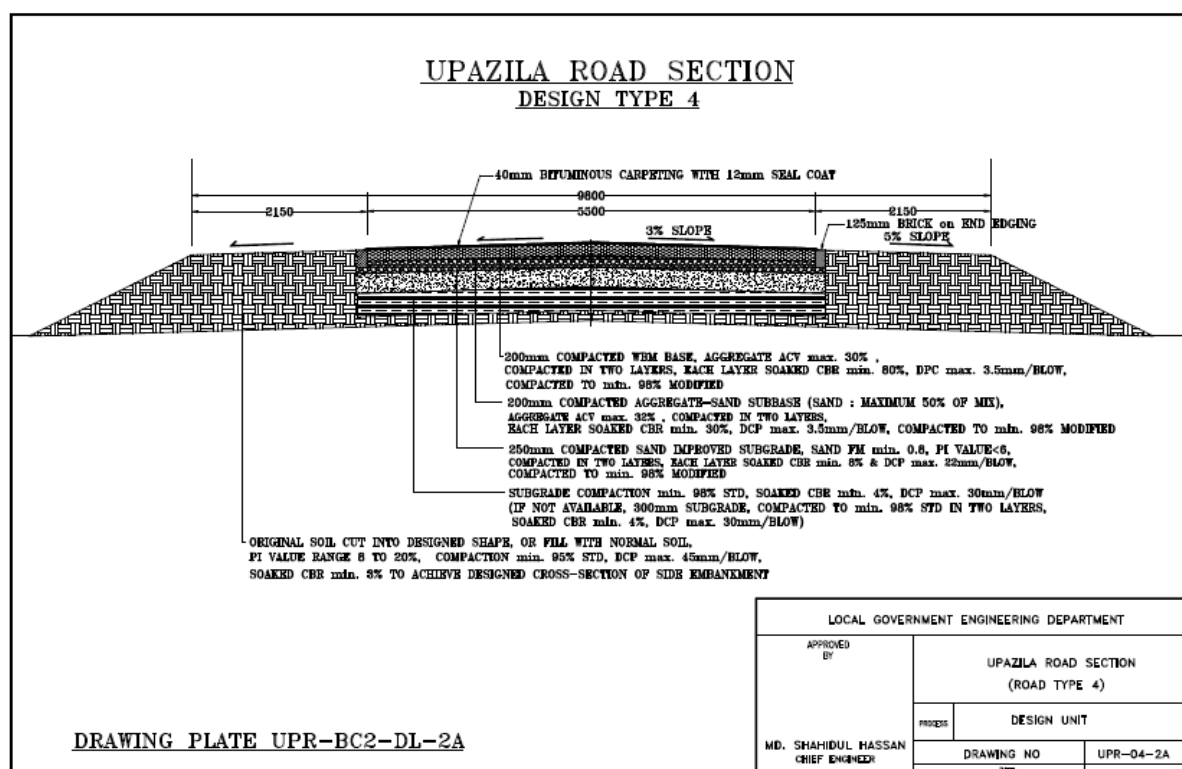


Figure A1-1 Type 4A UZR

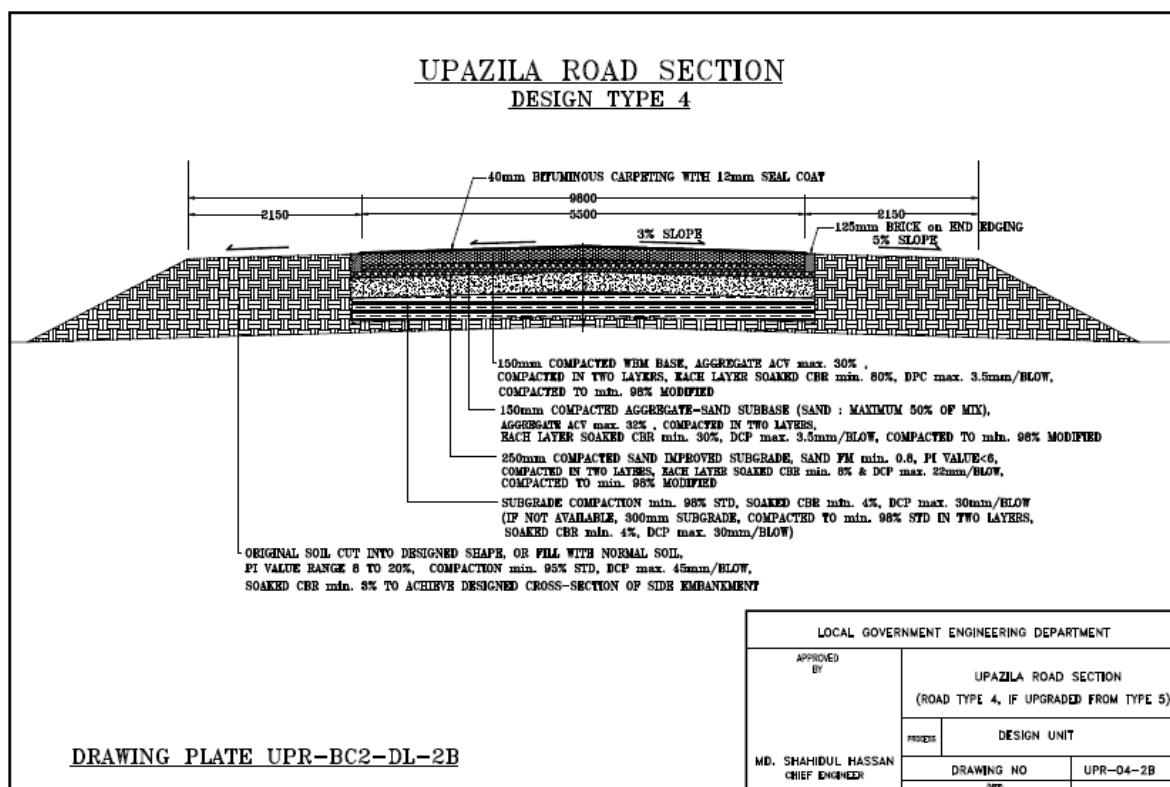


Figure A1-2 Type 4B UZR

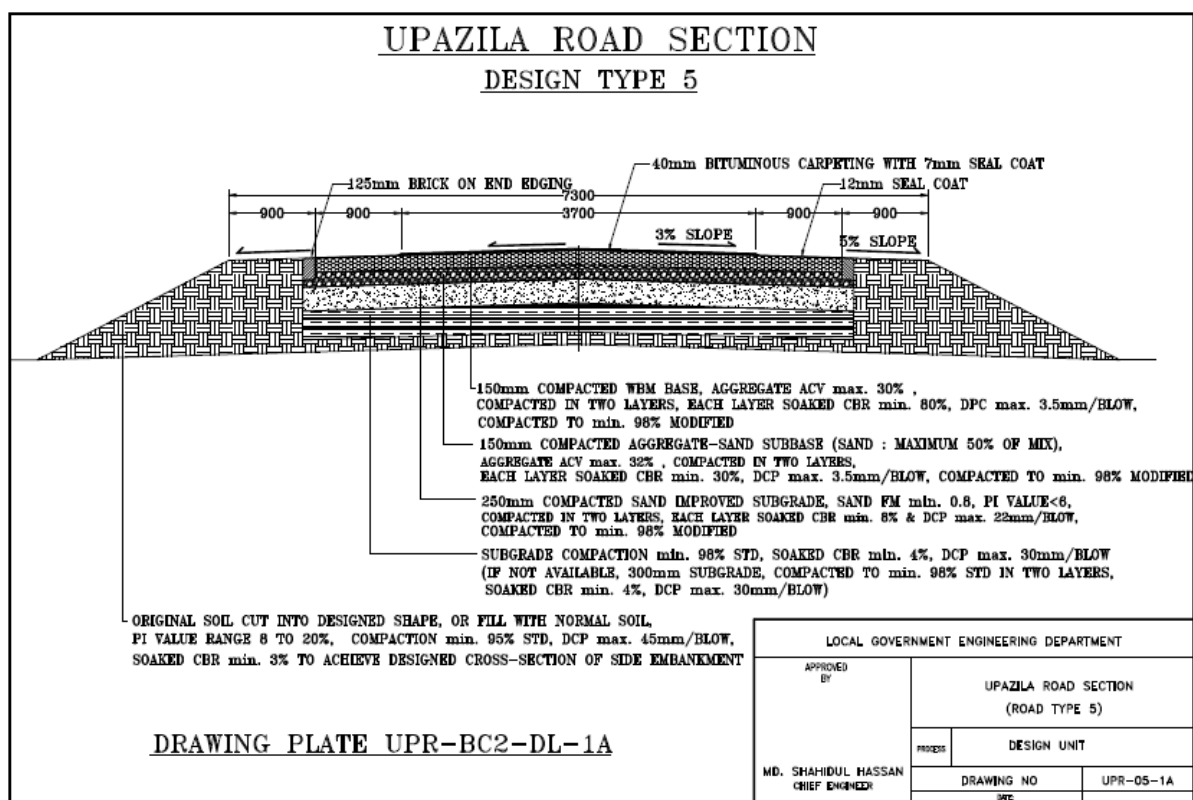


Figure A1-3 Type 5A UZR

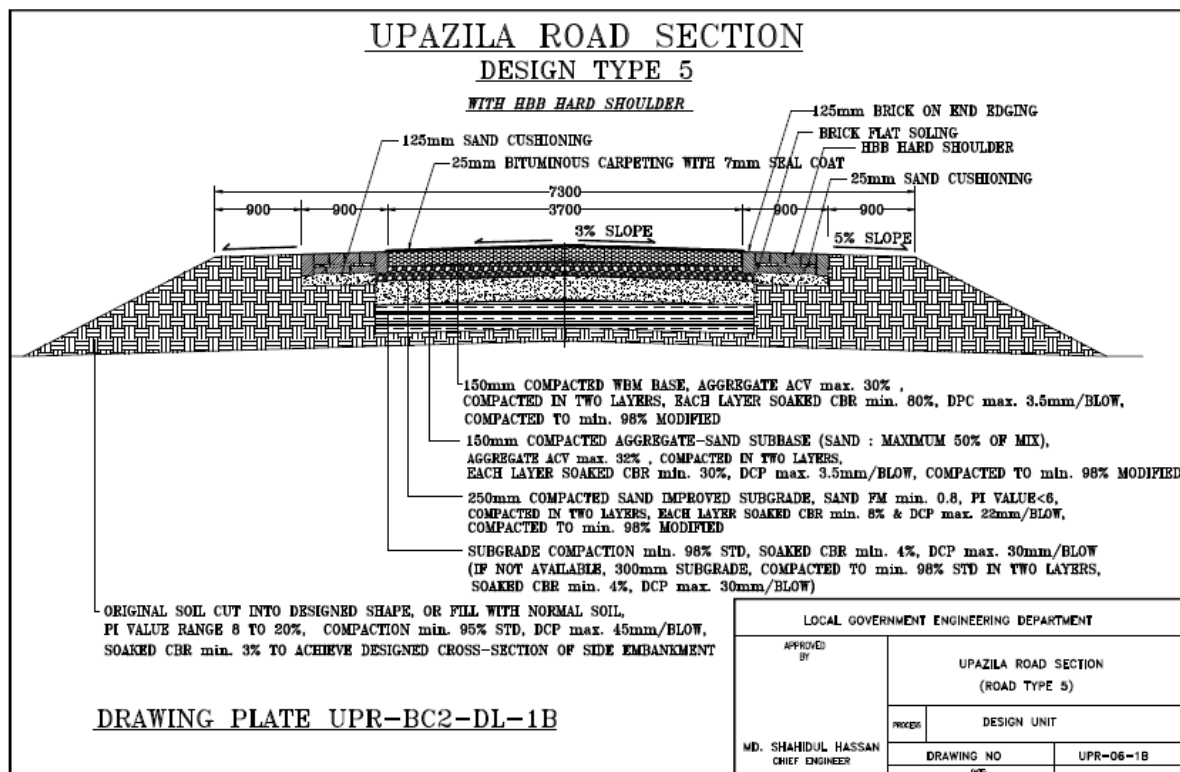


Figure A1-4 Type 5B UZR

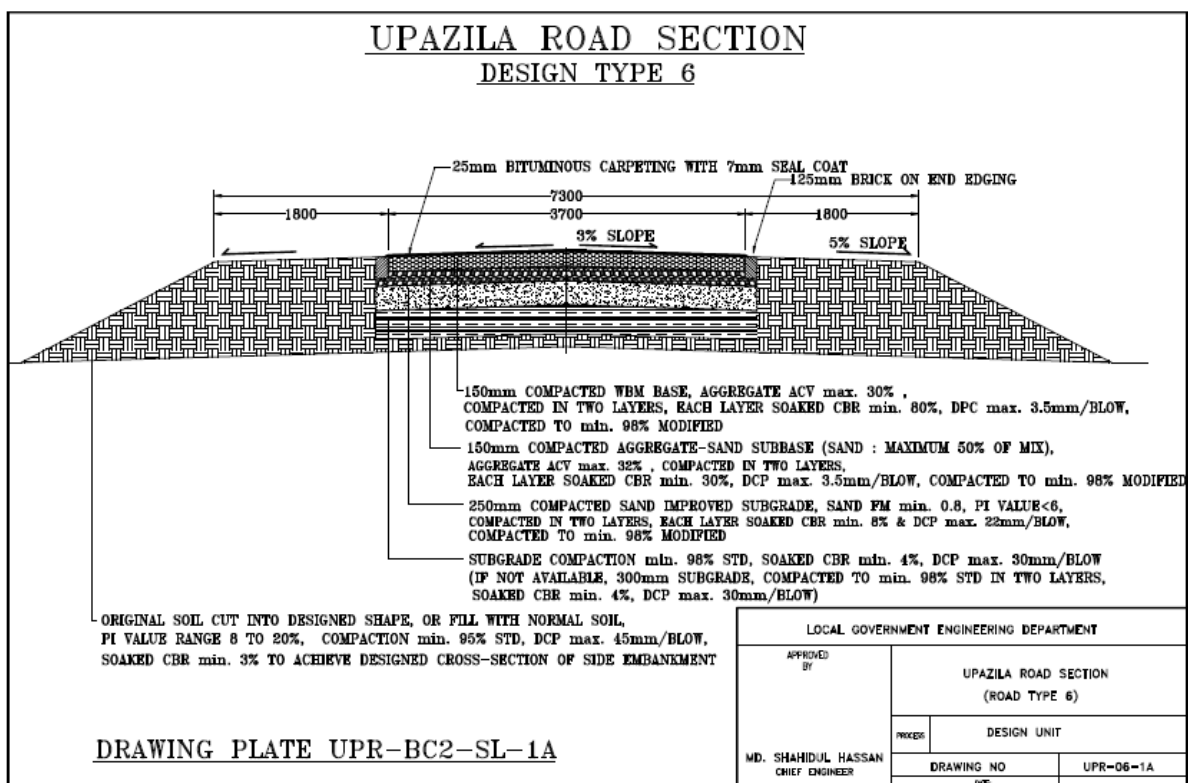


Figure A1-5 Type 6 UZR

**Table A1-1 Technical specifications for Type 4 Upazila road****DESIGN TYPE 4**

1.	Equivalent Axle Loading	:	8.2 Ton
2.	Traffic	:	301 - 600 CV/Day
3.	Growth rate	:	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)	:	Min. 98% (Modified) Compaction DCP Max 3.5mm per blow to ensure Min. 80% SOAKED CBR (Ref. Article 6.0)
10.	Bituminous carpeting	:	40mm BC (Ref. Article 10.0) plus 12mm Seal coat (Ref. Article 12.0)
11.	Double Lane Carriageway width	:	5.5m.
12.	Earthen Shoulder	:	95% STD Compaction DCP Max 45mm per blow to ensure Min 3% SOAKED CBR (Ref. Article 1.1)
13.	Crest width	:	9.80m.
14.	Side Slope	:	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 A1-2 Technical specifications for Type 5 Upazila road****DESIGN TYPE 5**

1.	Equivalent Axle Loading	:	8.2 Ton
2.	Traffic	:	201 - 300 CV/Day
3.	Growth rate	:	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)	:	Min. 98% (Modified) Compaction DCP Max 3.5mm per blow to ensure Min. 80% SOAKED CBR (Ref. Article 6.0)
10.	Bituminous carpeting	:	40mm BC (Ref. Article 10.0) plus 7mm Seal coat (Ref. Article 11.0)
11.	Single Lane Carriageway width	:	3.7m.
12.	Hard Shoulder	:	0.90 Wide Pavement Simile with 12 mm Seal Coat (Ref. Article 12.0)
12.	Earthen Shoulder	:	95% STD Compaction DCP Max 45mm per blow to ensure Min 3% SOAKED CBR (Ref. Article 1.1)
14.	Crest width	:	7.30m.
15.	Side Slope	:	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	:	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)	:	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.	Single Lane Carriageway width	:	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	:	7.30m.
14.	Side Slope	:	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.

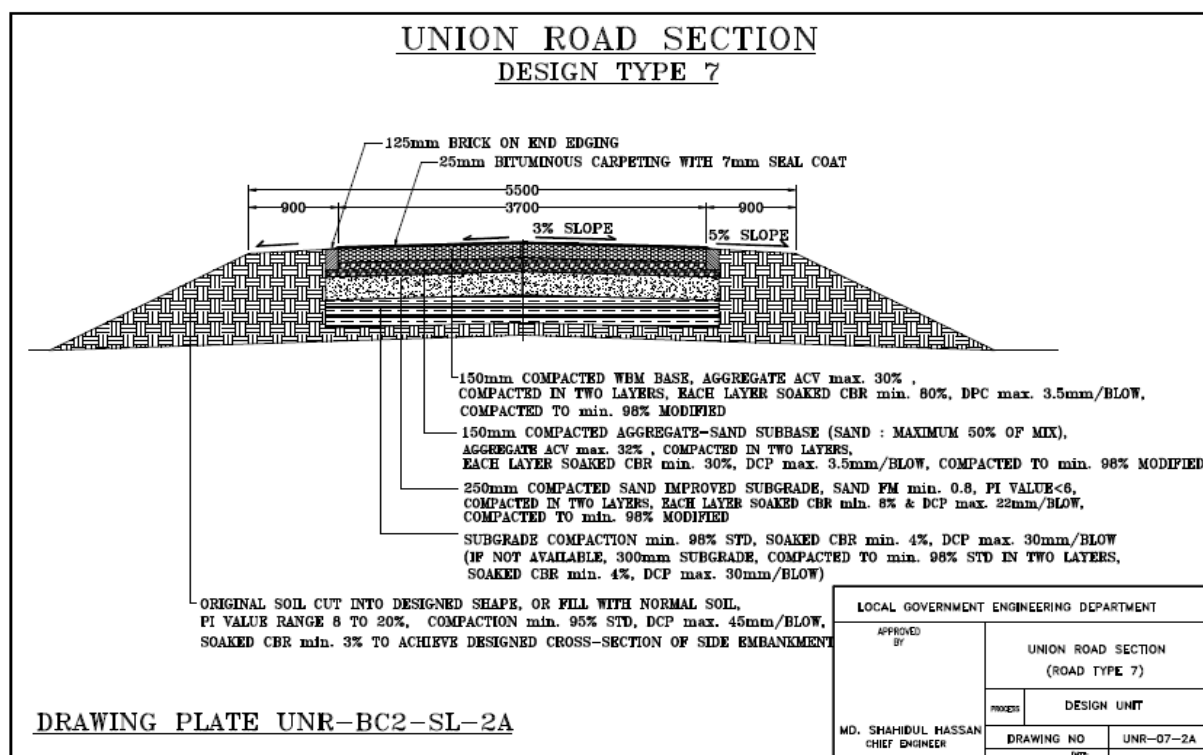


Figure A1-6 Type 7 UNR

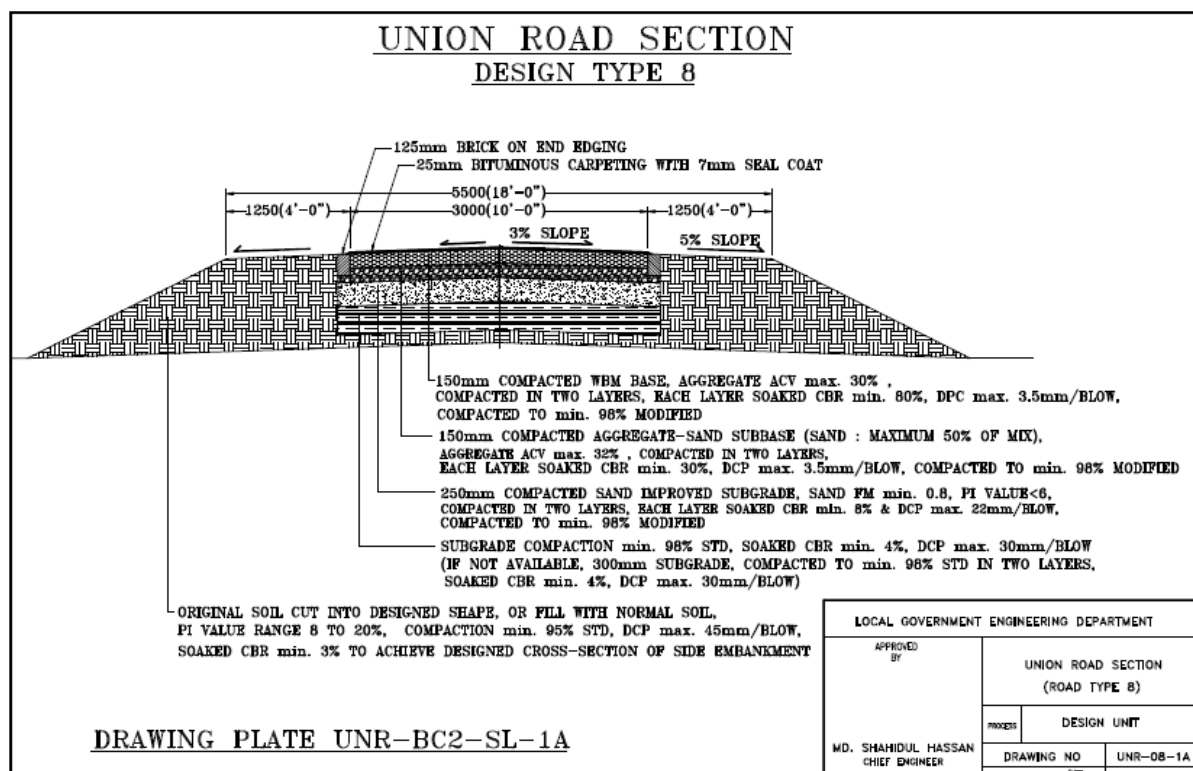


Figure A1-7 Type 8 UNR

**Table A1-4 Technical specifications for Type 7 Union road****DESIGN TYPE 7**

1.	Equivalent Axle Loading	:	8.2 Ton
2.	Traffic	:	51 - 100 CV/Day
3.	Growth rate	:	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 down graded 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 down graded 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	:	25mm BC (Ref. Article 10.0) plus 7mm Seal coat (Ref. Article 11.0)
11.	Single Lane Carriageway width	:	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	:	5.50m
14.	Side Slope	:	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****DESIGN TYPE 8**

1.	Equivalent Axle Loading	:	8.2 Ton
2.	Traffic	:	01 - 50 CV/Day
3.	Growth rate	:	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 down graded 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	:	25mm BC (Ref. Article 10.0) plus 7mm Seal coat (Ref. Article 11.0)
11.	Double Lane Carriageway width	:	3.0m.
12.	Earthen Shoulder	:	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	:	1: 1.5 for clayey soil Road Embankment 1:2 for Clayey Sand Road Embankment 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.

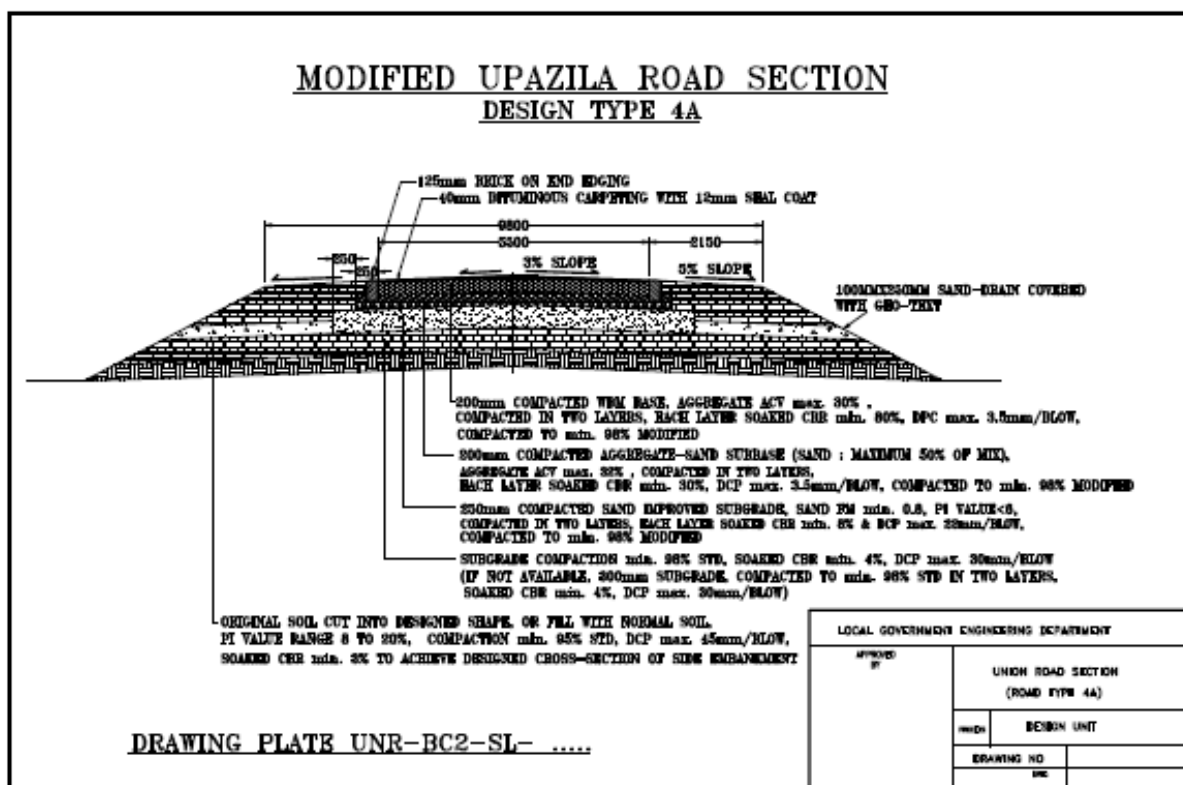


Figure A1-8 Possible modified pavement design, Type 4A

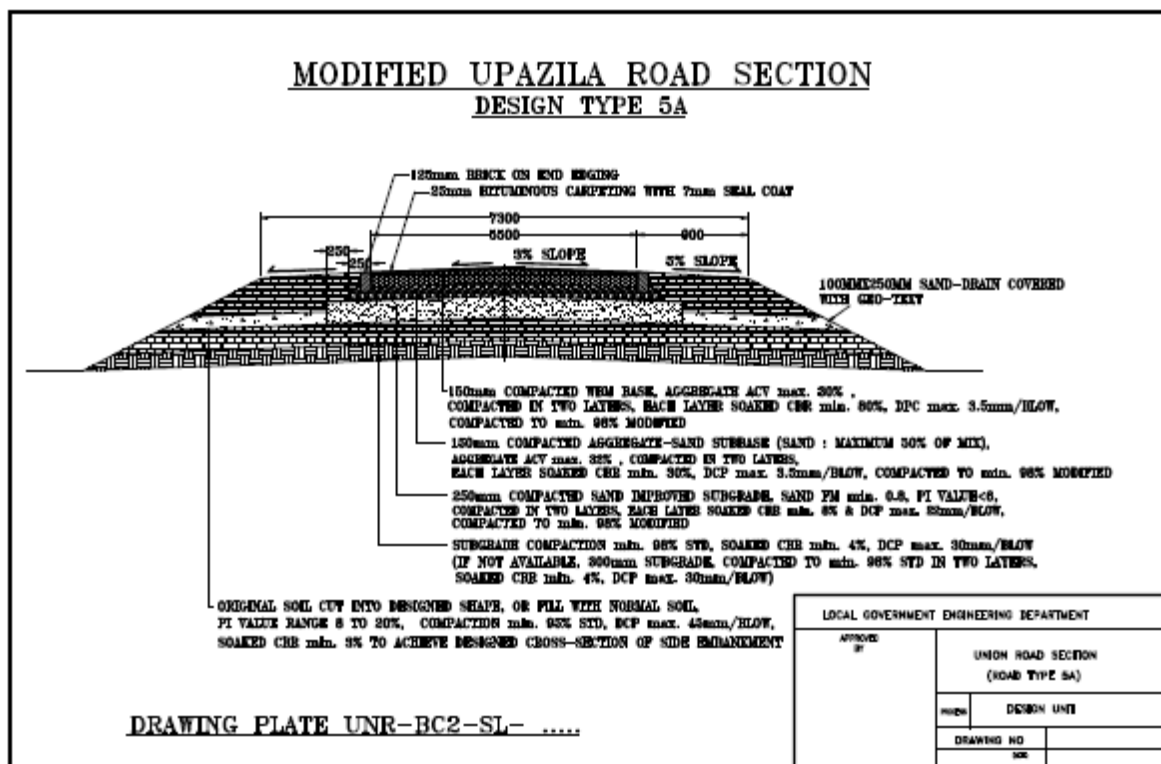


Figure A1-9 Possible modified pavement design, Type 5A

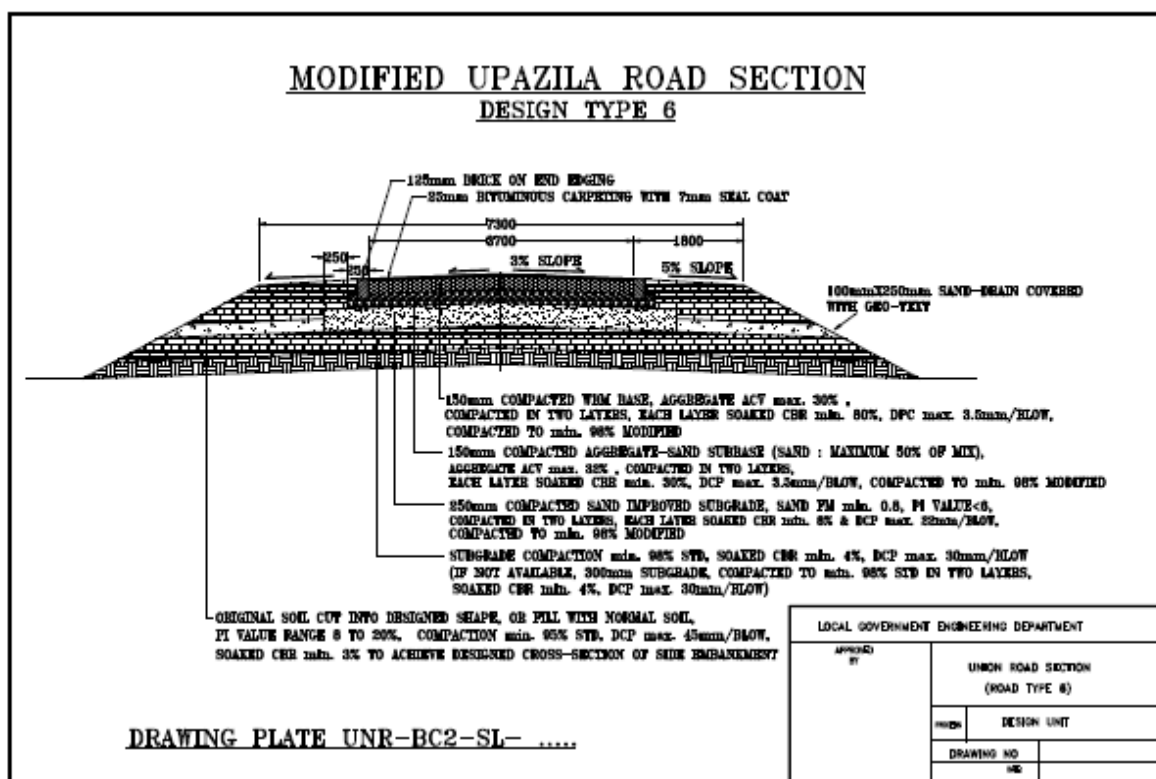


Figure A1-10 Possible modified pavement design, Type 6

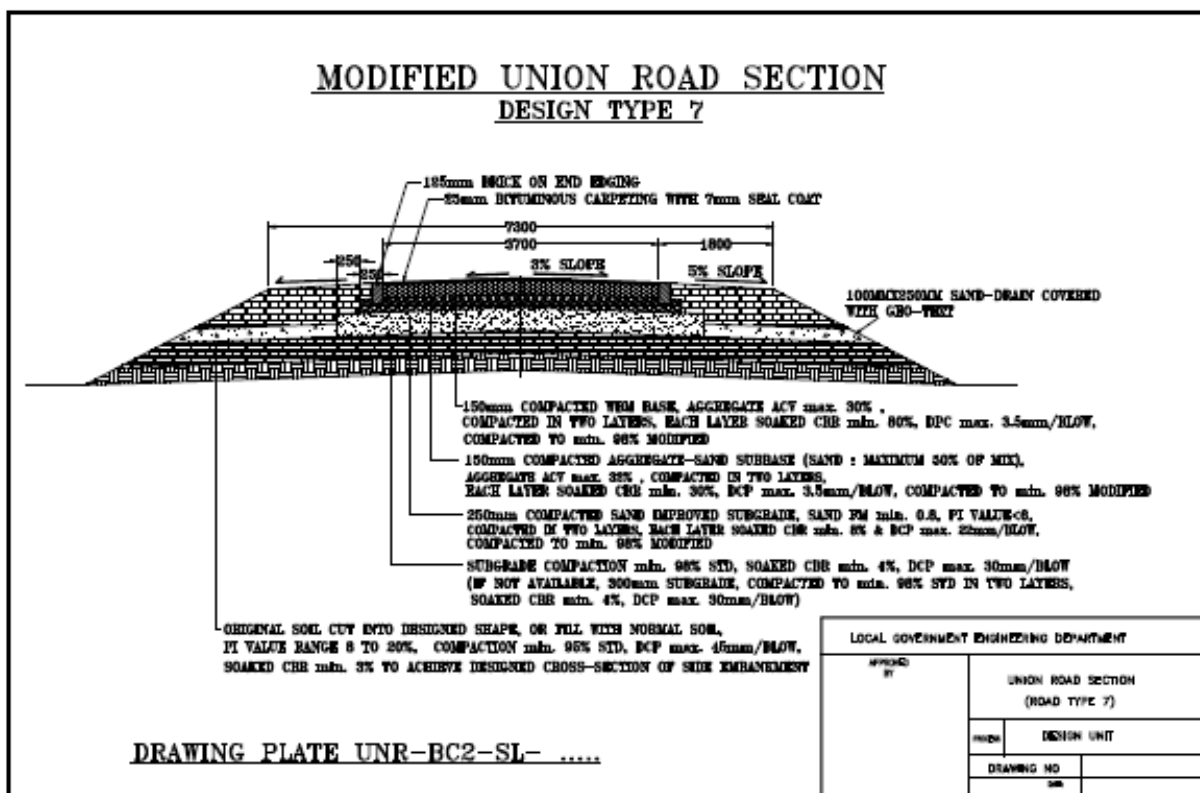


Figure A1-11 Possible modified pavement design, Type 7

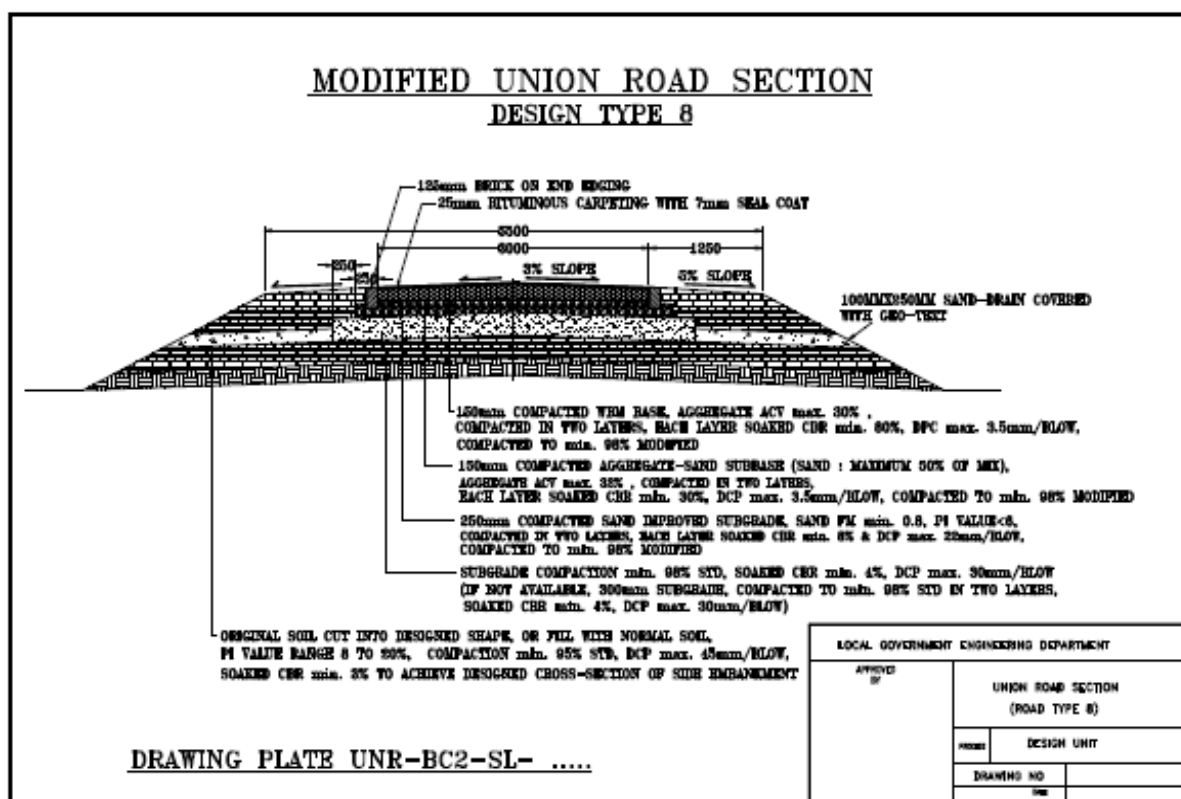


Figure A1-12 Possible modified pavement design, Type 8

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

Sl. no	Item code.	Description	Unit	Quantity	Schedule of Rate 2011/12 (BDT)							
					Mymenshingh Region		Tangail Region		Rangpur Region		Dinajpur 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	Sqm	5500	50.15	275,825.00	50.15	275,825.00	49.06	269,830.00	47.37	260,535.00
2	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 <sup>st</sup> 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
					<b>Total</b>	<b>10,509,570.00</b>	<b>Total</b>	<b>10,252,108.15</b>	<b>Total</b>	<b>9,946,137.05</b>	<b>Total</b>	<b>9,293,482.10</b>

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

Sl. no	Item code.	Description	Unit	Quantity	Schedule of Rate 2011/12 (BDT)							
					Mymenshingh Region		Tangail Region		Rangpur Region		Dinajpur 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	Sqm	5500	50.15	275,825.00	50.15	275,825.00	49.06	269,830.00	47.37	260,535.00
2	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	1638	487.55	798,363.13	487.55	798,363.13	422.15	691,270.63	334.13	547,137.88
4	3.2.02.02	Providing compacted aggregate sand sub-base course with 38 mm downgraded 1 <sup>st</sup> 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	2,436,226.10
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
11		Sand Drain	LS	133	500.00	66,500.00	500.00	66,500.00	500.00	66,500.00	500.00	66,500.00
					<b>Total</b>	<b>10,784,230.63</b>	<b>Total</b>	<b>10,523,058.28</b>	<b>Total</b>	<b>10,202,581.68</b>	<b>Total</b>	<b>9,523,301.98</b>

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.

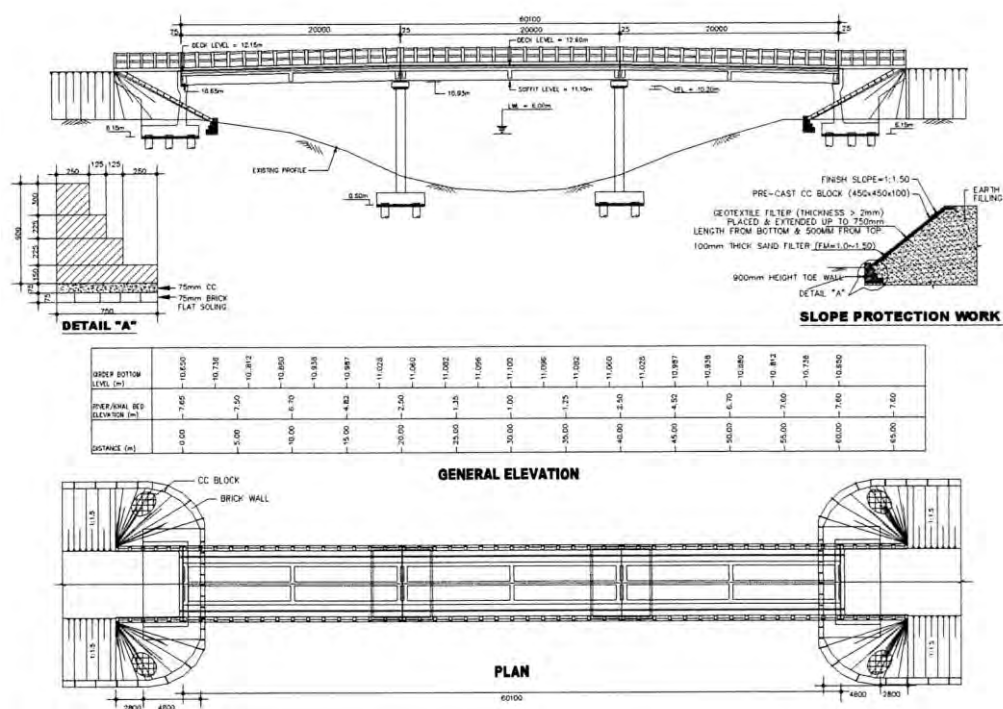


Figure A1-13 Double-lane bridge

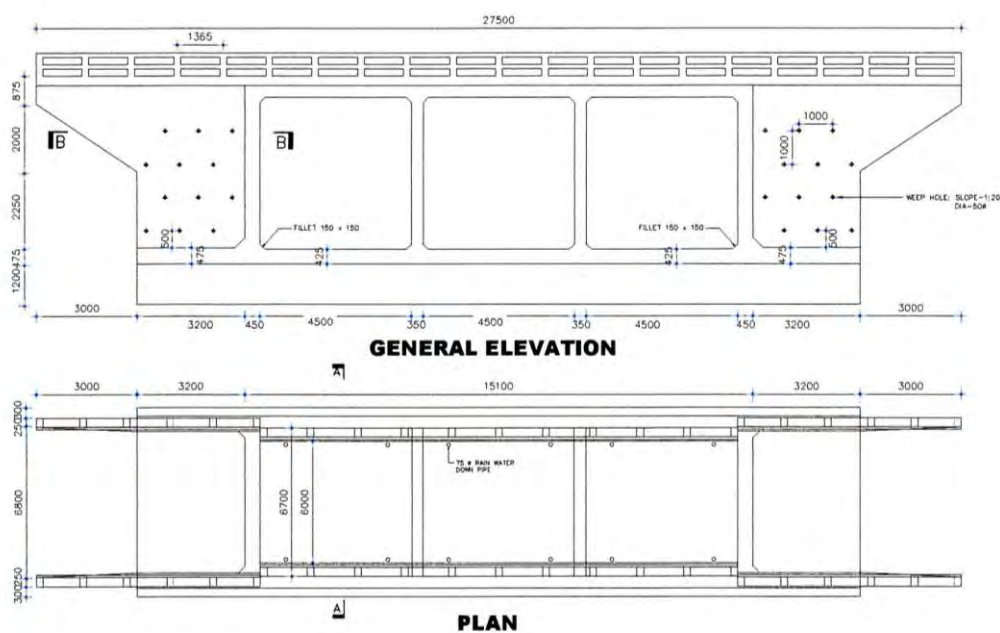
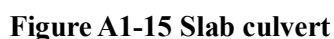
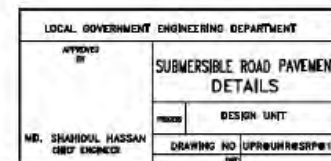


Figure A1-14 Double-lane three-vent box culvert



## **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

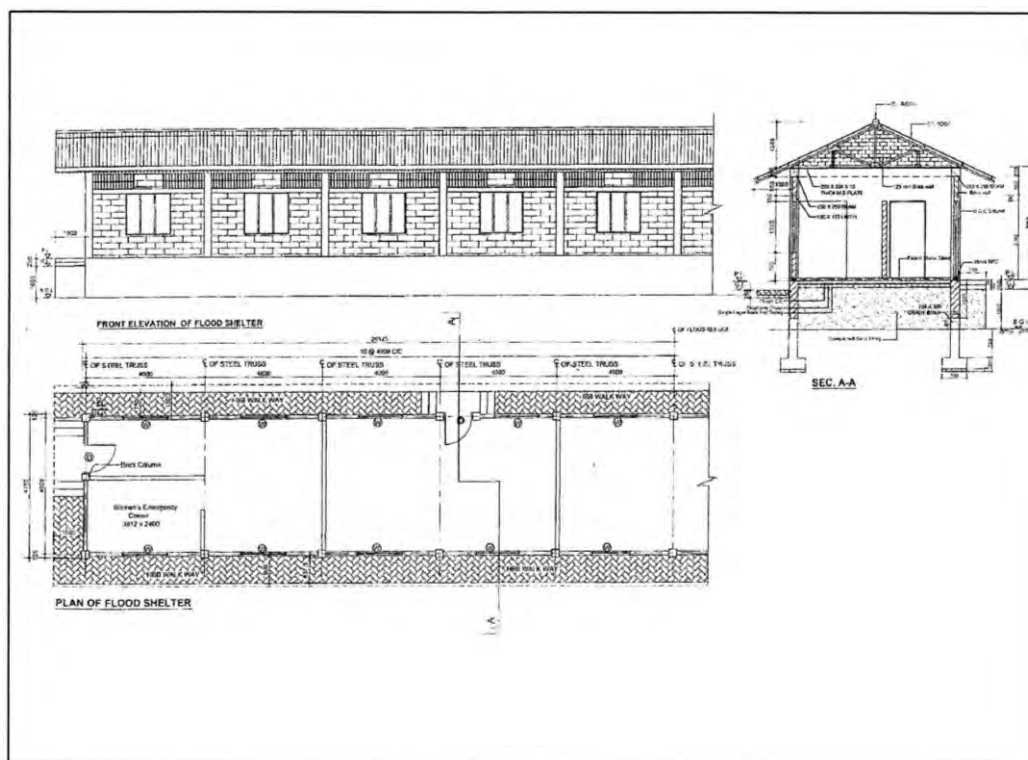


Figure A1-18 Flood shelter

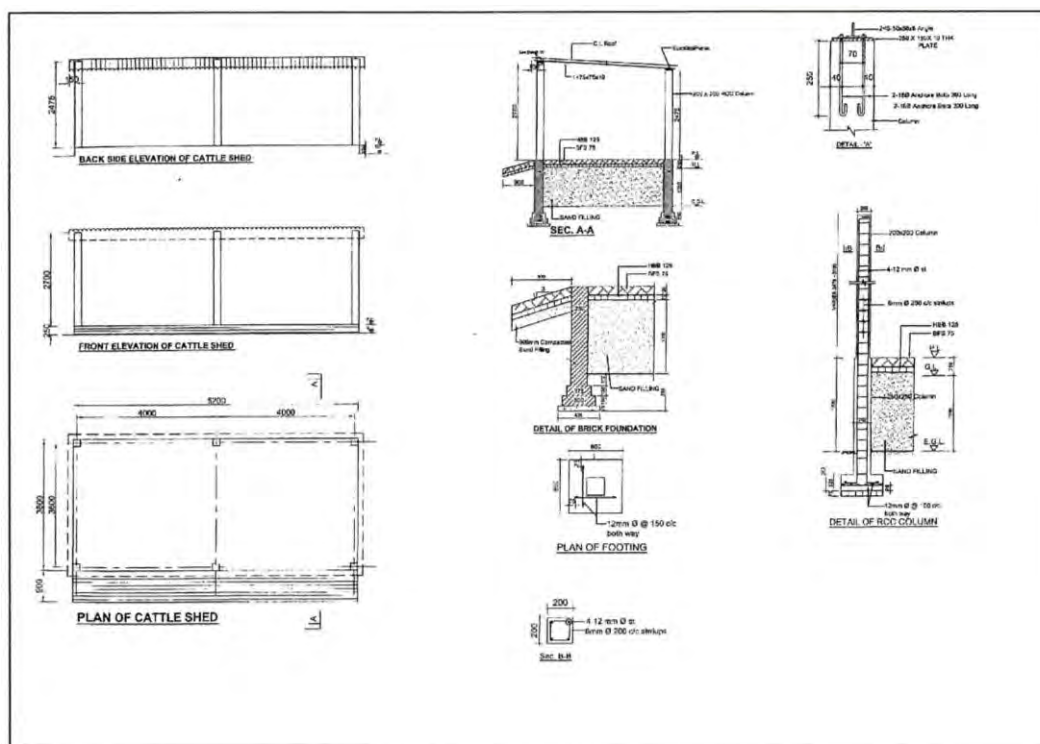


Figure A1-19 Cattle shed



## **Annex 2**

### **Standards for markets and ghats**

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## 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.

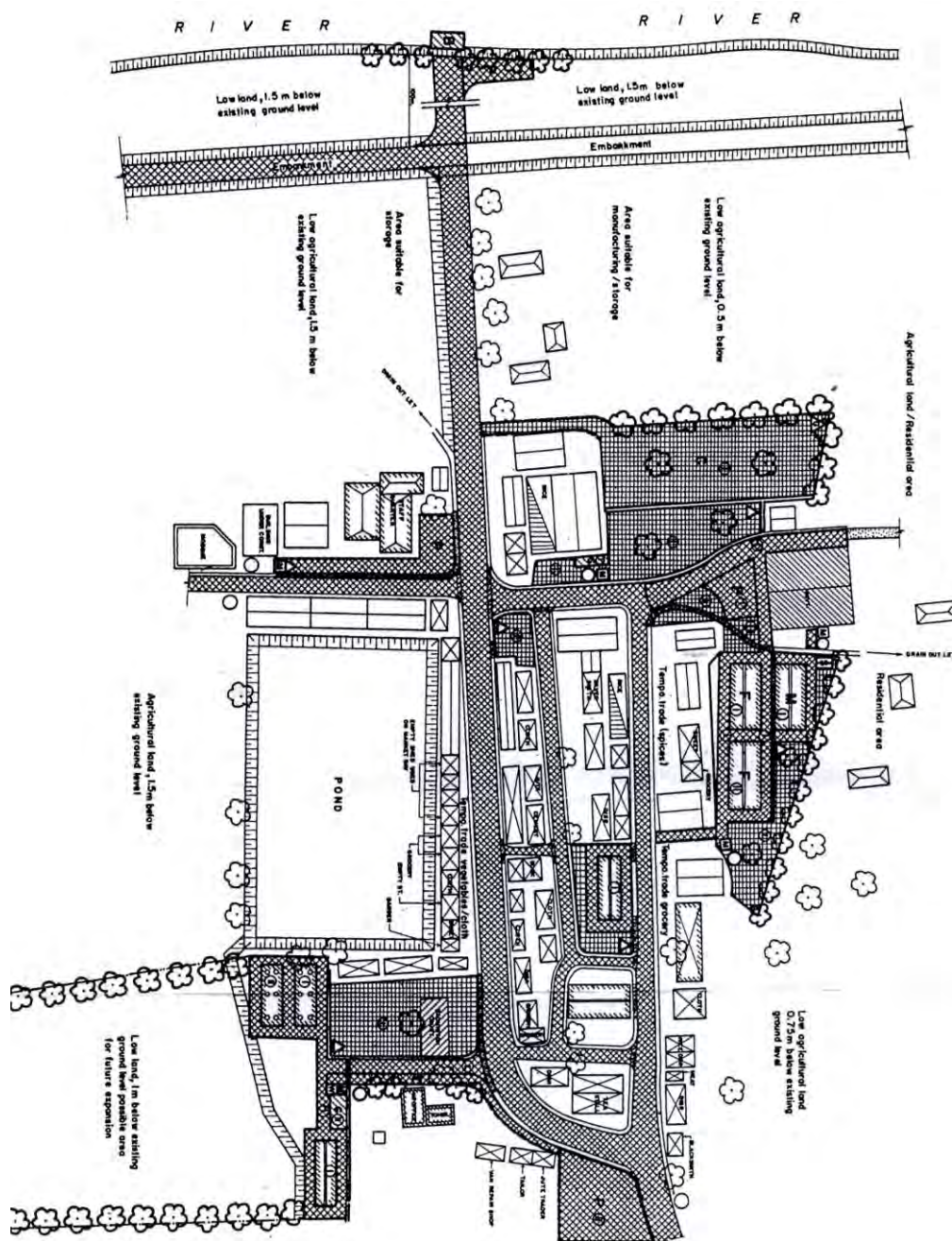
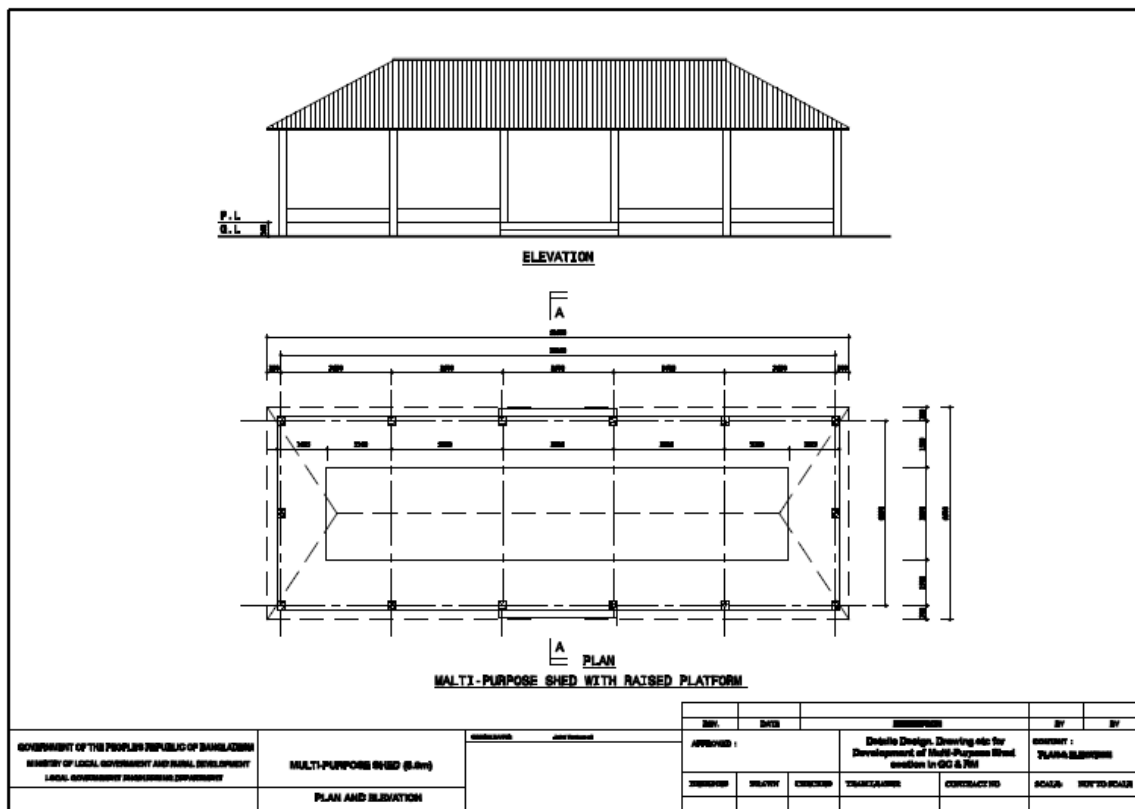


Figure A2-1 Growth center market layout plan

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

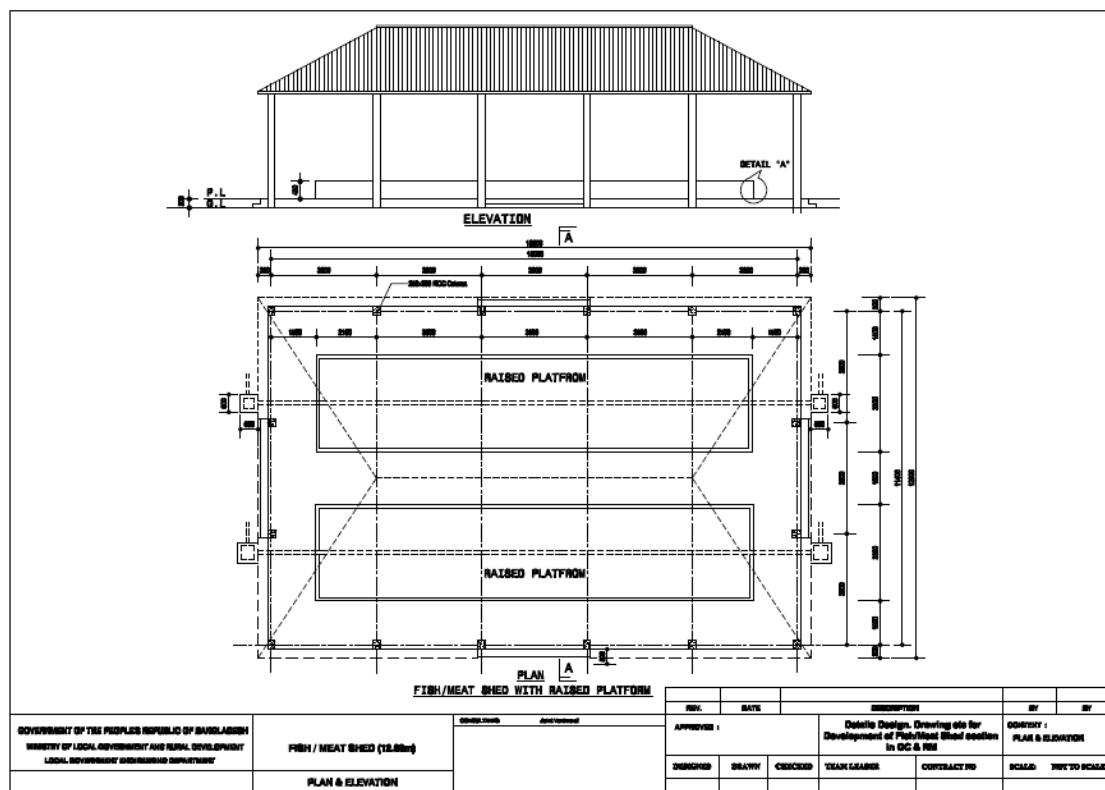


Figure A2-3 Fish selling shed

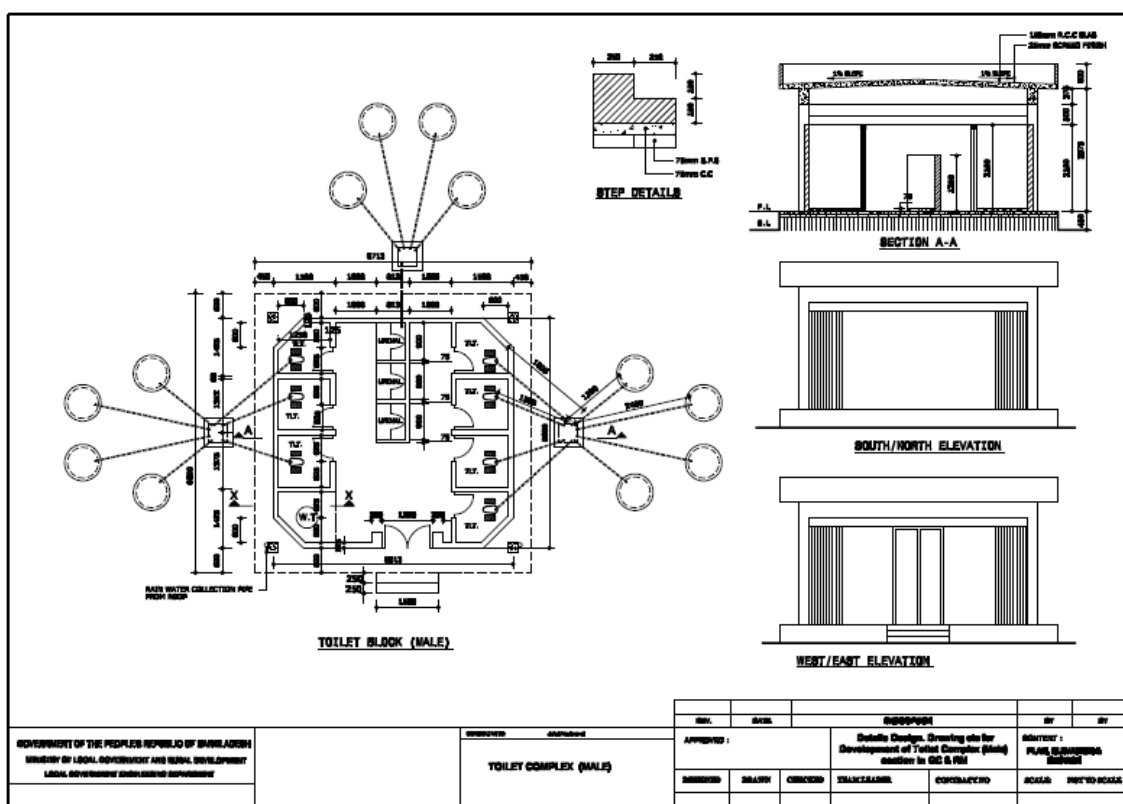


Figure A2-4 Toilet block

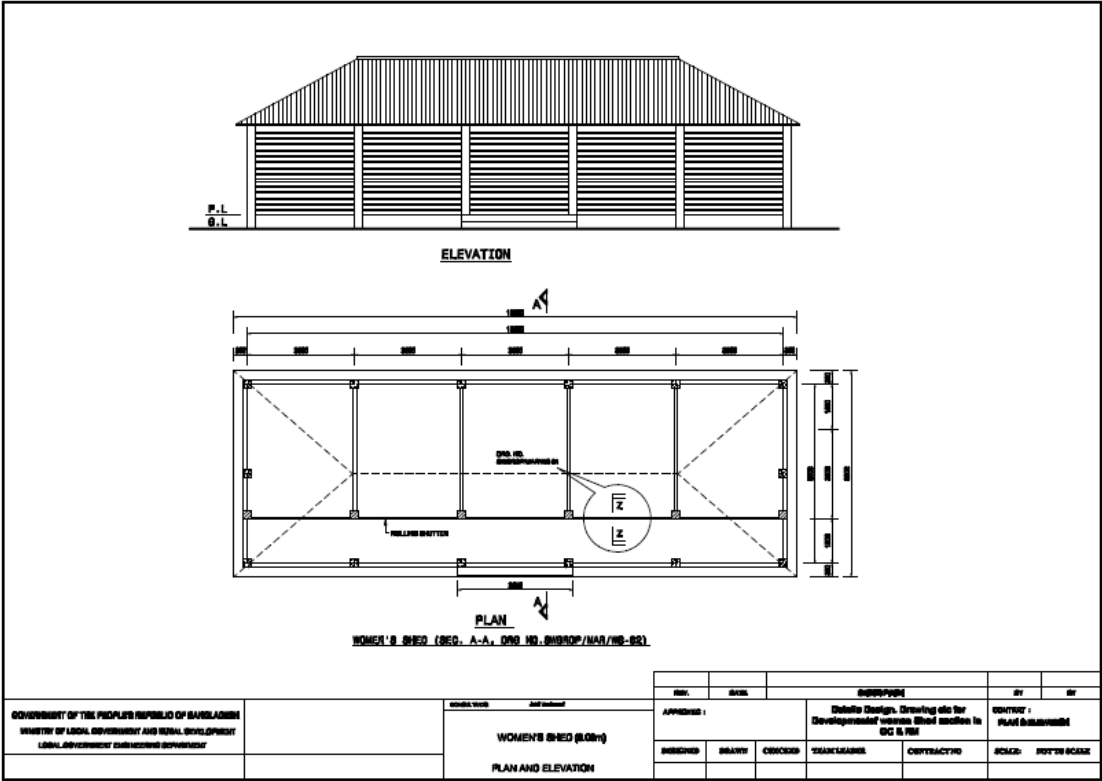


Figure A2-5 Women's Market Section

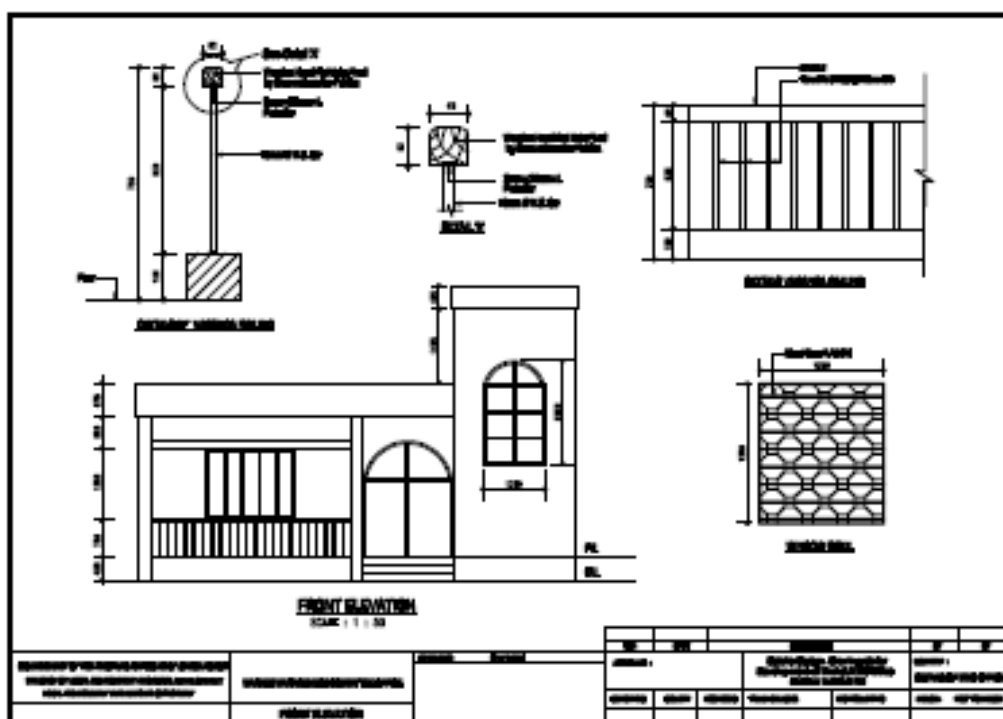
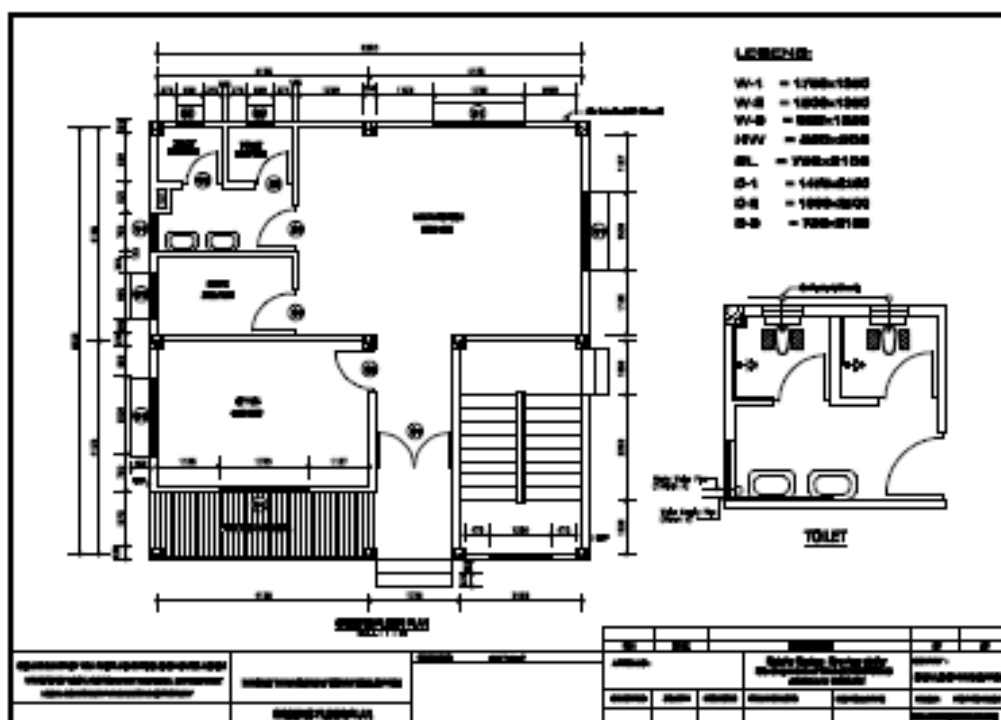


Figure A2-6 Market Management Committee office

## **Annex 3**

### **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 A3-1.

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 A3-1.

#### **(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 A3-2.

#### **(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 A3-3.

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 A3-4.

#### **(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 A3-5.

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 A3-2 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 A3-6.

#### **(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 A3-7.

#### **(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.

**Table A3-1 Applicable thresholds by procurement types and tendering methods**

Procurement Type	National/ International Procurement	Tendering Method	Threshold (BDT)
Procurement of Goods	National	RFQ Method	up to 0.5 million
	International		
	National	Limited Tendering Method	up to 2.5 million
	National	Open Tendering Method	above 2.5 million
Supply & Installation of Plant & Equipment	International	Open Tendering Method	any value
	National	Single Stage and Two Stage Tendering method Procurement under “Turnkey Contract”	
	International		
	National	Prequalification	above 150 million
Works	National	RFQ Method	up to 0.5 million
	International		
	National	Limited Tendering Method	up to 10 million
	Procurement		
Works or Design Build Infrastructure	National	Open Tendering Method without Prequalification	up to 350 million
	National	Open Tendering Method	above 350 million
	National	Prequalification	above 350 million

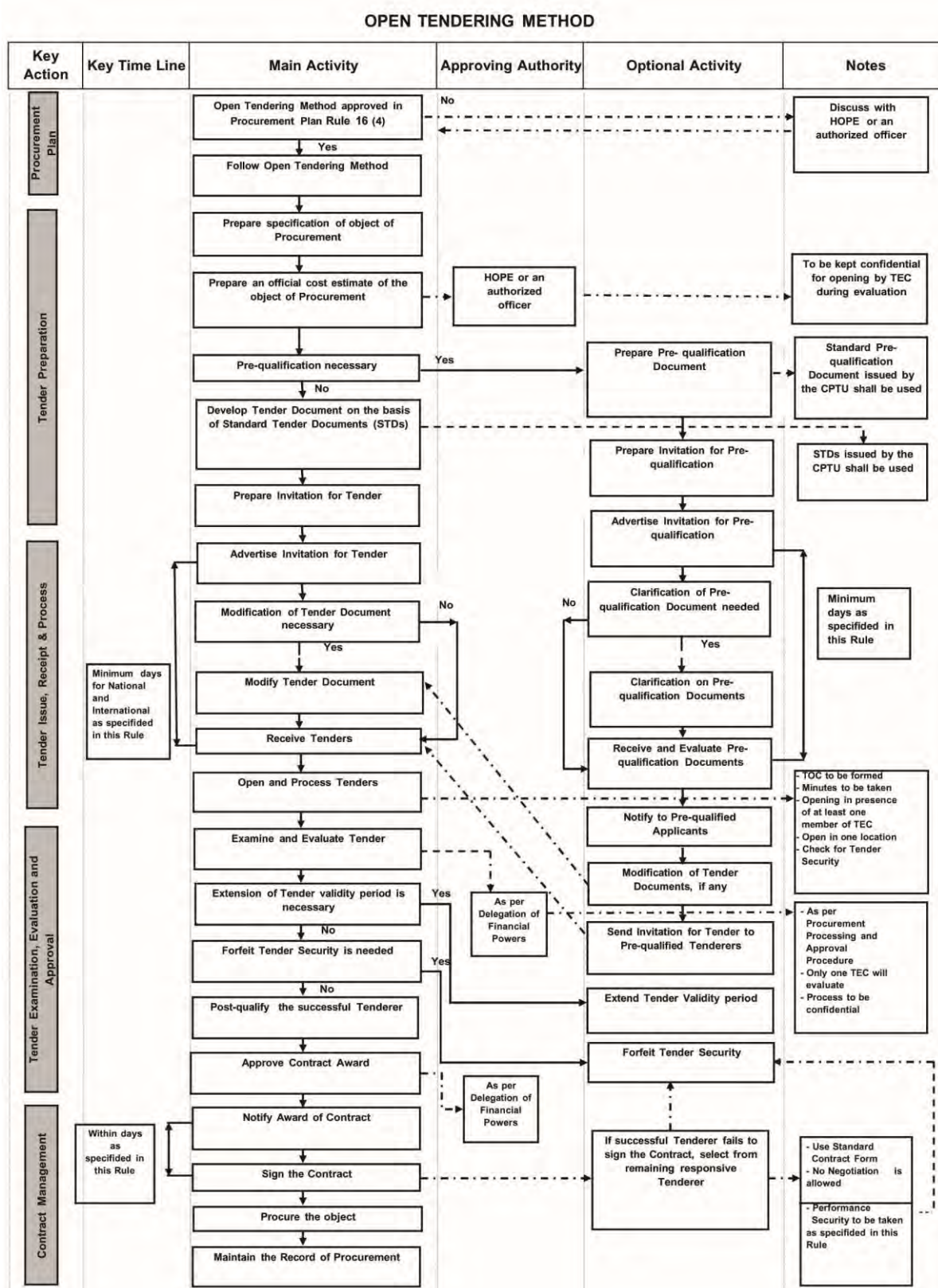
Source: PPTU (2008)

**Table A3-2 Time for preparation by type of tendering methods**

<b>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</b>
<ul style="list-style-type: none"> <li>• Not less than fourteen (14) days for Procurement up to BDT 3 million</li> <li>• Not less than twenty-one (21) days for contacts above BDT 3 million and up to BDT 50 (fifty) million,</li> <li>• Not less than twenty-eight (28) days for contacts above BDT 50 (fifty) million,</li> <li>• Not less than fourteen (14) days for emergency Procurement following a catastrophe,</li> <li>• Not less than fourteen (14) days for re-tendering</li> </ul>
<b>Time for preparation and submission of Tenders from the date of publication of advertisement in the newspaper under Limited Tendering Method</b>
<ul style="list-style-type: none"> <li>• Not less than fourteen (14) days</li> <li>• Time for re-Tendering can be reduced to seven (7) days</li> <li>• Seven (7) days for Procurement</li> <li>• Below seven (7) days in the case of national disasters with the approval of Head of Procuring Entity</li> </ul>
<b>Time for submission of Technical Proposal in the 1<sup>st</sup> stage of Two-stage Tendering</b>
<ul style="list-style-type: none"> <li>• Forty-two (42) days from the date of publication of advertisement in the newspaper</li> </ul>
<b>Time for submission of the Tender Evaluation Report of the 1<sup>st</sup> stage</b>
<ul style="list-style-type: none"> <li>• Seven (7) days</li> </ul>
<b>The Minimum Time for Preparation for the 2<sup>nd</sup> stage in Two-stage Tendering</b>
<ul style="list-style-type: none"> <li>• Twenty-one (21) days</li> </ul>
<b>Time for preparation and submission of Tenders for International Procurement of Goods and related Services, and Works and physical Services</b>
<ul style="list-style-type: none"> <li>• Not less than forty-two (42) days from the date of publication of advertisement in the newspaper in case of Open Tendering Method</li> <li>• Not less than twenty-eight (28) days from the date of publication of advertisement in the newspaper in case of re-Tendering</li> <li>• Not less than forty-two (42) days from the date of publication of advertisement in the newspaper in 1<sup>st</sup> stage and not less than twenty-one (21) days for preparation in 2<sup>nd</sup> stage in case of Two-Stage Tendering Method</li> </ul>

Source: PPTU (2008)

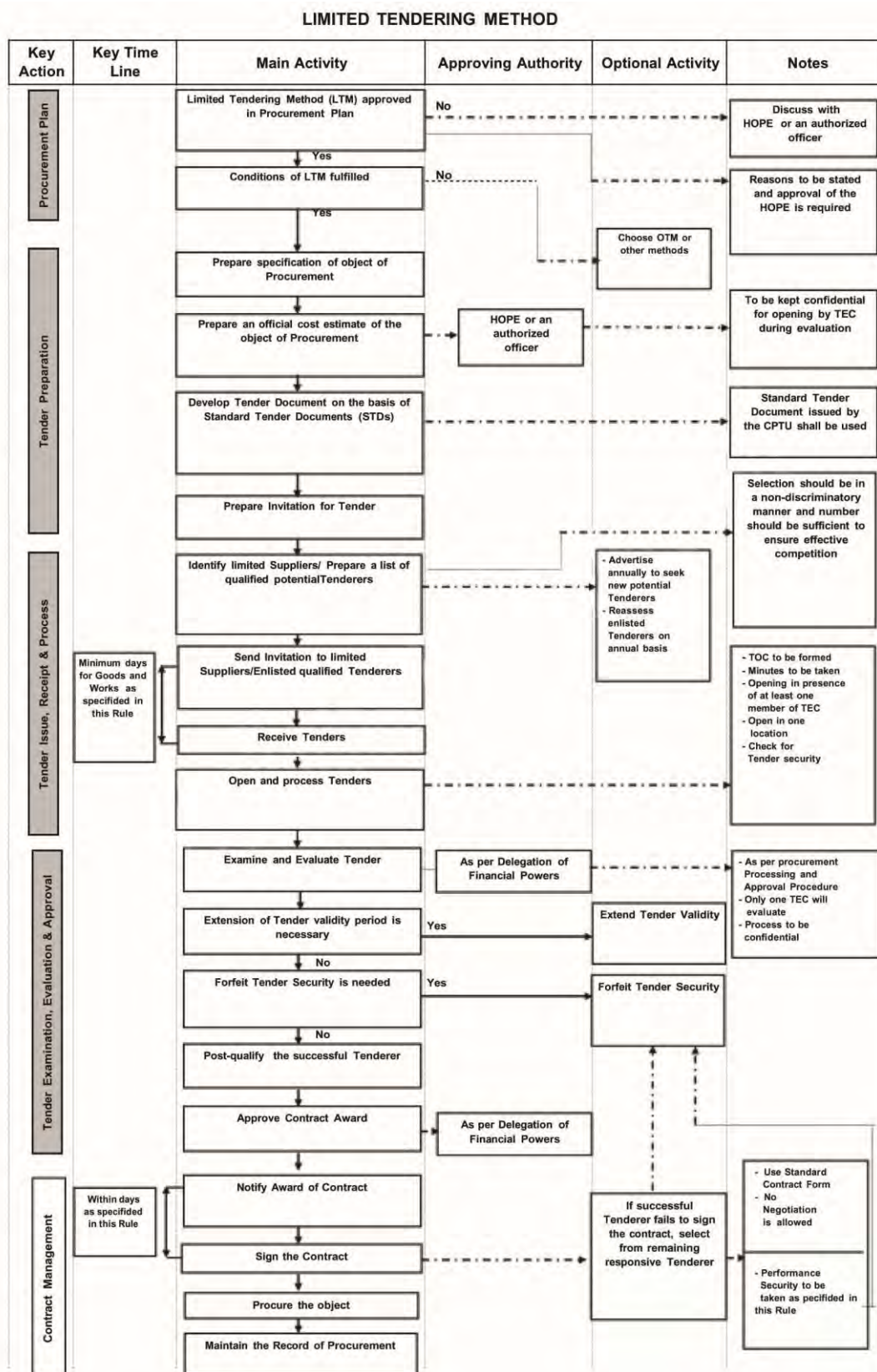
## Annexes of Final Report



Source: PPTU (2008)

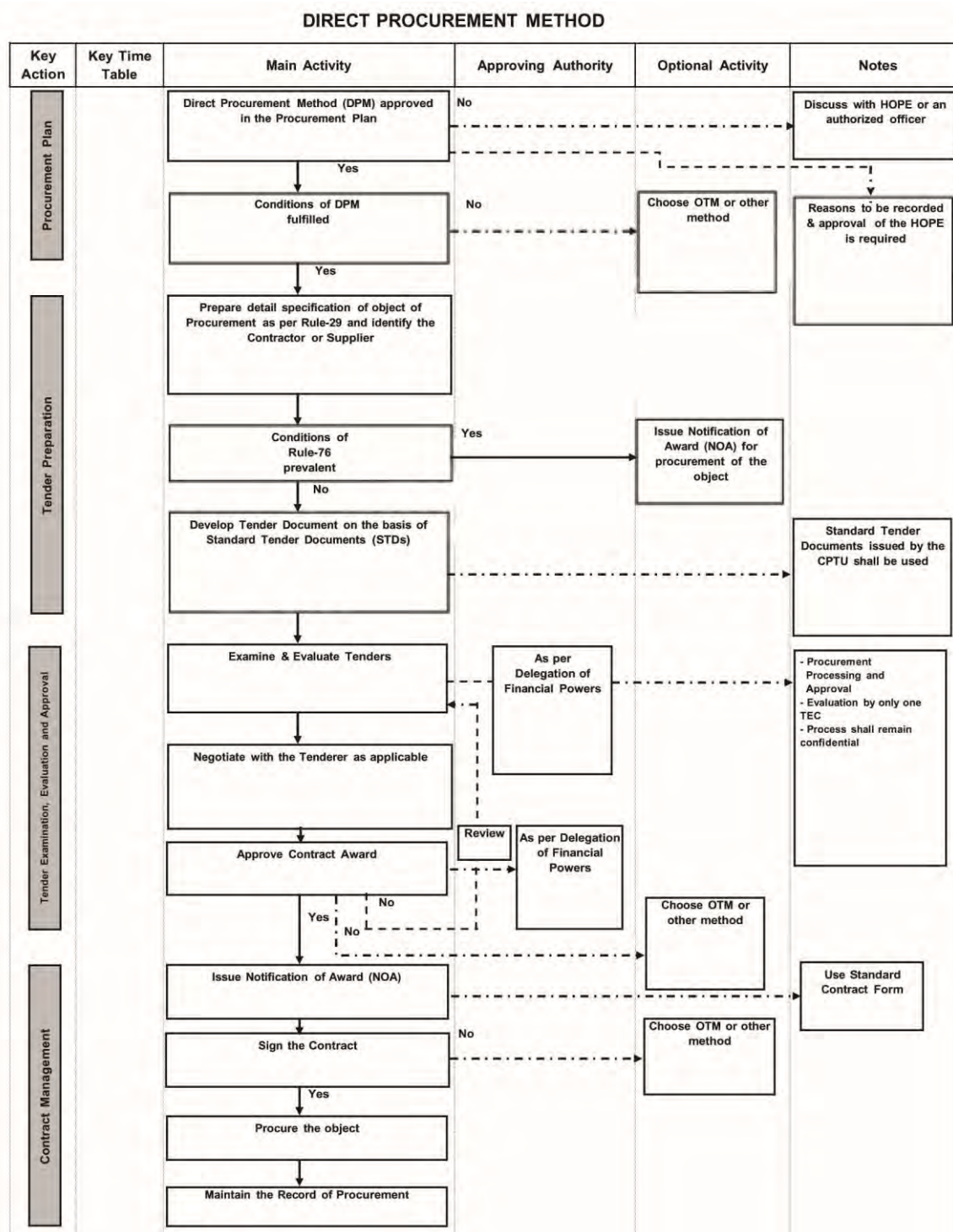
Figure A3-1 Flowchart of Open Tendering Method

## Annexes of Final Report



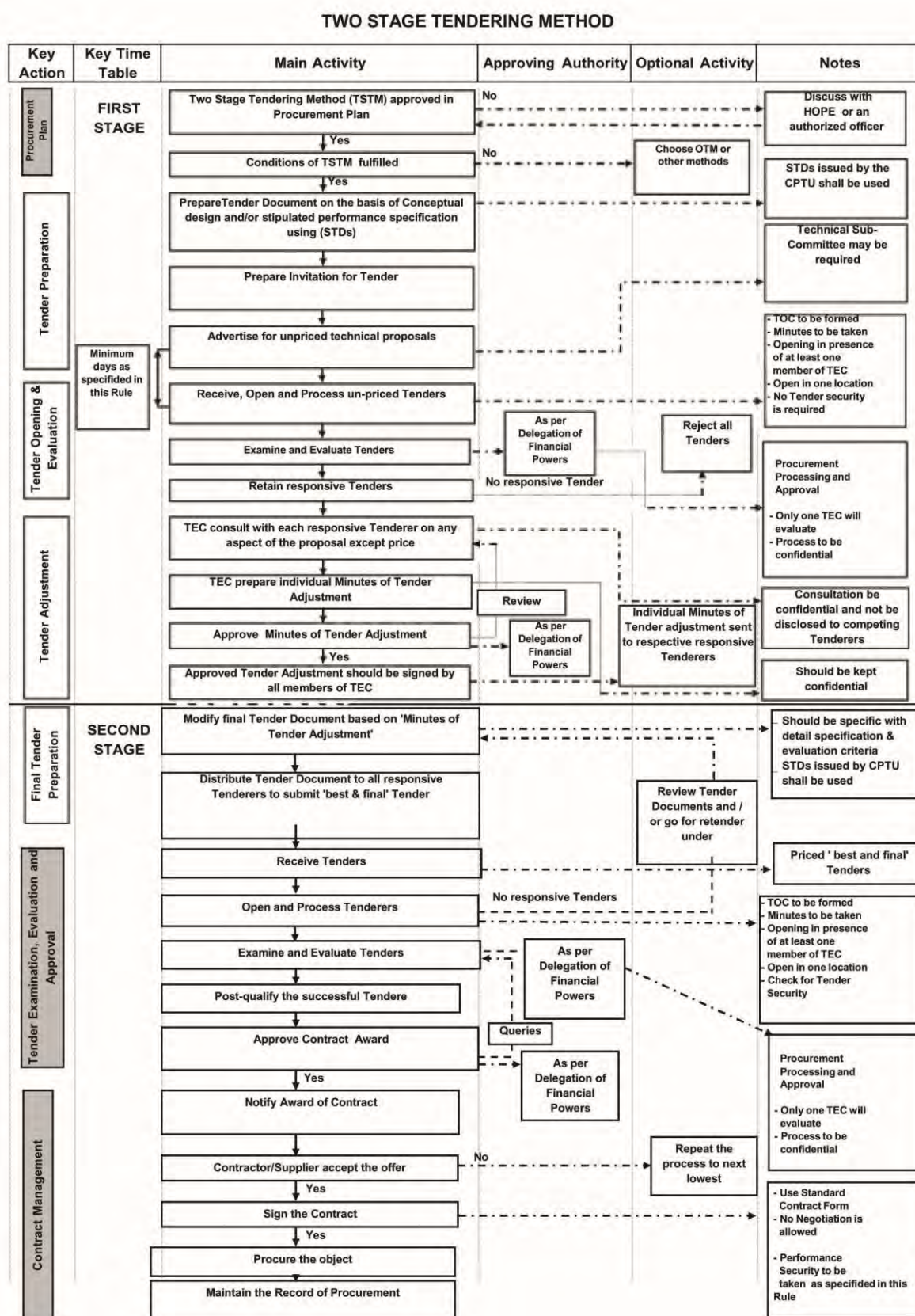
Source: PPTU (2008)

Figure A3-2 Flowchart of Limited Tendering Method



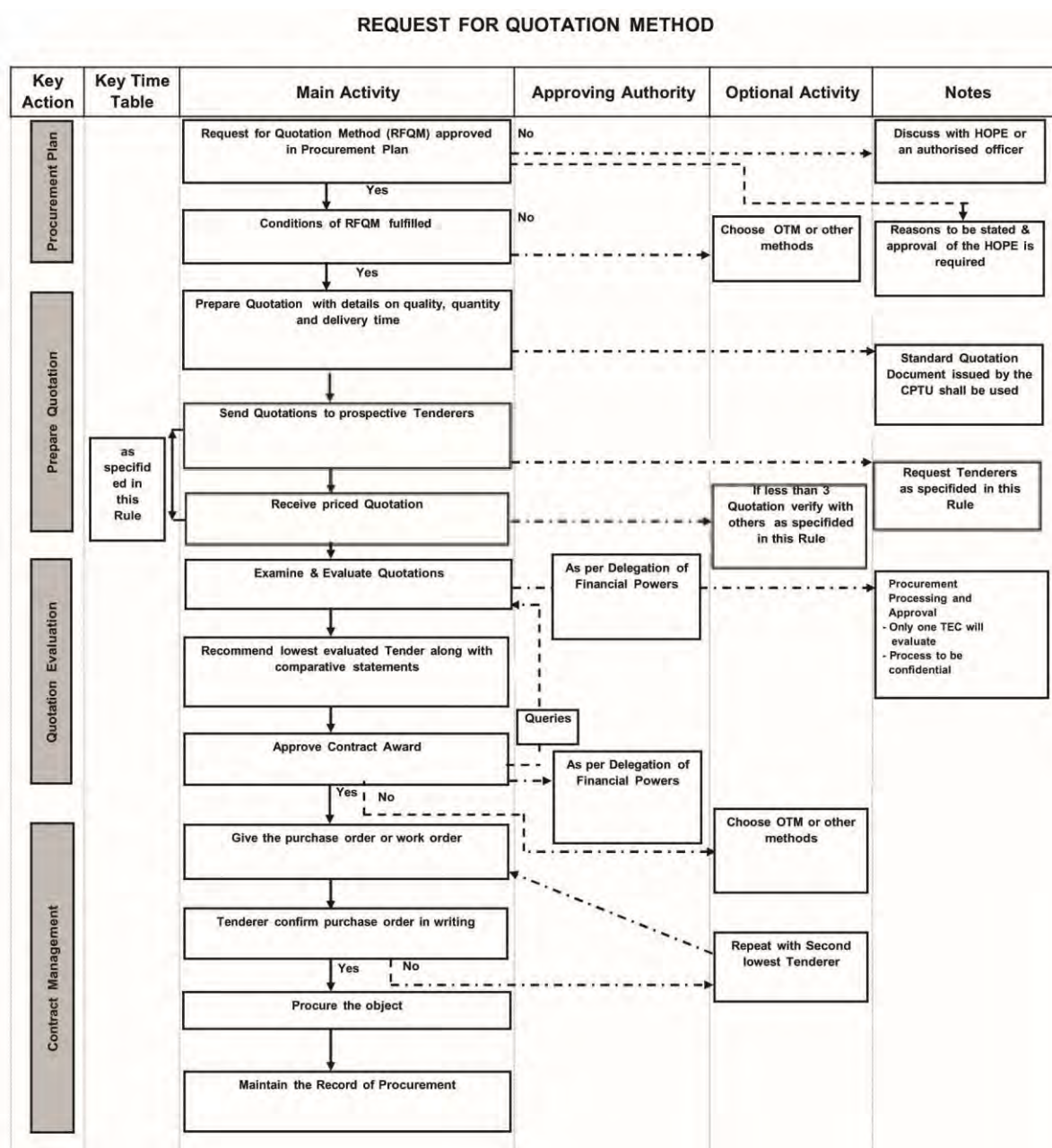
Source: PPTU (2008)

**Figure A3-3 Flowchart of Direct Procurement Method**



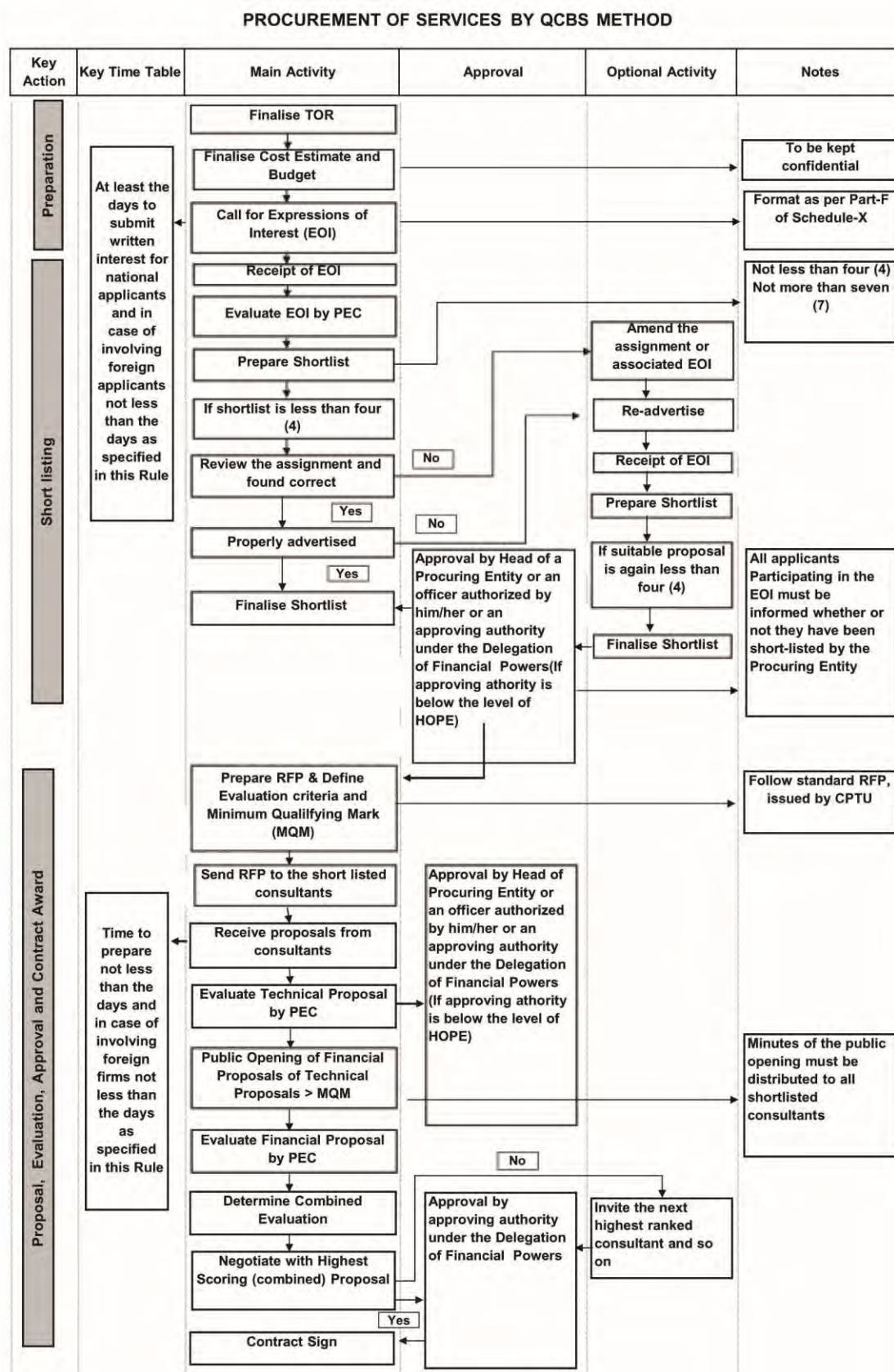
Source: PPTU (2008)

Figure A3-4 Flowchart of Two-Stage Tendering Method



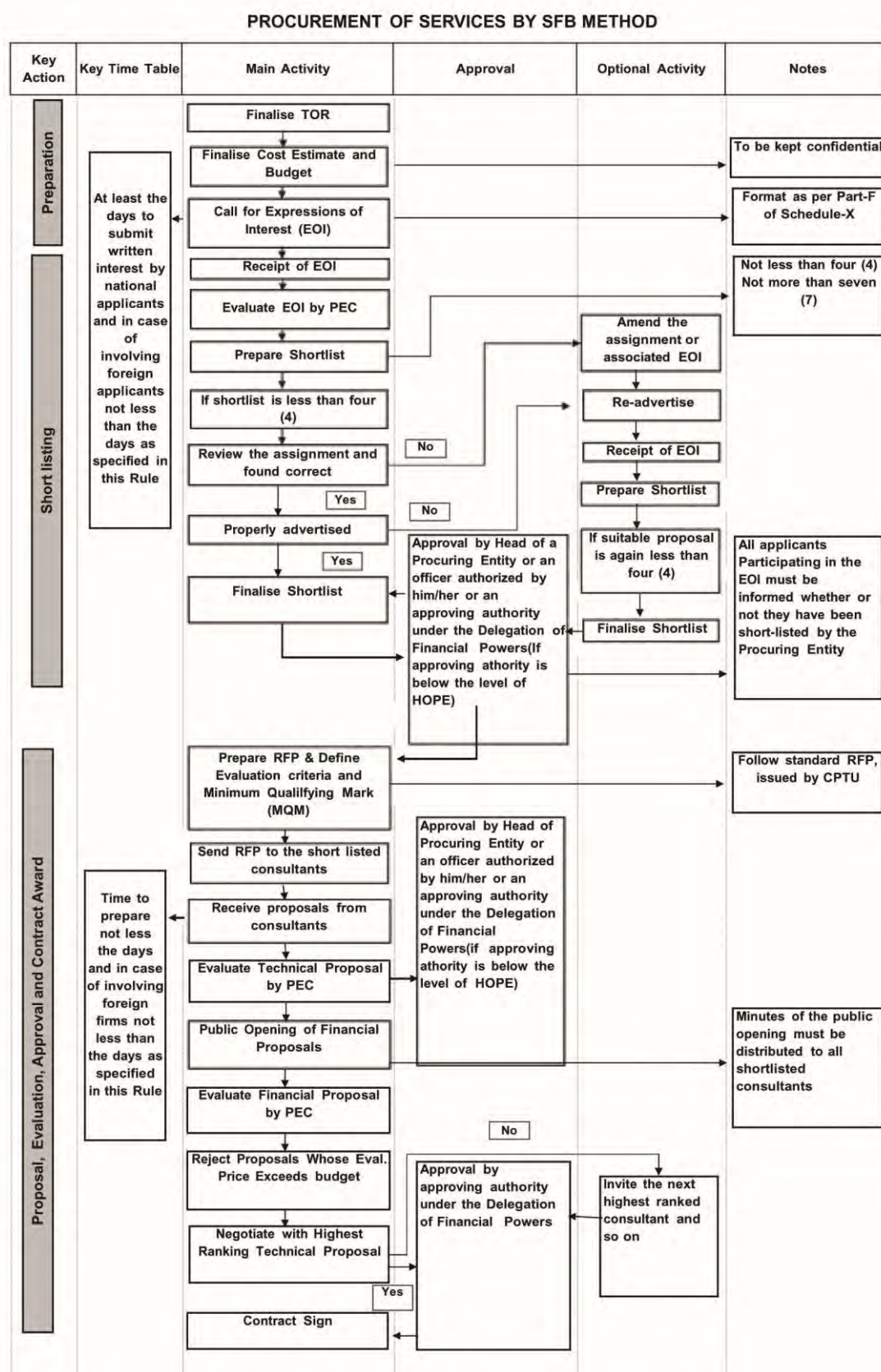
Source: PPTU (2008)

Figure A3-5 Flowchart of request for Quotation Method



Source: PPTU (2008)

Figure A3-6 Flowchart of procurement of services by Quality &amp; Cost Based Selection Method



Source: PPTU (2008)

**Figure A3-7 Flowchart of procurement of services by selection under a Fixed Budget Method**



## **Annex 4**

### **Leasing procedure of government-owned market**

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## 1 Procedure of leasing hat-bazaar

The Government issued the Guideline on Government Hat-Bazaar<sup>1</sup> 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 year 1414, 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, 1<sup>st</sup> to 12<sup>th</sup>). The leasing activity of a year shall be completed by 20<sup>th</sup> Chaitra, i.e., 20<sup>th</sup> 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 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.

<sup>1</sup> 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 chalan<sup>2</sup> 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:

<sup>2</sup> 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 5

### 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 A5-1.

##### *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 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 A5-1 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 A5-1.

### **(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.

**Table A5-1 Sampled Pourashavas and Unions and number of sampled households**

District	Pourashavas <sup>1</sup>	Unions near Pourashavas that are rapidly developing <sup>2</sup>	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) Durgapur (C)	Borkashiya Birampur (Mohonganj) Maganshiadar (Mohonganj)	Bakuljora Birishiri	Gaokandia Kakaigara
No. of households	120	48	24	24

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 A5-2 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 Pourashava is the shortest for those living the Unions adjacent to Pourashavas, as the sampling intended.

**Table A5-2 Characteristics of sample households**

Item	Type of statistics	Unit	Pourashava			Union		
			Old town	New town	Slum	Adjacent to Pourashava	Along improved road	Connected to improved GC
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

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

## (2) Employment

As shown in Table A5-3, 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.

**Table A5-3 Economic activities and employment status of household members aged 15 and above**

Economic activity/ employment status	Pourashava				Union			
	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
<b>Economic activity</b>								
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%
<b>Employment status</b>								
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%				

### (3) Income

The sample households were asked about their primary, secondary, and third income sources. Table A5-4 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.

**Table A5-4 Distribution of households by largest income source**

Income sources	Pourashava				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
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%

The sample households were asked about their income in the last 12 months. Table A5-5 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.

**Table A5-5 Amount and composition of annual income**

Income source	Pourashava				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%

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 A5-6).

Table A5-6 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.”

**Table A5-6 Distribution of households by reasons for increase and decrease of income**

Primary reasons for increase and decrease of income	Pourashava				Union			
	Old town	New town	Slum	Total	Adjacent to Pourashava	Along improved road	Connected to improved GC	Total
<b>Households whose total income has increased compared with in 2008</b>								
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%
<b>Households whose total income has decreased compared with in 2008</b>								
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%		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%

The sample households were asked about the amount of monthly expenditure by item. As shown in Table A5-7, 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%.

**Table A5-7 Amount and composition of monthly expenditure**

Items of expenditure	Pourashava				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 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%

## 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.

**Table A5-8 Change of and satisfaction with hygienic conditions in respondents' living areas**

Hygienic conditions	(Unit: %)			Union
	Pourashava		Slum	
	Old town	New 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%

**(2) Drinking water**

The survey asked the respondents whether it became easier or more difficult to access drinking water compared with 2008 (Table A5-9). 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 A5-9 Change in access to and problems with drinking water**

Question, answer	Pourashava N=120	Union 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 A5-10). 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.

**Table A5-10 Availability, satisfaction, required improvement, and necessity of public toilet**

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)
- Toilets should be leased out by tender. (1)
- Public toilets are necessary in slums. (1)
- A separated septic tank is necessary. (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 A5-11). 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.

**Table A5-11 Availability, satisfaction, required improvement, and necessity of public rubbish bins**

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%

*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 A5-12. 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.

**Table A5-12 Ways of and problems with rubbish disposal, and availability and necessity of household rubbish collection**

Questions, answer	Pourashava	Union
How do you dispose rubbish?	N=120	N=96
Scatter outside house	51%	31%
Bury	28%	69%
Burn	3%	
Throw into public bin	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.”	N=109	N=92
Does the collection service need to be provided?		
Yes (% of those who answered “yes”)	81%	35%
No (% of those who answered “no”)	19%	65%

*Problems with rubbish disposal*

- Bad smell from rubbish (59)
- Rubbish thrown in others' lands creates a problem in social relationships. (11)
- Dirty environment (5)
- Increased mosquitoes (4)
- Disease (3)
- 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. (2)
- Traffic jam (2)
- Not enough space to bury waste. (1)
- Air pollution (1)
- Blocked drains cause waterlogging. (1)
- Rubbish bins are 3 km away. (1)
- 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 A5-13 Satisfaction and improvement regarding sewerage and drainage**

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.

**Table A5-14 Change of traffic conditions**

Question, answer	Pourashava N=120	Union		
		Adjacent to Pourashava N=48	Along improved road N=24	Connected to improved GC 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%

**(2) Public transportation**

The respondents were asked how often they used public transportation (Table A5-15). 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.

**Table A5-15 Frequency of using public transportation**

Question, answer	Every day	A few times a week	A few times a month	A few times a year	Do not use
How often do you use the following public transportation? (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%

The answers to the question, “Are you satisfied with public transportation?” are summarized in Table A5-16. 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.

**Table A5-16 Satisfaction with public transportation**

Question, answer	Pourashava N=120	Union 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 dissatisfaction with public transportation*

- 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 road 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 A5-17 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 A5-18 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.

**Table A5-19 Access to public facilities**

Items	Primary school		Secondary school		Health clinic		Bank		Union complex		Upazila Complex	
	Pourashava	Union	Pourashava	Union	Pourashava	Union	Pourashava	Union	Pourashava	Union	Pourashava	Union
	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%

## 7 Access to market

Table A5-20 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.

**Table A5-20 Transportation mode and time to market for buying foods and goods**

Distance from market (km)	Mode of transportation						Time (minutes)
	Walk	Bicycle	Rickshaw	Rickshaw van	Auto rickshaw/ CNG	Motorbike	
0 km ≤ distance ≤ 0.5 km (N=102)							
Dry season	89%	2%	5%	3%		1%	8 min
Rainy season	88%	1%	6%	4%		1%	10 min
0.5 km < distance ≤ 1 km (N=54)							
Dry season	57%	7%	24%	9%		2%	16 min
Rainy season	57%	6%	28%	7%		2%	20 min
1 km < distance ≤ 2 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

According to Table A5-21, 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.

**Table A5-21 Frequency of visit to market for buying foods and goods**

Distance from market (km)	Everyday	A few times a week	A few times a month	Less than a few times a month
0 km ≤ distance ≤ 0.5 km (N=102)				
Dry season	75%	25%		
Rainy season	66%	34%		
0.5 km < distance ≤ 1 km (N=54)				
Dry season	61%	39%		
Rainy season	44%	54%	2%	
1 km < distance ≤ 2 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%	

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 A5-22) 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.

**Table A5-22 Change in frequency of visit to market**

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%

## 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 A5-23). 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.

**Table A5-23 Place to sell agricultural crops**

Question/ answer	Pourashava			Union		
	Old town	New town	Slum	Adjacent to Pourashava	Along improved road	Connected to improved GC
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%	

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 A5-24. 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.

**Table A5-24 Transportation mode to bring crops to Growth Center/ Rural Market and Pourashavas**

Place to sell crops	Transportation mode to bring crops					
	Walk	Bicycle	Rickshaw	Rickshaw van	Mini truck	Others
For those who sell crops at Growth Center/Rural Market (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 crops in Pourashava (N=39)						
Pourashava						
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	-

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 A5-25). 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 A5-25 Benefit from better access to place for selling crops**

Place to sell crops	Benefit				
	Low transportation cost	Short transportation time	Better selling price	More sales	More buyers/customers
For those selling crops at Growth Center/Rural Market who answered access to there has become better than in 2008 (N=28)					
Growth Center/Rural Market					
% of respondents who benefitted from better access	36%	68%	79%	79%	96%
For those selling crops in Pourashava who answered access to there has become better than in 2008 (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.<sup>1</sup> 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.

**Table A5-26 Impacts of road improvement**

Impacts	Union		
	Adjacent to Pourashava	Along improved roads	Connected to improved GC
Has the improvement of road caused the following? (% of those who answered “yes”)	N=23	N=22	N=6
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%

## (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%).

<sup>1</sup> 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.

**Table A5-27 Impacts of Growth Center improvement**

Impacts	Distance from improved GC		
	Within 2km	More than 2km	Total
Has the construction or improvement of GC caused the following? (% of those who answered “yes”)	N=13	N=11	N=24
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%

**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

## Protocol

***This questionnaire is developed for the JICA Preparatory Survey on the Northern Region Rural Development and Local Governance Improvement Project in Bangladesh. The Survey is coordinated by Local Government Engineering Department, financed by Japan International Cooperation Agency, and implemented by the JICA Survey Team. Information collected by this questionnaire is kept confidential and used only by the Survey Team. Individual identity never be exposed in any form. The Team thanks for your cooperation.***

Household's Living Standard Status

☐1= Upper class; 2= Upper Middle class;  
3= Lower Middle class; 4= Low class**1. Survey administration**

01.01 Is survey area in Pourashava or Union?

☐

1=Pourashava; 2=Union

01.02 Division code

☐

1=Mymensingh; 2=Rangpur

01.03 District code:

☐1=Dinajpur; 2=Lalmonirhat; 3=Nilphamari;  
4=Netrokona; 5=Tangail

01.04 Upazila Name

01.05 Pourashava Code (only Pourashava)

☐1=Birampur; 2=Parbotipur; 3=Hakimpur;  
4=Patgram; 5=Nilphamari; 6=Mohonganj;  
7=Durgapur; 8=Tangail; 9=Dhanbari;  
10=Kalihati

01.06 Union Name (only Union)

01.07 Ward Number

01.08 Area type code (only Pourashava)

☐

1 = Old town; 2 = New town; 3 = Slum

01.09 Slum Name (only Slum dweller)

01.10 Code of interviewer

☐1= Dr. Khurshed Alam  
2= Dr. M. Maniruzzaman  
3= Mr. Sazzad Mahmud  
4= Mr. Md. Enayet Karim  
5= Mr. Md. Musfiqur Rahman  
6= Mr. Md. Badruzzaman

01.11 Date of visit (dd/mm/yy)

 /  /2012

01.12 Visit start time (hh:mm)

 ; 

01.13 Visit end time (hh:mm)

 ; 

01.14 Name of data entry operator

01.15 Name of checker

**2. Basic information**

- 02.01 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 Number of Household members including household head 0 to 5  persons
- 02.12 6 to 14  persons
- 02.13 15 to 59  persons
- 02.14 60+  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. Asset and Owned facilities**

*[Note for surveyors] Before asking 03.02, observe and note the following:*

- 03.01 House structure  1= Hut; 2=Katcha; 3=Cl Sheet; 4=Semi-puca; 5=Puca; 6=Other(specify \_\_\_\_\_)
- I would like to ask questions about house and household amenities.***
- 03.02 Tenancy of your dwelling  1= Owner; 2= Tenant; 3= Authorized dweller without paying; 4= Unauthorized dweller
- 03.03 How many rooms do your household members occupy, including bedrooms, living rooms, and rooms used for household enterprises?  rooms  
(Note: Do not count bathrooms, kitchens, balconies, and corridors.)
- 03.04 Source of drinking water In dry season  1=Tap; 2=Tubewell; 3=Deep tubewell; 4=Pond/Tank; 5=River; 6=Others (specify \_\_\_\_\_)
- 03.05 In rainy season
- 03.06 Does your household treat or purify your drinking water in any way?  1=Yes; 2=No

**[Attachment to Annex 5]**

03.07 Is it easier or more difficult to get drinking water compared with in 2008? ☐ 1=Easier; 2=Same; 3=More difficult;

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

How many of vehicles of the following types does your household possess?

03.12.01	Bicycle	<input type="checkbox"/>
03.12.02	Motorbike	<input type="checkbox"/>
03.12.03	Car	<input type="checkbox"/>
03.12.04	Rickshaw	<input type="checkbox"/>
03.12.05	Other (specify _____)	<input type="checkbox"/>
03.12.06	Other (specify _____)	<input type="checkbox"/>

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? ☐ decimal

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? ☐ decimal

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 in total? ☐ decimal

03.21 What is the total size of agricultural land under operation? ☐ decimal

<p>[Conversion rate] 100decimal = 1acre; 1decimal = 0.01acre 1acre = 0.405hectare; 2.47acre = 1hectare</p>
--

#### 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 living area since 2008?

Are the current conditions satisfactory or not satisfactory?

		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 [Code for change]: 1=Increase; 2=Same; 3=Decrease	04.03.01	04.03.02
04.04	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

Do the public toilets require the following improvements?

04.08.01	Number of toilets should be increased.	<input type="checkbox"/>	1= Yes
04.08.02	The toilets should be cleaned.	<input type="checkbox"/>	2= No
04.08.03	The toilets should be repaired.	<input type="checkbox"/>	

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,) Do public toilets need to be constructed? ☐ 1= Yes; 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

Do the public rubbish bins require the following improvements?

04.13.01	Number of bins should be increased.	<input type="checkbox"/>	1= Yes
04.13.02	Rubbish in bins should be collected and cleaned.	<input type="checkbox"/>	2= No
04.13.03	The bins should be repaired.	<input type="checkbox"/>	

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 area,) Do public rubbish bins need to be installed? ☐ 1= Yes; 2= No

**[Attachment to Annex 5]**

- 04.16 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\_\_\_\_\_)
- 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 area? ☐ 1= Yes (go to 04.21);  
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
- Does the sewerage or drainage require the following improvements?
- |          |   |                          |        |
|----------|---|--------------------------|--------|
| 04.23.01 | It should be cleaned.                           | <input type="checkbox"/> | 1= Yes |
| 04.23.02 | It should be made wider or deeper.              | <input type="checkbox"/> | 2= No  |
| 04.23.03 | New sewerage or drainage should be constructed. | <input type="checkbox"/> |        |
- 04.24 Please give other suggestions for improvement of sewerage or drainage, if any.

## 5. Income

What are the major income sources of your household? Select three choices at maximum.

05.01.01	1=Farming in farm owned/rented by household members ;	1st	<input type="text"/>
05.01.02	2=Fishery on household members' account ;	2nd	<input type="text"/>
05.01.03	3=Livestock on household members' account ;	3rd	<input type="text"/>
	4=Non-farm self-employed activities & business;		
	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	1st	<input type="text"/>	See 05.01 for Code
05.02.02	2nd	<input type="text"/>	
05.02.03	3rd	<input type="text"/>	

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	<input type="text"/>	1= Increase (go to 05.16); 2= Same (go to 06.01) 3= Decrease (go to 05.17)
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**[Attachment to Annex 5]**

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	<input type="text"/>
05.16.02	2=Price of crops/ fish/ meat increased;	2nd	<input type="text"/>
05.16.03	3=Business environments got better;	3rd	<input type="text"/>
	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;	1st	<input type="text"/>
05.17.02	2=Price of crops/ fish/ meat fell down;	2nd	<input type="text"/>
05.17.03	3=Business environments got worse;	3rd	<input type="text"/>
	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 _____)		

## 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 3=Decrease
06.01	Rice	06.01.01 BDT	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	Tax	06.13.01 BDT	06.13.02
06.14	Total	06.14.01 BDT	06.14.02

## 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 activity	Economic activity engaged in the most in 2008	Employment status in his/her major economic activity in 2008
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 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 \_\_\_\_\_)

### [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 \_\_\_\_\_)

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

☐ 1= Better;  
☐ 2= Same (go to 08.01);  
☐ 3= Worse (go to 07.15);

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

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

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## 8. Agriculture

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

☐ 1=Yes;  
2=No (Go to 09.01)

What crops do you produce?

08.02.01	1= Rice (Aus)		1 = Yes
08.02.02	2= Rice (Aman)		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 (_____)		

What are major crops? Select three choices at maximum.

08.03.01	1st	<input type="checkbox"/>	See 08.02 for Code
08.03.02	2nd	<input type="checkbox"/>	
08.03.03	3rd	<input type="checkbox"/>	

Where do you sell your crops currently? Where did you sell crops in 2008?

		Now	in 2008	
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	
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	<del>08.04.06.01</del>	08.04.06.02	

**[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 5]****[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.)**

- 08.06 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\_\_\_\_\_)
- 08.07 How far is the Growth Center/ Rural Market from your farm?  km
- 08.08 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?
- |          |                           |                      |         |
|----------|---------------------------|----------------------|---------|
| 08.09.01 | Low transportation cost   | <input type="text"/> | 1 = Yes |
| 08.09.02 | Short transportation time | <input type="text"/> | 2 = No  |
| 08.09.03 | Better selling price      | <input type="text"/> |         |
| 08.09.04 | More sales                | <input type="text"/> |         |
| 08.09.05 | More buyers/customers     | <input type="text"/> |         |
- 08.10 Apart from the above, has the better access to Growth Center/ Rural Market brought any other benefit to you?
- 08.11 Is there any problem regarding a road to Growth Center/ Rural Market?  1= Yes;  
 2= No (go to 08.13)
- 08.12 If there is a problem, please specify the problem.

**[Question to only person currently selling crops in Pourashava]****(If the household does not sell crops in Pourashava, go to 08.20.)**

- 08.13 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\_\_\_\_\_)
- 08.14 How far is the Pourashava from your farm?  km
- 08.15 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?
- |          |                           |                      |         |
|----------|---------------------------|----------------------|---------|
| 08.16.01 | Low transportation cost   | <input type="text"/> | 1 = Yes |
| 08.16.02 | Short transportation time | <input type="text"/> | 2 = No  |
| 08.16.03 | Better selling price      | <input type="text"/> |         |
| 08.16.04 | More sales                | <input type="text"/> |         |
| 08.16.05 | More buyers/customers     | <input type="text"/> |         |
- 08.17 Apart from the above, has the better access to Pourashava brought any other benefit to you?

**[Attachment to Annex 5]**

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.

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**[Question to All 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		
08.20.07	Number of middlemen and customers from Pourashava		

**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 transportation	Time (hh.mm)	Mode of transportation	Time (hh.mm)
09.01	09.01.01	09.01.02	09.01.03	09.01.04	09.01.05

Code: 1=Walking; 2=Bicycle; 3=Van; 4= Mini truck; 5=Rickshaw; 6=Bus; 7=Animal, 8=Other(specify )

Note: Write "999" in case that a market is not accessible.

How often do your household members go to the market?

09.02 Dry season ☐ 1= Everyday

09.03 Rainy season ☐ 2= A few times a week

3= A few times a month

4= Less than a few times a month

09.04 Has the frequency of going to market increased or decreased compared with in 2008? ☐ 1= Increased

2= Same

3= Decreased

09.05 Is access to the market better or worse than in 2008? ☐ 1= Better

2= Same

3= Worse

09.06 Does your household face any problem regarding access to the market? ☐ 1= Yes

2= No (go to 10.01)

09.07 If yes, specify the problem.

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## 10. Traffic

**We would like to ask questions about traffic in your living area.**

[Note: Living area means area within 2-3 km away from your house.]

Have the following increased in your living area compared 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?

- |       |                           |  |                        |
|-------|---------------------------|--|------------------------|
| 10.03 | Rickshaw                  |  | 1= Every day           |
| 10.04 | Auto rickshaw/ CNG /Tempo |  | 2= A few times a week  |
| 10.05 | Taxi                      |  | 3= A few times a month |
| 10.06 | Rickshaw Van              |  | 4= A few times a year  |
| 10.07 | Local bus                 |  | 5= Do not use          |
| 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? ☐ 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 street lights? ☐ 1= Yes (go to 11.01); 2= No

- 10.16 If not satisfied, please tell me reasons.

**11. Impact 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 | Better access to market                          |  | 1= 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. Impact of Growth Center (only Union)**

- 12.01 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

How often do your household members go to the Growth Center?

- 12.03 ☐ 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?

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?

☐ 1= Yes (go to 13.01); 2= No

12.14 If not satisfactory, please specify reasons.

### 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 (km)	Mode of Transportation	Transportation time (hh:mm)	
				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 truck; 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 parents' generation;  
2= In or before grandparents' 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 establishment 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 5]

14.07.01	What were reasons for the in-migration?	1st	<input type="text"/>
14.07.02	1=Buy land	2nd	<input type="text"/>
14.07.03	2=Look for job	3rd	<input type="text"/>
	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		
	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.	<input type="text"/>	1=Yes
14.08.02	2. Conditions for business were good.	<input type="text"/>	2=No
14.08.03	3. Market to sell crops and buy goods was good.	<input type="text"/>	
14.08.04	4. Land/ housing price or rent was cheap.	<input type="text"/>	
14.08.05	5. Relatives/Acquaintances were here.	<input type="text"/>	
14.08.06	6. Good infrastructure/public service was available.	<input type="text"/>	
14.08.07	7. Primary/ secondary school was good.	<input type="text"/>	
14.08.08	8. College/ university was good.	<input type="text"/>	
14.08.09	9. Good health facilities were available.	<input type="text"/>	
14.08.10	10. Traffic accessibility was good.	<input type="text"/>	
14.08.11	11. Water supply was available.	<input type="text"/>	
14.08.12	12. Electricity supply was available.	<input type="text"/>	
14.08.13	13. Environment was hygienic.	<input type="text"/>	
14.08.14	14. Public security is good.	<input type="text"/>	
14.08.15	15. No other choice. No where else to go.	<input type="text"/>	
14.08.16	16. Other (specify _____)	<input type="text"/>	

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

14.09.01	1st	<input type="text"/>	Select from 1 to 16.
14.09.02	2nd	<input type="text"/>	
14.09.03	3rd	<input type="text"/>	

14.10	Do you want or plan to move the living place of your household from the current place?	<input type="checkbox"/>	Yes = 1; No = 2 (go to 14.14)
-------	--	--------------------------	----------------------------------

14.11	Why do you want or plan to move your household?	<input type="text"/>
	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 _____)	

- 14.12 Where do you want to move your household? ☐  
 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
- 14.13 Is the place that you want or plan to move urban or rural area? ☐ 1= Urban; 2= Rural

**We would like to ask questions about migration of household members**

- 14.14 Is there any household member who stayed outside for consecutive **six or more** months since 2007 after your household settled in the current place? ☐ 1= Yes  
 2= No (go to 14.17)
- 14.15 How many household members stayed outside?  persons

Please tell me the members who stayed outside.

[Note: If outside stay of the same person for consecutive 3 months or more occurred more than once, please write down about the latest stay.]

down about the latest stay.]

		Where were places of the outside stay?	Were the places urban or rural area?	What were main reasons 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

[Attachment to Annex 5]

**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)

14.18 How many those former household members are there outside?  persons

Please tell about those former household members.

House 14: about three former household members.					
		Where are they currently living?  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	Are they living in urban or rural area?  1= Urban, 2= Rural	What were main reasons that they left the current place?  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 ( )	Do they have any financial relation with your household?  1: money to him/her 2: money from him/her 3: No relation
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	Member 5	14.19.05.01	14.19.05.02	14.19.05.03	14.19.05.04
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

**15. Community**

Have the following changed since 2008?

15.01	Relationship to relatives		1= Increased
15.02	Relationship to neighbors		2= Same
15.03	Number of neighbors that you do not know		3= Decreased

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 organizations, activities, and meeting become active or inactive?

☐ 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 2008?

☐ 1=Yes; 2= No

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

**[End]**

