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

Improvement Urban Governance and Infrastructure Program (IUGIP)

Environmental Screening Report for Five LINICs up-gradation at Tungipara Pourashava

Sub-Project No: IUGIP/TUNG/SI/01-05/2023 (Lot-01 to 05)

May 2024

Prepared by: MDS Consultants

Development Design Consultants Limited (DDC)
Resource Planning and Management Consultants (Pvt) Ltd. (RPMC)
Design Planning & Management Consultants Limited (DPM)

CURRENCY EQUIVALENTS
(As of 13th December, 2022)
Currency Unit = BDT
BDT 1.00 = $ 0.0097
$ 1.00 = BDT 105.4

ABBREVIATIONS

ADB	-	Asian Development Bank
AFD	-	Agence Francaise de Developpment
Ap	-	Affective Person
DoE	-	Department of environment
DLI	-	Disbursement Link Indicator
ESMF	-	Environmental and Social Management Framework
ECA	-	Environmental Conservation Act
ECC	-	Environmental Clearance Certificate
ECR	-	Environmental Conservation Rules
EIA	-	Environmental Impact Assessment
EMP	-	Environmental Management Plan
ESR	-	Environmental Screening Report
FD	-	Forest Department
GoB	-	Government of Bangladesh
GRC	-	Grievance Redressal Cell
GRM	-	Grievance Redress Mechanism
IEE	-	Initial Environmental Examination
IUGIP	-	Improving Urban Governance and Infrastructure Program
LGED	-	Local Government Engineering Department
MDSC	-	Management Design and Supervision Consultant
MLGRDC	-	Ministry of Local Government, Rural Development, Cooperatives
O&M	-	Operation and Maintenance
PMU	-	Project Management Unit
PPTA	-	Project Preparatory Technical Assistance
PRSP	-	Poverty Reduction Strategy Paper
RBL	-	Result-Based Lending
RP	-	Resettlement Plan
SPS	-	Safeguard Policy Statement
ToR	-	Terms of Reference
UGIAP	-	Urban Governance Implementation Action Plan

GLOSSARY OF BANGLADESHI TERMS

Crore	-	10 million (= 100 lakh)
Ghat	-	boat landing station
Hartal	-	nationwide strike/demonstration called by opposition parties
Khal	-	drainage ditch/canal
Khas, khash	-	belongs to government (e.g., land)
Katcha	-	poor quality, poorly built
Lakh, lac	-	100,000
Madrasha	-	Islamic college
Mouza	-	government-recognized land area
Parishad	-	authority (Pourashava)
Pourashava	-	municipality
Pucca	-	good quality, well built, solid
Thana	-	police station
Upazila	-	sub district

WEIGHTS AND MEASURES

ha	-	hectare
km	-	kilometre
m	-	meter
mm	-	millimetre

NOTE{S}

(i) In this report, "$" refers to US dollars.

(ii) —BDT refers to Bangladeshi Taka

PREFACE

The premises of this Environmental Screening Report (ESR) are the MDS Consultant services presentation of an analysis of data and conclusions, together with its appendices.

The key elements of the ESR focus on: Assessment of Compliance Guidelines of Environment Safeguards according to ADB, AFD and GoB policy.

DISCLAIMER

This draft Environmental Screening Report (ESR) of Tugipara Pourashava, Under Project Readiness Services for Improving Urban Governance and Infrastructure Program (IUGIP) at (RBL). All the data used to prepare this ESR have been collected from the Pourashava Development Plan (PDP) and field visit. Some of the information's have also been collected from the Pourashava personnel over telephone. Moreover, some information's have been collected by the respective experts of MDS consultant through intensive field visit which have been used in writing this report. If any information or data or any other things coincide with other project documents that are beyond our knowledge and fully coincidental event and we express apology for that.

Submitted by:

Local Government Engineering Department

Prepared by:

Md. Habibur Rahman

Jr. Environmental Specialist

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EXECUTIVE SUMMARY

1. The Government of Bangladesh (GoB) has undertaken the Improving Urban Governance and Infrastructure Program (IUGIP) with financial assistance from the Asian Development Bank (ADB) & Agence Francaise De-developpment (AFD). The Improving Urban Governance and Infrastructure Program (IUGIP) under the Result Based Lending (RBL) modality will cover 88 Pourashavas.
2. The implementation of the IUGIP, RBL program which will involve construction of infrastructure facilities such as drains, roads, water supply infrastructure (water hand pumps and /or bore wells), Low Income Neighborhoods Community upgradation, toilet blocks, footpath, tree plantation, improvement in market areas and the potential construction work will cause environmental and involuntary resettlement impacts.
3. Environmental and Social Management Framework (ESMF) was prepared and endorsed by both the funding agencies and GoB to be adopted for implementation of the IUGIP. The frameworks specified the screening procedures and the guidelines for identifying the APs, estimating the compensation and assistance to be paid for the losses, grievance redress mechanism, preparation of IEE and the institutional requirements for monitoring the implementation of environmental safeguard aspects of the project. The IEE for LINICs upgradation sub-project of Tungipara Pourashava has been prepared following the PPTA and updated format.
4. Government of Bangladesh (GoB) law and ADB policy require that the environmental impacts of development projects be identified and assessed as part of the planning and design process, and that action be taken to reduce those impacts to acceptable levels. This is done through the screening/impact assessment process, which has become an integral part of all ADB lending operations, project development and implementation.
5. The ADB has categorized IUGIP projects as Category B and following its normal procedure has determined that an IEE will be conducted for each Pourashava sub-project submission. The impacts of sub-projects will be assessed according to ADB Environment Policy (2002, 2009) and Environmental Assessment Guidelines (2003).
6. Category as per revised ECR, 2023 section-1 of the 2023 ECR provides a classification of projects into four categories, depending on environmental impact and location. These categories are; Green, Yellow, Orange and Red. Based on projects listed in section-1 to the ECR Rules, 2023, Low Income Neighborhood Community up-gradation activities proposed in RBL fall under the ambit of this legislation requiring of ECC and IEE do not require and red category projects are not eligible for implementation under RBL Table 4.
7. For the RBL program, eligible sub-projects will mostly be classified as Category B per ESMF, and not applicable based on ECR, 2023 Section-1. Sub-projects classified as Category C (ADB SPS) will not require an environmental assessment, but environmental implications will be reviewed, and an environmental due diligence report will be prepared.
8. The DoE has issued a letter for Improving Urban Governance and Infrastructure Program (IUGIP), vide letter 22.02.0000.018.72.029.23.177 dated 25.06.2023. (DoE approved of Letter Appendix -9).
9. The LINICs people have been suffering from acute problem of inadequate availability of drinking water, inadequate & deteriorating internal roads/toilets/footpaths/walkways, street lighting, and paucity of drainage and sewerage facilities, poor housing, and pollution. Thus, urban LINICs up-gradation at the 63 of Pourashavas infrastructure provision through IUGIP main stream in selected Pourashavas as need basis. The responsibility of up-gradation the living conditions of the people of the LINICs areas lies with the Pourashavas vis-a-vis urban service providers.
10. Basic services for the poor LINICs include up-gradation of (i) internal roads, (ii) drainage facilities, (iii) footpaths/ walkways, (iv) installation of hand tube wells, (v) sanitation facilities

(construction of toilets/ community toilets), (vi) solid waste management and (vii) street lighting in and (viii) construction of dust bins, etc.

11. .Beneficiaries; the LINICs area up-gradation will help in providing health benefits, the construction activities increasing additional employment opportunities. Many people will also be employed for operation and maintenance activities. Significant benefits of the sub-projects will be:

    - Health benefits;
    - Clean and pollution free environment
    - Wide participation of community people including women.
    - Health improvement protecting spreading of diseases and epidemic consequence;
    - Employment generation
    - Income generation through toilet leasing

12. There is no impact on indigenous people as there are no indigenous people around the sub-project site.

1. INTRODUCTION

1.1 Background

1. Bangladesh has a population of approximately 162 million and experienced rapid urbanization with the growth of many secondary towns over the last three decades. About 28 per cent of the total population now lives in urban areas where the population growth rate is much higher than the overall national growth rate. With the present high increase-trend in urban population, it is justifiably anticipated that by year-2020, such population will constitute nearly 40 percent of the national aggregate. One principal cause of such rapid growth is the presence of better opportunities spanning economic, communication, education, health and other social aspects in the urban areas.

2. Proposed Project Readiness Services of Result Based Lending (RBL) for Improving Urban Governance and Infrastructure Program (IUGIP) with financial assistance from the ADB & AFD are for Urban Development in 63 main steam Pourashavas. The selected Pourashavas are: 1) Bandarban 2) Brahmanbaria 3) Banshkhali 4) Chandanaish 5) Nazirhat 6) Raozan 7**)** Sandwip 8) Faridganj 9) Hajiganj 10) Matlab South 11) Daganbhuiyan 12) Sonagazi 13) Khagrachhari 14) Raipur 15) Ramganj 16) Ramgoti 17) Chowmuhani 18) Basurhat 19) Rangamati 20) Bhanga 21) Boalmari 22) Kaliganj 23) Kaliakair **24) Tungipara** 25) Bhairab 26) Hossainpur 27) Pakundia 28) Kalkini 29) Manikganj 30) Munshiganj 31) Mirkadim 32) Araihazar 33) Monohordy 34) Goalanda 35) Naria 36) Modhupur 37) Alamdanga 38) Keshabpur 39) Monirampur 40) Mohespur 41) Bheramara 42) Kumarkhali 43) Gangni 44) Gafargaon 45) Madan 46) Nokla 47) Shariakandi 48) Rohanpur 49) Shibganj 50) Nazipur 51) Santhia 52) Bagha 53) Bhabaniganj 54) Charghat 55) Keshorhat 56) Naohata 57) Sundarganj 58) Ulipur 59) Patgram 60) Chunarughat 61) Kulaura 62) Moulvibazar and 63) Chhatak .

3. 25 Pourashavas Operation and Maintenance (O & M) are selected Pourashavas as- 1) Barguna 2) Pirojpur, 3) Nabinagar, 4) Laksam 5) Laxmipur, 6) Gopalganj,7) Kishoreganj, 8) Rajbari, 9) Chuadanga 10) Benapole 11) Jashore, 12) Magura, 13) Meherpur, 14) Muktagacha 15) Netrakona, 16) Sherpur, 17) Chapai Nawabganj, 18) Joypurhat 19) Naogaon, 20) Bera 21) Ishwardi, 22) Shahjadpur, 23) Lalmonirhat, 24) Nilphamari 25) Panchagarh.

1.2 Purpose of the environmental screening report

4. IUGIP, RBL Program Scope; The RBL Program will support the construction of infrastructure facilities basic services for the poor LINICs include up-gradation of (i) internal roads, (ii) drainage facilities, (iii) footpaths/ walkways, (iv) installation of hand tube wells, (v) sanitation facilities (construction of toilets/ community toilets), (vi) solid waste management and (vii) street lighting in and (viii) construction of dust bins, etc. The purpose of the report is to improve the urban environment through identify the potential impacts of proposed interventions and taking mitigation measures.

1.3 Proposed LINICs up-gradation

5. Environmental screening reports on the five proposed LINICs up-gradation in Tungipara have been presented in this report. Panchkahonia Molla Para Linics, ward no-01, Fakir para Linics, ward no-03, Nearby Bhagia River Linic, ward no-04, Moddho para Tungipara Linic, ward no-05, and Mollah Bari Sardarpara Linic, ward no-06

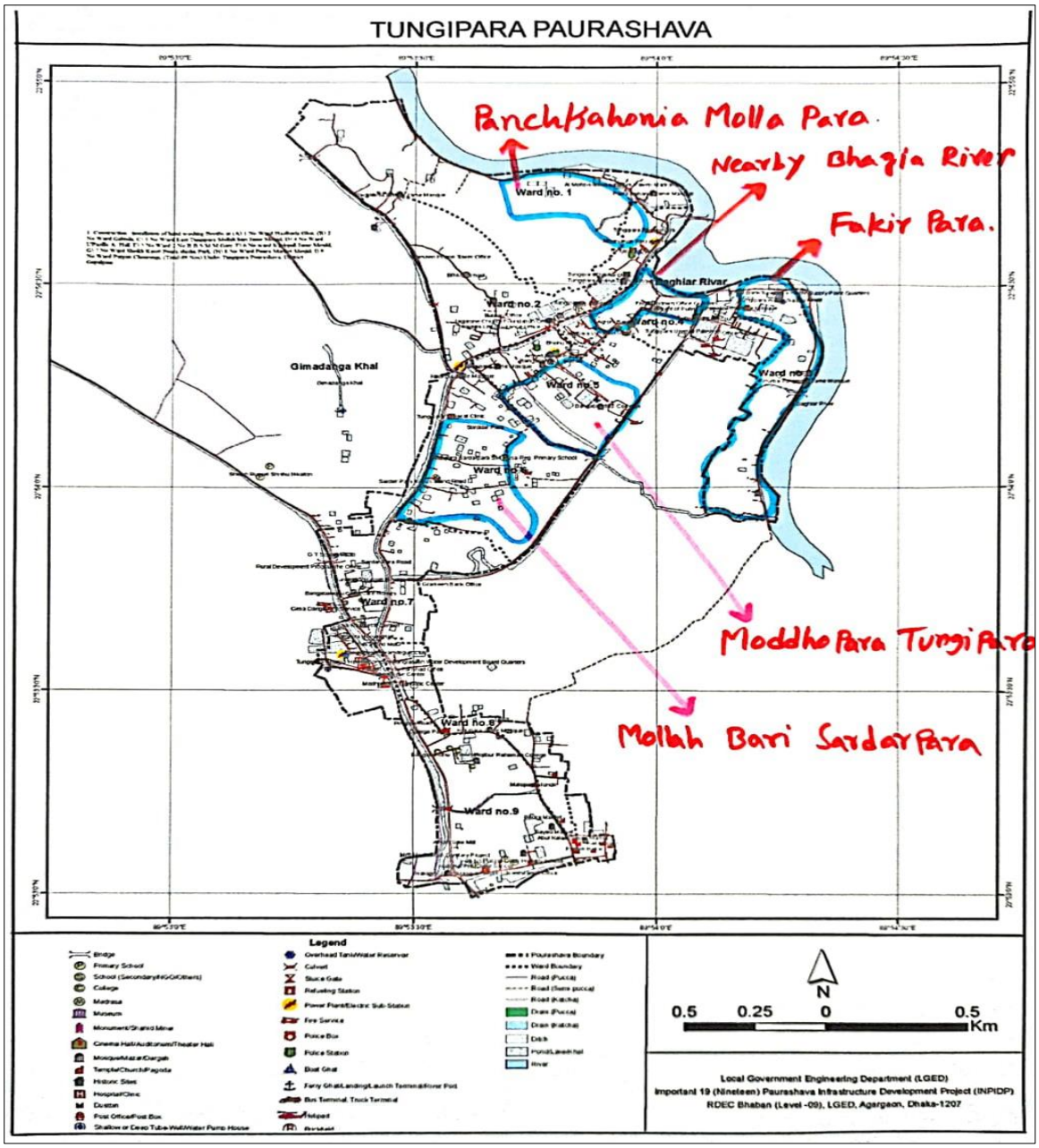


Figure1: Location Map of proposed LINICs

6. The overall objectives of the project are to strengthen the selected Pourashavas to reduced urban poverty and improved living conditions through planned, inclusive and sustainable urbanization, better city governance, and improved infrastructure and service provisions. The outcome will be better municipal governance and service delivery improved.

2. DESCRIPTION OF THE ENVIRONMENTAL SCREENING LINICs SUB-PROJECT

2.1 Sub-project location and surroundings areas

7. The Tungipara Pourashava is located in the Tungipara Upazila under Gopalganj District, between 22°50' and 23°01'north latitudes and between 89°48' and 89°57' east longitudes. The Pourashava consists with 9 Wards and 6 mouzas. The Pourashava is located at south central part of Bangladesh and about 150 km. (through Maowa) away from the Dhaka City. It is bounded by Gopalganj sadar and Kotalipara Upazilas on the north, Chitalmari and Nazirpur Upazilas on the south, Kotalipara Upazila on the east, Gopalganj Sadar and Mollahat Upazilas on the west. However, in the Upazilas valleys and low-lying areas, common people are still seen to be living in these kinds of houses.

8. According to a glance of Tungipara Pourashava the area of the Pourashava is 2.57 Sq km. According to the Census Year 2011, 8596 populations are living in the structure plan area with gross density 5.98 persons per acre and it will be 9770 in 2021 with gross density 7.01 persons per acre.

9. Annual population growth rate during the last decade was 1.1%. In Census Year 2011, 8596 populations are living in the structure plan area with gross density 5.98 persons per acre and it will be 9770 in 2021 with gross density 7.01 persons per acre. Assuming a continued annual growth rate of 1.1%, the projected population of the PS would reach 27527 in 2031. Density of population is 10711 persons per sq. km and the number of household is 2876.

10. The sub-project consists of 04 nos. Double unit (Type-A) toilets with 01 number septic tank and soak well, 113 nos. single unit (Type-A) toilets with 5 nos. septic tank and soak well, 6 nos. dustbin, 535 m footpath, 65 m RCC drain, 40 nos. Street light & 500 nos. tree plantation in 05 Lins (Panchkahonia Molla Para, Fakirpara, Nearby Bhagia River, Moddho para Tungipara, Mollah Bari Sardarpara) Lin with 05 lots under one package at Tungipara Pourashva, Gopalganj. The construction of LINICs upgradation infrastructure schemes will be constructed under the IUGIP.

Table 1: Proposed LINICs up-gradation sub-project in Tungipara Pourashava

FY	Pkg No	SL	Scheme Name/ Name of works	Qty.	Unit (m/nos.)
2023-2024	**Name of Sub-project:** Consists of 04 nos. Double unit (Type-A) toilets with 01 number septic tank and soak well, 113 nos. single unit (Type-A) toilets with 5 nos. septic tank and soak well, 6 nos. dustbin, 535 m footpath, 65 m RCC drain, 40 nos. Street light & 500 nos. tree plantation in 05 Lins (Panchkahonia Molla Para, Fakir para, Nearby Baghair River, Moddho para Tungipara, Mollah Bari Sardarpara) Lin with 05 lots under one package				
	IUGIP/TUNG/SI/01-05/2023 (Lot-01)	**Panchkahonia Molla Para, Ward no;1**			
		a)	Construction of 04 nos. Double unite (Type-A) toilets with 01 number septic tank and soak well.	4	nos.
		b)	Construction 17 nos. single unit (Type-A) toilets with 01 number septic tank and soak well.	17	nos.
		c)	Construction of 01 number dustbin	1	nos.
		d)	Construction of 144 m footpath.	144	m
		e)	Installation of 05 numbers of solar street light	5	nos.
		f)	Plantation of 100 nos. Tree	100	nos.
	IUGIP/TUNG/SI/01-05/2023(Lot-02)	**Fakir para, Ward no;3**			
		a)	Construction 21 nos. single unit (Type-A) toilets with 01 number septic tank and soak well.	21	nos.
		b)	Construction of 02 numbers dustbin	2	nos.
		c)	Construction of 80 m footpath	80	m.
		d)	Construction of 65 m RCC Drain with top slab.	65	m
		e)	Installation of 14 numbers of solar street light	14	nos.
		f)	Plantation of 100 nos. Tree	100	nos.
	IUGIP/TUNG/SI/01-05/2023 (Lot-03)	**Nearby Baghair River, Ward no;4**			
		a)	Construction 25 nos. single unit (Type-A) toilets with 01	25	nos.

			number septic tank and soak well.		
		b)	Construction of 01 number dustbin	1	nos.
		c)	Construction of 125 m footpath.	125	m
		d)	Installation of 06 numbers of solar street light	6	nos.
		e)	Plantation of 100 nos. Tree	100	nos.
	IUGIP/TUNG/SI/01-05/2023(Lot-04)	**Moddho para Tungipara, Ward no;5**			
		a)	Construction 24 nos. single unit (Type-A) toilets with 01 number septic tank and soak well.	24	nos.
		b)	Construction of 01 number dustbin	1	nos.
		c)	Construction of 83 m footpath	83	m
		d)	Installation of 10 numbers of solar street light	10	nos.
		e)	Plantation of 100 nos. Tree	100	nos.
	IUGIP/TUNG/SI/01-05/2023 (Lot-05)	**Mollah Bari Sardarpara, Ward no;6**			
		a)	Construction 26 nos. single unit (Type-A) toilets with 01 number septic tank and soak well.	26	nos.
		b)	Construction of 01 number dustbin	1	nos.
		c)	Construction of 103 m footpath.	103	m
		d)	Installation of 05 numbers of solar street light	5	nos.
		e)	Plantation of 100 nos. Tree	100	nos.

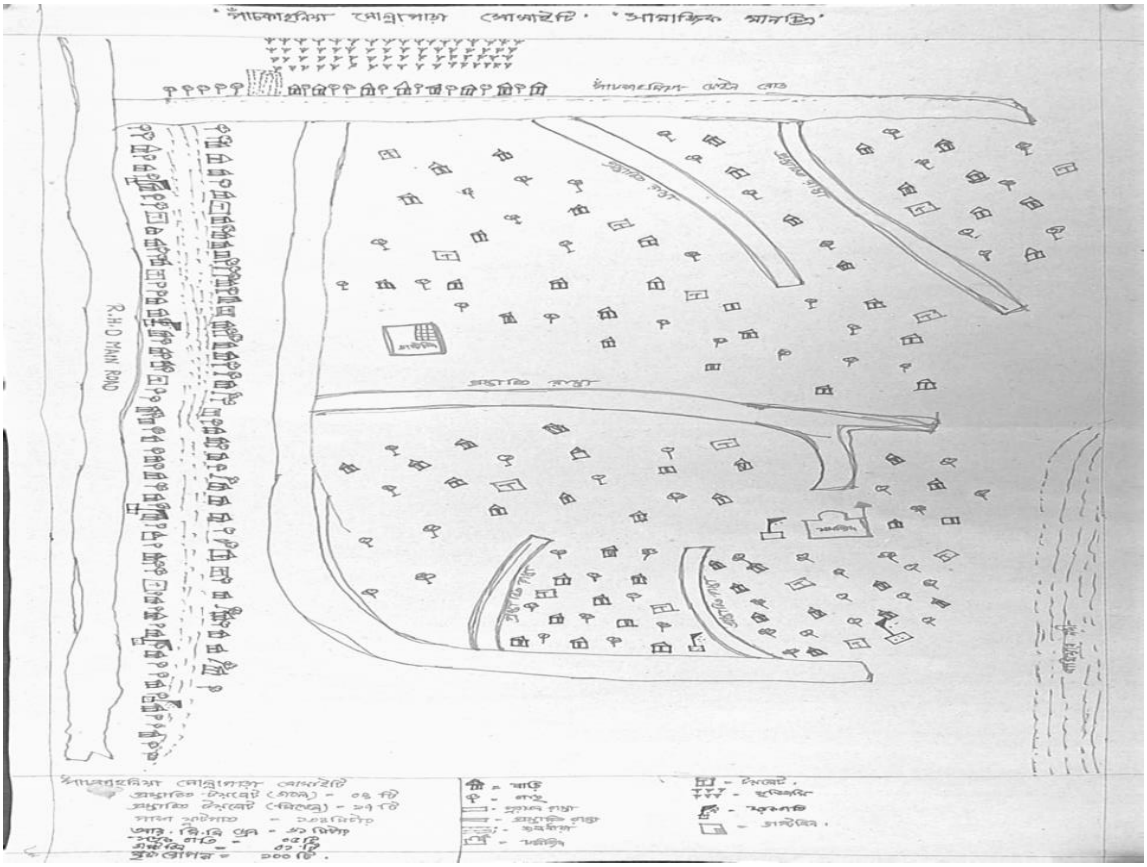


Figure 2: Site Map of Panchkahonia Molla Para LINICs

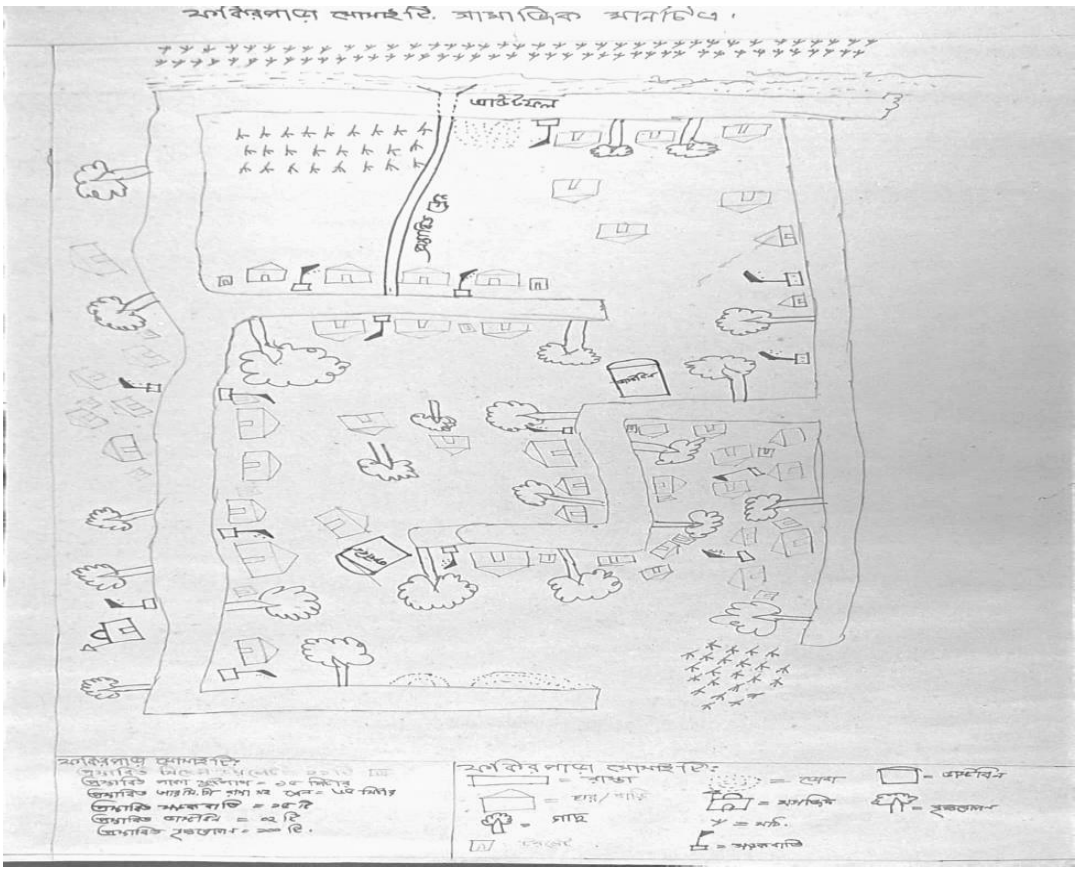


Figure 3: Site Map of Fakirpara LINICs

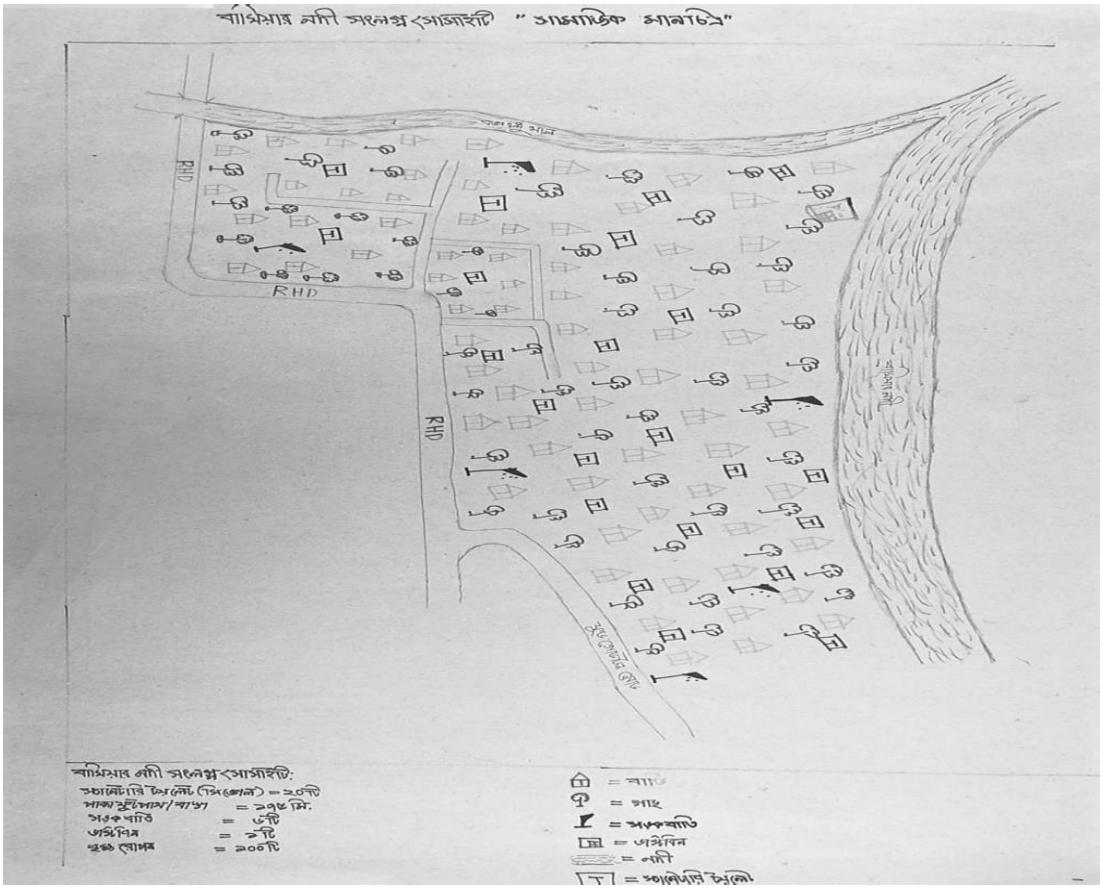


Figure 4: Site Map of Nearby Baghair River LINICs

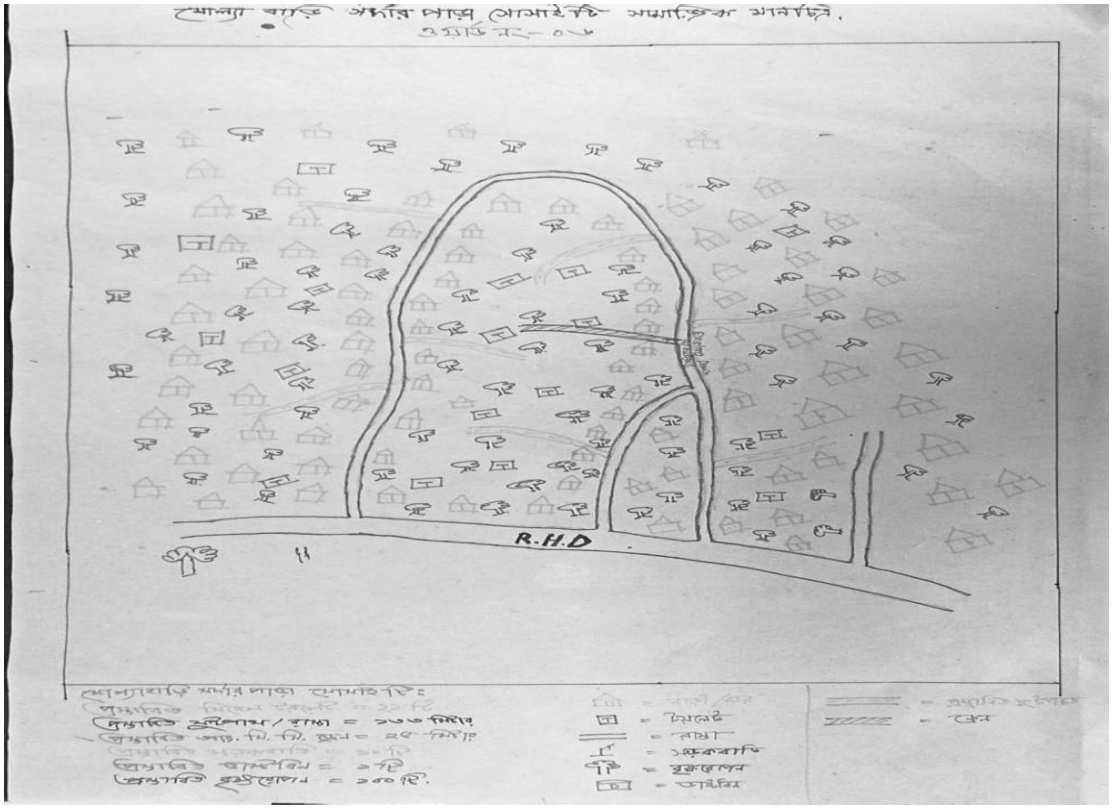


Figure 5: Site Map of Moddhopara Tungipara LINICs

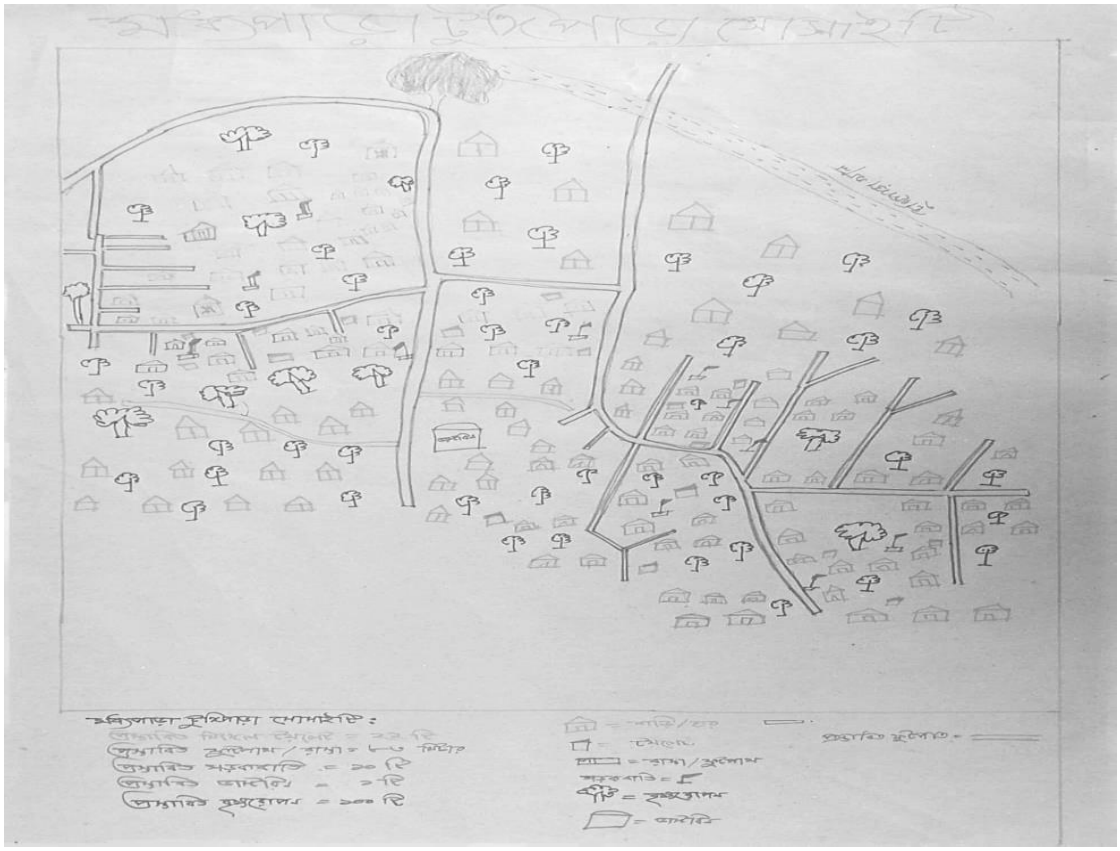


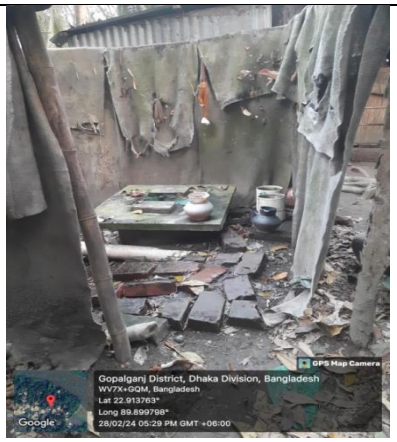
Figure 6: Site Map of Mollah Bari Sardarpara LINICs

2.2 Present condition of the environmental

13. **Flooding/Water-clogging**; Flood does not occur in this LINICs. The existing internal earthen drainage system in this LINICs are poorly functioning. However, water logging condition occurs due to heavy rainfall during rainy season. Construction of drain is necessary to remove water logging condition.
14. **Solid Waste Generation/Management/Dustbins;** In general, in the urban areas the waste generation rate in average is 0.25 kg/capita/day, in LINICs areas low income people resides where the waste generation rate has reckoned as 0.15 kg/capita/day. Accordingly, the waste generation calculation has been made. The number of dustbins has also been calculated accordingly.
15. Presently, solid waste is thrown at bank of Baghair river & Patgati khal, ditches, drain etc. and places out of dustbins due to lack of proper and sufficient dustbins. LINICs dwellers demanded sufficient number of dustbins. The proposed dustbin will be placed by the sides of the roads and away from the households for facilitating easy collection of waste and avoiding environmental & sanitation hazards. LINICs dwellers will use the proposed dustbins properly with their own responsibility. It will be discussed and encouraged to slum dwellers in court yard, Primary group and SIC meeting. The waste management system of LINICs will be connected with the existing waste management system of Pourashava. It is expected that the Pourashava existing waste management system will collect the waste from the proposed dustbins in the LINICs as they collect it from other dustbins located in the Pourashava area. For doing so it is expected that generation of solid waste will be minimized. Typical design of dustbins is given in Appendix-2.
16. **Sanitations;** There is no existing sufficient toilets facility in the slum area. Slum dwellers are facing scarcity of hygienic sanitation. Distance between toilet and tube-well has been included in Section-4 EMP. Double and Single unit toilets with septic tanks and soak pit have been designed following design options practiced by LGED and Pourashavas; some with septic tanks & soak wells and some with twin pits which will be made of RCC rings. The toilets are RCC column- beam structure with RCC roof. All the RCC works will be done using 40or 60 grade deformed bars and concrete compressive strength of at least 20 Mpa. There are provisions for electricity and water supply from tube wells, plumbing works and mini water tanks. The designs of the toilets have considered provisions for adequate ventilation, and provisions of ramps for facilitating the use of toilets by the disabled persons. Standard Operation Procedure (SOP) of toilet will be established and followed for cleaning and maintenance of the toilets and tube well. The proposed toilet is being constructed in an existing network. Typical design of double and single unit toilets is given in Appendix-2.
17. **Access roads/footpaths**; There is no existing paved road in the LINICs area and no pacca walkway also in the slum area. LINICs dwellers wanted footpath for their communication within the low income area. The proposed footpaths have been designed with RCC with concrete chips and over single layer Brick Flat Soling (BFS). LINICs area is connected by Pourashava roads. Images of existing slum condition are shown in figures-2. Typical design of footpath is given in Appendix-2.
18. **Street Lights;** There is no existing street light system in this LINICs area. Inadequate light during night time is an additional problem. Social nuisance creates due to lake of adequate street light. Pilferage and unsocial activities promote in the dark. The LINICs dwellers urged for street lighting system in and around the LINICs. Typical design of street light is given Appendix-2.
19. **Waste Water Management;** There is poor sequential waste water management system in the LINICs areas. The total need of water of LINICs dwellers is met by a shallow tube well. They drink tube well water and clean their utensils from the water of the tube well. The platform of the tube well is used as a bathing yard. The waste water of house hold is flown

to the nearby low-lying area/ditch/drain. The Outlet of proposed Tube well will be connected to the proposed soak pit. LINICs dwellers will be inspired or trained up during EMP implementation or operation period training to use water of septic tank & soak pit for homestead garden or others. The water percolates through the soil from the septic tank & soak pit that will recharge water table. The outlet of septic tank & soak pit is connected with existing drain to avoid over flow inundation.

20. **Drain;** the existing drains are earthen and are inactive in the LINICs. So, the LINICs dwellers experience water logging especially during rainy season. The proposed drains in the LINICs have been considered as tertiary drains and their outfalls are secondary drain to Poura secondary drains. All drains have been designed to be built by RCC/brick. But well-defined slopes and outfalls have been ensured. The U-type drains have been designed considering the constraint in land availability. The design life has been considered as 20 years. Integration/connection of Road side drains with the town drainage system has been considered and considering the possibilities of increased precipitation owing to probable climate change, the sections have been designed keeping allowance to accommodate 10% additional flow. Typical design of drains is given in Appendix-2.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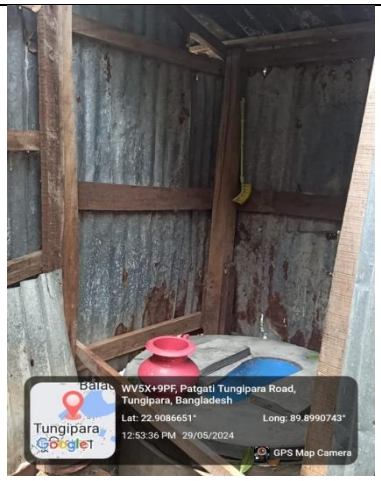
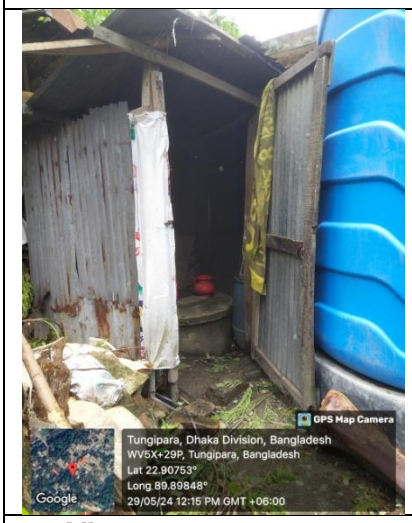
		
Nearby Bhagia River Lin	Nearby Bhagia River Lin	Nearby Bhagia River Lin
		
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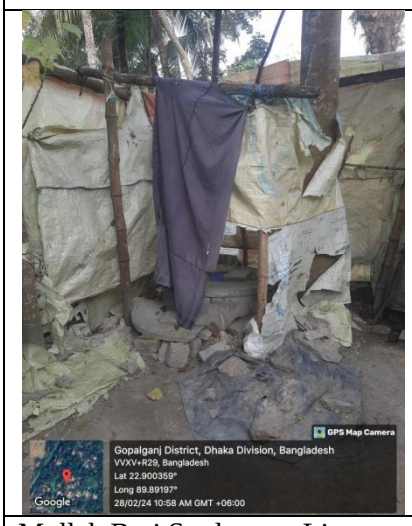
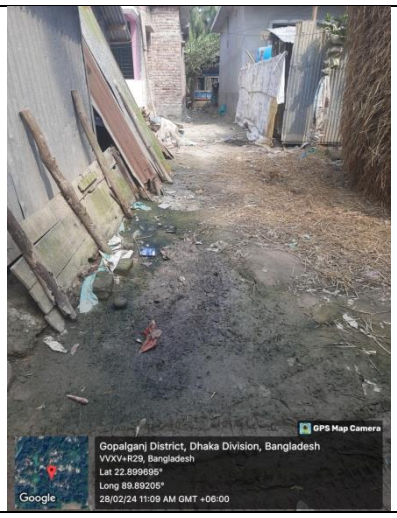
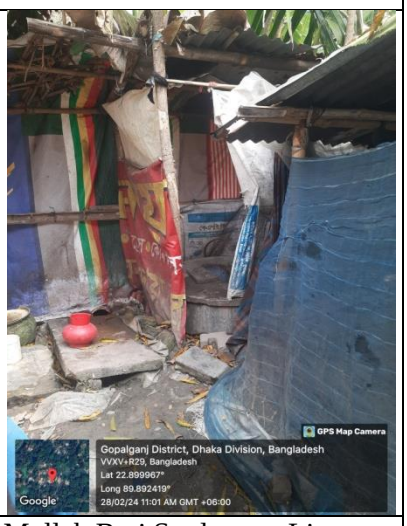
		
Mollah Bari Sardarpara Lin	Mollah Bari Sardarpara Lin	Mollah Bari Sardarpara Lin

Figure 7: Proposed/existing conditions of LINICs in Tungipara Pourashava

2.3 Design Concepts

11. The application and implementation of the ESMF will therefore:

- Support the integration of environmental and social aspects into decision - making

processes at all stages of the project cycle by identifying, avoiding and/or minimizing adverse environmental and social impacts at an early stage.

- Promote sustainable environmental and social outcomes through improved planning, design and implementation of sub-activities.
- Minimize environmental degradation as a result of either individual sub-projects or through their indirect, induced and cumulative effects.
- Avoid sub-projects with significant involuntary resettlement impacts,
- Protect human health.
- Minimize impacts on cultural property.

Figure 8: Location of Google Earth Map of Tungipara Pourashava

2.4 **Environmental impact assessment and mitigation measures**

21. The review process will be greatly facilitated by comprehensive and detailed answers in this section. When completing this section, please state a specific reason [i.e., “there will be no impacts to environment because this project will not involve any disturbance”] and cite a source [i.e., local master plan, previous environmental assessment, correspondence with Pourashava Office, etc.] to support a response of “no impact (-)” or “potential to impact (+).”

Table 2: Environmental Management Plan – Mitigation Measures

Environmental issues/concerns/components/ parameters/value	Potential impacts (+/-)	Description of impacts/problems	Environmental mitigation/enhancement measures	Responsibility
Pre-construction and construction phase				
Demolition of existing infrastructure: - Dust from demolition -Noise from demolition - Waste from demolition - Un-hygiene of demolition	(-)	▪ Different activities regarding the demolishing the existing structure (part) and broken footpath generate dust which impair the air quality ▪ Unhygienic/unsanitary environment due to demolition of old/poor infrastructure and construction of camps in the development site • Creation of noise from demolition is negligible	▪ Water will be sprayed to control the dust, which is the main way to suppress dust in the working site. ▪ Apply water to disturbed soils after demolition is completed or at the end of each day of cleanup. ▪ Transport/handle debris from demolished infrastructures in a hygienic manner. ▪ Tree plantation at the slum boundary/open space/slope of the road/footpath ▪ Collection of construction debris and dispose in a hygienic way by SIC and it is included in engineering estimate item (LGED rate schedule) ▪ PIU/SIC will strongly monitoring the construction activity and instant action will take	PIU, SIC
Dust Management	(-)	• Moving debris/sediments may create dusts during dry season. The impacts are negative but short-term, site-specific within a relatively small area and reversible by mitigation measures	• Use tarpaulins to cover soils, sand and other loose material. • Water will be sprayed to control the dust when necessary •	PIU, SIC
Community facilities and services - Blockage to access roads - Fire & Safety	(-)	• Construction works will impede the access of residents and businesses in limited cases. The impacts are negative but short-term, site-specific within a relatively small area and reversible by mitigation measures. Poor safety signage and lack of barriers at work site and trenches will create hazard to pedestrians and children. • Chances of fire only from open cooking in the area which may create major loss of property to the residence in the slum.	•Provide safety signage at all sites visible to public •Provide safety barriers near any trenches, and cover trenches with planks during non-work hours. •SIC's activities and movement of staff will be restricted to designated construction areas. •Consult with Pourashava local authority on the designated areas for stockpiling of, soils, gravel, and other construction materials. •If the SIC chooses to locate the work camp/storage area on private land, he must get prior permission from the environment management specialist and landowner. •-Recycling and the provision of separate waste receptacles for different types of waste shall be encouraged. •Workers need to be made aware of the following general rules: (i) no alcohol/drugs on site; (ii) prevent excessive noise; (iii) construction workers are to make use of the facilities provided for them,; (iv) no fires permitted on site except if needed for the construction works; and (v) no	PIU, SIC

Environmental issues/concerns/components/ parameters/value	Potential impacts (+/-)	Description of impacts/problems	Environmental mitigation/enhancement measures	Responsibility
			worker may be forced to do work that is potentially dangerous or that he/she is not trained to do. • Bucket filled with sand will be kept at the construction zone.	
Air/water/noise quality monitoring	(-)	• Component of works are scattered in the slum area, which are not located near-by any water stream/canal. There stands little probability of surface and ground water pollution, as nothing like gasoline, oil, road salts and chemicals are dumped on the adjoining ground. • Construction work yards are located in small areas and its activities are also minimum. Here the intensity of pollution from air/dust/ noise is also very low and short-term. As such little monitoring of water/air/noise pollution parameters is needed at the surroundings work place.	• No need for Air/water/noise quality monitoring in construction area by test due to short-term effect. • Water will be sprayed to control the dust when necessary, it will be visually observed	PIU, SIC
Drainage congestion/water logging	(-)	• Clogging/stagnation of flow in the storm drain • source of waste water is Slum dweller used water (bathing and washing) • Drainage congestion/water logging due to cross road/construction activity	• Designing drain considering the downstream discharge point; adequate slope and x-section; RCC cover for drain, where appropriate • Not allowing direct connection to drain from toilet • The out fall of proposed drain is ditch and no impact on natural water body as the coming water of proposed drain is rainfall run-off or household waste water.	PIU, SIC
Waste Management	(-)	• Uncollected wastes blocked the drainage and sewage system. • Air, water and soil pollution during the waste collection • Smoke from the open burning of uncollected waste. • The loading and unloading of waste at transfer station pollutes the air and soil. • Odor from waste disposal site and composting system. • Contamination of ground water by leachate.	• Encourage 3R (reduce, reuse, and recycle) • Encourage composting of kitchen waste on the basis of land availability otherwise transfer waste by hand trolley/van that is available in Pourashava and it is inspired by EMP implementation training. • Adequate distance between waste bin and water body. • Adequate distance should be maintained between the waste collection point and house • Coordinate with the municipality for collection of domestic waste and disposal at the designated site	PIU, SIC

Environmental issues/concerns/components/ parameters/value	Potential impacts (+/-)	Description of impacts/problems	Environmental mitigation/enhancement measures	Responsibility
Workers H&S	(-)	• There is invariably a safety risk when construction works such as excavation and earthmoving are conducted in urban areas. Workers need to be mindful of the occupational hazards which can arise from working in height and excavation works. Potential impacts are negative and long-term but reversible by mitigation measures.	• Comply with requirements of GoB Labor Law of 2006, Labor law and services rules 2015 and all applicable laws and standards on workers H & S. • Produce and implement a site health and safety (H&S) plan which include measures as: (i) excluding the public from worksites; (ii) ensuring all workers are provided with and required to use PPE at all times; (iii) providing (H&S) training for all site personnel; (iv) Providing fire extinguisher at construction site (v) documenting procedures to be followed for all site activities; and (vi) maintaining accident reports and records. • Arrange for readily available first aid unit including an adequate supply of sterilized dressing materials and appliances. • Ensure (i) uncontaminated water for drinking, cooking and washing, (ii) clean eating areas where workers are not exposed to hazardous or noxious substances; and (iii) sanitation facilities are available at all times. • Provide H&S orientation training to all new workers to ensure that they are apprised of the basic site rules of work at the site, personal protective protection, and preventing injuring to fellow workers;	PIU, SIC
Sanitation/excreta management	(-)	• Noise and soil pollution during the construction but short- term • Microbial contamination to the ground water from the pit latrine. • Waste during loading of sewage from the sanitary communal containers. • Odor	• Design and installation of sanitary hygienic to stop the microbial contamination to the ground water. • Adequate height with proper ventilation. • Water supply and hand wash facility • Regular cleaning and monitoring • Standard operation procedure (SOP) of Toilet in Appendix-3	PIU, SIC
IF necessary, Water supply (Tube well)	(-)	• Noise, dust and soil pollution during the construction but short- term	• The digging of soil should follow the proper design to avoid the pollution and water logging • The outlet of tube well should be connected with existing drain/proposed soak pit. • A person has been engaged for cleaning and maintenance of Tubewell. • One set of maintenance equipment of Tubewell is kept with SIC selected person • A soak pit has been provided to avoid unhygienic situation surrounding tube wells	PIU, SIC

Environmental issues/concerns/components/ parameters/value	Potential impacts (+/-)	Description of impacts/problems	Environmental mitigation/enhancement measures	Responsibility
Footpath/Dustbin	(-)	• Dust and noise pollution from construction work	• Watering to reduce dust • Tree plantation on the footpath/road slope	PIU, SIC
Street Light	(-)	• Dust and noise pollution from construction work of electric pole	• Watering to reduce dust • Standard operation procedure (SOP) of Street Light in Appendix-4	PIU, SIC
EMP implementation Training (Solid waste management, workers health and safety etc.)	(+)	• -Increase environmental awareness among the construction workers	• SIC and all workers will be required to undergo EMP implementation including solid waste management, Standard operating procedures (SOP) for construction works; health and safety (H&S), core labor laws, applicable environmental laws, etc. • Provided training on use of TW, toilet, solar panel and tree plantation etc. during preparation of Community Action Plan (CAP) • Training is a continuous process by Capacity Development Fund of Pourashava. It is financed by IUGIP.	PIU/SIC
Post construction and operation phase				
Water logging in drains and footpaths	(-)	Run-off from debris/ sediments from repair and maintenance of Footpath and drain which may cause siltation and reduction in the quality of adjacent bodies of water. The impacts are negative but short-term, site-specific within a relatively small area and reversible by mitigation measures.	• Take all precautions to prevent run-off into streams, water courses, or irrigation system. Install temporary silt traps or sedimentation basins along drainage leading to the water bodies. • Remove all debris/sediments immediately. • Dispose debris/sediments at a designated site such as landfill.	PIU, SIC
Water quality monitoring	(-)	Due to polluted water people may suffers from dangerous diseases like cholera, dysentery, diarrhea, Gastrointestinal disease and jaundice etc.	Necessary test of Tube well will be performed by Poura PRAP fund.	PIU, SIC
Solid Waste management	(-)	• Due to open dumping ambient environment will be polluted and will be breeding place of flies • Threat to human health and/or the environment • Due to bad odor nuisance to sensitive receptors	• The waste will soon be carried to the SLF by Pourashava SWM system • Develop rodent and fly control plan • Ensure residual waste is not left in bins and allowed to decompose for a long time	PIU/SIC
Community H&S - Walkway - Toilet conditions - Drinking water quality (Tube well)	(-)	• The inhabitants may dump waste on the walkway • Bricks used in BFS, may be stolen when CC will worn out with the passage of time • Inadequate supply of water to toilet may spread bad odor • Improper use may spread germ	• Awareness to the inhabitants to discourage dumping of waste on the walkway • Ensure annual maintenance by the SIC • Continuous supply of water will be provided • Awareness to user for proper use of latrine • SIC will engage a person to clean it regularly	PIU/SIC

Environmental issues/concerns/components/ parameters/value	Potential impacts (+/-)	Description of impacts/problems	Environmental mitigation/enhancement measures	Responsibility
		• Irregular cleaning may create unhygienic condition • Epidemic may spread due to deteriorated quality of water	• Routine and periodic maintenance will be done by SIC • Standard Operation Procedure (SOP) of Toilet inAppendix-3.	
Dustbin	(-)	• Improper use of dustbins • Irregular cleaning of dustbin may create bad odor and birth place of flies	• Awareness to the people for proper use of dustbins • SIC will engage a person who will monitor the cleaning the dustbin regularly	PIU/SIC
Street Light	(+)	• Increase social relation and decrease pilferage	• Regular maintenance will be done by SIC • Standard Operation Procedure (SOP) of Street Light in Appendix-4	PIU/SIC
Environmental awareness Training/workshop/meeting for the community (Maintenance of Tube well, Toilet, Planted Tree, Solar Panel, Solid waste Management)	(+)	• Increase environmental awareness among the community	• Twice a year Training/workshop/ meeting for maintenance of TW, Toilet, Solid waste management, Planted Tree and Solar panel will be organized by SIC/PIU and financed by Pourashava PRAP fund. • Provided training on maintenance of TW, toilet and Planted Tree, solar panel during preparation of Community Action Plan (CAP) • Regular maintenance of planted tree by slum dwellers	PIU/SIC

- (Construction Phase (For any "negative" impacts "Environmental mitigation measure" may be suggested. For any positive impacts environmental enhancement program may be carried out)

- (Operation Phase (For any "negative" impacts "environmental mitigation measure" may be suggested. For any positive impacts environmental enhancement program may be carried out)

2.5 **Environmental Monitoring Plan**

22. The monitoring plan is one of the important tools of the implementing the mitigation plan for the proposed LINICs sub-project. The Monitoring plan provides guidance regarding environmental issues/parameters, location, frequency and means of monitoring.

23. The cost of mitigation measures and surveys during construction stage will be incorporated into the contractor's costs, which will be binding on him for implementation. The surveys will be conducted by the contractors.

24. The objective of environmental monitoring during the construction and operation phases is to compare the monitored data against the baseline condition collected during the study period to assess the effectiveness of the mitigation measures and the protection of the ambient environment based on national standards. The main objectives of the pre-construction, construction and operation phase monitoring plans will be to:

    i. Monitor the actual impact of the works on physical, biological and socioeconomic receptors within the project corridor for indicating the adequacy of the Environmental Screening Report (ESR);
    ii. Recommend mitigation measures for any unexpected impact or where the impact level exceeds that anticipated in the ESR;
    iii. Ensure compliance with legal and community obligations including safety on construction sites;
    iv. Monitor the rehabilitation of borrow areas and the restoration of construction campsites as described in the EMP;
    v. Ensure the safe disposal of excess construction materials.
    vi. Appraise the adequacy of the ESR with respect to the project's predicted long-term impacts on the corridor's physical, biological and socio-economic environment;
    vii. Evaluate the effectiveness of the mitigation measures proposed in the EMP and recommend improvements, if and when necessary;
    viii. Compile periodic accident data to support analyses that will help minimize future risks; and
    ix. Monitor the survival rate of avenue plantations.

Table 3: Environmental Management Plan - Monitoring Actions

Parameters/issues/criteria to be monitored	Problems	Mitigation Measures	Monitoring Frequency	Budget
Pre-construction and operation phase				
Water quality	-Contamination (Arsenic, Iron etc.) or degrading of water quality of drinking water well	-Water quality of Tube well will be monitored periodically and DoE standard will be maintained properly. -The out fall of proposed drain is ditch	Twice a year/Yearly Operation /completion work	Pourashava
Biodiversity	Activities in the built-up area of Pourashava. There are no protected areas in or around Sub-project sites, and no known areas of ecological interest.	• No trees, shrubs, or groundcover may be removed or vegetation stripped without the prior permission. • Prevent workers or any other person from removing and damaging any flora (plant/vegetation) and fauna (animal).	No need for monitoring due to short-term project	PIU/SIC
Existing provisions for pedestrians and other forms of transport	Footpath closure is not anticipated. The impacts are negative but short-term, site-specific within a relatively small area and reversible by mitigation measures.	• Maintain safe passage for pedestrians during maintenance activities. • Notify affected sensitive receptors by providing sign boards informing nature and duration of maintenance activities and contact numbers for concerns/complaints. • Leave spaces for access between mounds of soil. • Ensure any damage to properties and utilities will be restored or compensated to pre-work conditions.	Duration of construction works	PIU/SIC
Workers health and safety	Workers need to be mindful of the occupational hazards working in confined spaces such as closed drains. Potential impacts are negative and long-term but reversible by mitigation measures.	• Comply with requirements of Government of Bangladesh Labor Law of 2006, Labor Law services rule 2015 and all applicable laws and standards on workers H&S. • Ensure that all site personnel have a basic level of H&S training. • Produce and implement a O&M and H&S plan which include measures as: (i) excluding the public from worksites; (ii) ensuring all workers are provided with and required to use personal protective equipment (reflectorized vests, footwear, gloves, goggles and masks) at all times; (iii) providing H&S training for all site personnel; (iv) providing fire extinguisher at construction site • Arrange for readily available first aid unit including an adequate supply of sterilized dressing materials and appliances • Disallow worker exposure to noise level greater than 85 dBA for duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.	Duration of construction works	PIU/SIC

2.6 **Budget for implementation of EMP**

25. The cost of mitigation measures and surveys during construction stage will be incorporated into the SIC's costs. The surveys will be conducted by the SICs.

26. The operation phase mitigation measures will be the responsibility of Pourashava/SIC. All monitoring during the construction and operation maintenance phase will be conducted by Pourashava therefore, there are no additional costs. The indicative costs of EMP implementation during construction period are shown in Table 4.

Table 4: EMP in CPP– LINICs up-gradation sub-project (each LINICs)

Item No.	Description of Items	Amount (Tk.)
Construction Period		
1	Providing and maintaining adequate potable water supply and sanitation facilities (Separate for Male and Female) at labor camp site including first aid box with necessary drugs to the entire satisfaction of E-in-C.	
	a) Sanitation: 2 nos. of temporary Toilets facility (1 no for male and 1 no for female) @ Tk. 10000.00	20,000.00
	b) Supply of potable water for drinking and household purposes for workers and staffs.	30,000.00
2	Water spraying for dust suppression	10,000.00
3	Supply of Personal Protection Equipment (PPE) helmet, gloves, safety shoes & glass, safety signs, first aid box with necessary drugs, Fire extinguisher and sand fill bucket etc. for workers.	35,000.00
4	EMP implementation training for workers/SIC members, One set of maintenance equipment of Tube well	10,000.00
5	Tree Plantation on the slope of road/footpath, 100 nos. of trees @ 550 TK/per tree (except LINICs area).	55,000.00
6	Proper storage of construction materials/equipment in a safe place and covering the sand with tarpaulins and fencing the site with barbed wire and cement should be stored on a dun age to avoid cake formation to the entire satisfaction of the E-in-C.	40,000.00
7	Proper maintenance of drainage system during construction period and after construction to drain out the surface water.	10,000.00
	Total	**2,10,000.00**
Note:		
-Water sample will be analyzed after installation of proposed Tube well by SIC and it is included in engineering estimate/cost estimate. -Water sample will be analyzed during Operation period by Pourashava PRAP budget (Arsenic, Iron, Manganese and Chloride)		
During operation period- training for maintenance of waste management, drainage cleans, footpath clean, septic tank clean, tube well, toilet and street light etc. N.B. After plantation of trees and it is maintained by LINICs dwellers		Pourashava PRAP budget

*** Cost of the EMP items should be as fixed budget*

2.7 **Public Consultations**

27. A public consultation meeting was held at LINICs up-gradation area on 02/04/2024 organized by Slum Development Officer (SDO) of Pourashava. The environmental specialist, MDSC, IUGIP facilitated the meeting where focal point of the Pourashava briefed the goals and objectives of the meeting to the participants.

28. Consultants described environmental and social issues in the context of development aspects and potential impacts of the infrastructure development work of the LINICs. The meetings were held through presided over, Slum Development Officer in-charge of Pourashava.

29. Participants of the meeting exchanged views with the safeguard team about their sufferings and the remedial measures to be taken to overcome it. Safe health & environment is very essential in the proposed sub-project area as people suffer from water

borne diseases frequently. So, they urged installation of more tube wells in the slums.

30. Water logging was an additional problem of the LINICs. Their yards inundate by rain water due to not having proper drainage provisions. It creates an un-hygienic condition of living i.e. breeding place of mosquitoes and flies which will cause of diseases. They wanted for an immediate relief from it through construction of drain. Inadequate internal road communication made their livelihood slower and creates physical stress to the resident of slum. Required footpaths would ease their safe movement. They asked for construction of necessary footpaths in their LINICs. There is inadequate dustbin in or around the LINICs As such LINICs dwellers cannot dump the waste specially the kitchen waste properly. It creates bad odor and un-hygienic condition in and around the areas. They wanted installation of more dustbins. Inadequate light during night time is an additional problem. Social nuisance creates due to lake of adequate street light. Pilferage and unsocial activities promote in the dark. The LINICs dwellers urged for street lighting system in and around the areas. The people demanded regular cleanliness of toilets and drains and spreading of medicine for killing mosquitoes. At present the few LINICs dwellers use hanging and pit latrine, which is a threat to public health and un-hygienic as well.

3. GRIEVANCE REDRESS MECHANISAM (GRM)

3.1 Common GRM

31. A common GRM will be in place for social, environmental, or any other grievances related to the project; the resettlement plans (RPs) will follow the GRM described below, which is developed in consultation with key stakeholders. The GRM will provide an accessible and trusted platform for receiving and facilitating resolution of affected persons' grievances related to the project. The multi-tier GRM for the project is outlined below, each tier having time-bound schedules and with responsible persons identified to address grievances and seek appropriate persons' advice at each stage, as required.

32. Pourashava-wide public awareness campaigns will ensure that awareness on grievance redress procedures is generated through the campaign. The project implementation unit (PIU) and governance improvement and capacity development consultants (GICDC) will conduct Pourashava-wide awareness campaigns to ensure that poor and vulnerable households are made aware of grievance redress procedures and entitlements and will work with the PMU and management, design and supervision consultants (MDSC) to help ensure that their grievances are addressed.

33. Affected persons (APs) will have the flexibility of conveying grievances/suggestions by dropping grievance redress/suggestion forms in complaints/suggestion boxes that have already been installed by project Pourashavas or through telephone hotlines at accessible locations, by e-mail, by post, or by writing in a complaint register in Pourashava offices. Careful documentation of the name of the complainant, date of receipt of the complaint, address/contact details of the person, location of the problem area, and how the problem was resolved will be undertaken. The project management office (PMU) safeguard officer will have the overall responsibility for timely grievance redress on environmental and social safeguards issues and for registration of grievances, related disclosure, and communication with the aggrieved party through the PIU designated safeguard focal person.

3.2 General

34. The objective the grievance redress mechanism (GRM) is to resolve complaints as quickly as possible and at the local level through a process of conciliation; and, if that is not possible, to provide clear and transparent procedures for appeal. A well-defined grievance redress and resolution mechanism will be established to resolve grievances and complaints in a timely and satisfactory manner. All affected persons will be made fully aware of their rights, and the detailed grievance redress procedures will be publicized through an effective public information campaign

3.3 Grievance Redress Process

12. In case of grievances that are immediate & urgent in the perception of the complainant, the contractor & MDSC on-site personnel will provide most easily accessible/first level of contact for quick resolution of grievances. Contact phone numbers & names of the concerned PIU safeguard focal person & contractors; will be posted at all construction sites at visible locations.

a. 1st Level Grievance

13. The phone number of the PIU office should be made available at the construction site signboards. The contractors and PIU safeguard focal person can immediately resolve on-site in consultation with each other, and will be required to do so within 7 days of receipt of a complaint/grievance.

a. 2nd Level Grievance

14. All grievances that cannot be redressed within 7 days at field/ward level will be reviewed by the grievance redress cell (GRC) headed by Panel Mayor of the Pourashava with

support from PIU designated safeguard focal person and MDSC regional environment and resettlement specialists. GRC will attempt to resolve them within 15 days The PIU designated safeguard focal person will be responsible to see through the process of redress of each grievance.

c. 3rd Level Grievance

15. The PIU designated safeguard focal person will refer any unresolved or major issues to the PMU safeguard officer and MDSC environmental and resettlement specialists. The PMU in consultation with these officers/specialists will resolve them within 30 days.

16. Despite the project GRM, an aggrieved person shall have access to the country's legal system at any stage and accessing the country's legal system can run parallel to accessing the GRM and is not dependent on the negative outcome of the GRM.

17. In the event that the established GRM is not in a position to resolve the issue, the affected person also can use the ADB Accountability Mechanism (AM) through directly contacting (in writing) the Complaint Receiving Officer (CRO) at ADB headquarters or the ADB Bangladesh Resident Mission (BRM). The complaint can be submitted in any of the official languages of ADB's DMCs. The ADB Accountability Mechanism information will be included in the PID to be distributed to the affected communities, as part of the project GRM.

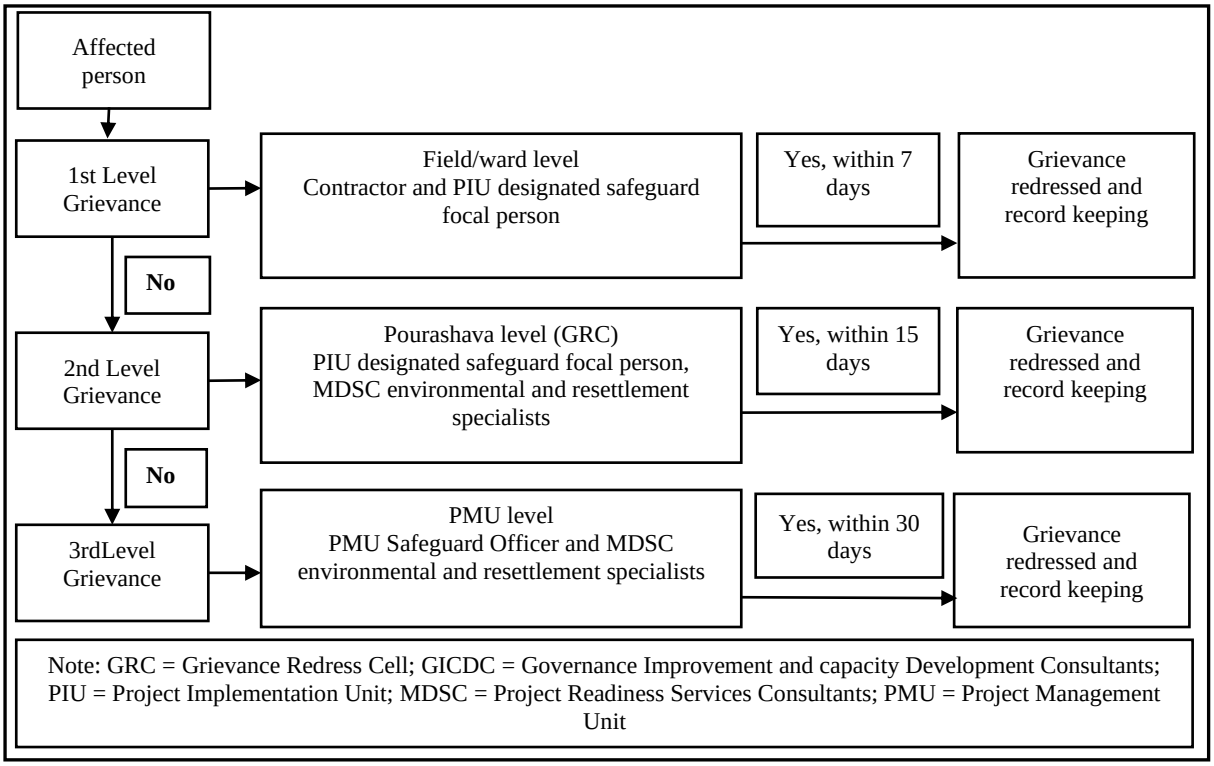


Figure 9: Project Grievance Redress Mechanism

3.4 Recordkeeping

18. Records of all grievances received, including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions, and the date these were affected and outcome will be kept by PIU/SIC. The number of grievances recorded and resolved and the outcomes will be displayed/disclosed in the PMU office, Pourashava office, and on the web, as well as reported in monitoring reports submitted to ADB on a semi-annual basis.

3.5 Periodic Review

19. The PMU safeguard officer will periodically review the functioning of the GRM in each Pourashava and record information on the effectiveness of the mechanism, especially on the project's ability to prevent and address grievances.

3.6 Costs

20. All costs involved in resolving the complaints (meetings, consultations, communication, information dissemination) will be borne by the concerned PIU at Pourashava-level; while costs related to escalated grievances will be met by the PMU. Cost estimates for grievance redress related to both for social and environmental issues are included in resettlement cost estimates.

3.7 Land Acquisition and Resettlement

21. The proposed sub-project to be constructed in Pourashava owned land and through the existing network. So not required for LINICs up-gradation improvement land acquisition. There are no encroachers or residential/ commercial structures in the proposed area as per the study of social and resettlement team. In addition, there is no squatters will be disturbed due to the proposed sub-project as per the social and resettlement assessment. Hence, no negative impacts are envisaged due to the sub-project.

22. The concepts considered in design of the LINICs up gradation sub-project are: (i) prioritizing rehabilitation/ maintenance over new construction; (ii) locating facilities on government/ Pourashava-owned land to avoid the need for land acquisition; (iii) taking all possible measures in design and selection of sites to avoid resettlement impacts; (iv) avoiding where possible locations that will result in destruction/disturbance to historical and cultural places/values; (v) avoiding tree-cutting where possible; (vi) ensuring all planning and design interventions and decisions are made in consultation with local communities and reflecting inputs from public consultation and disclosure for site selection.

Table 5: Scheme specific impacts and mitigations

Name of LINICs	Name of schemes	Existing Conditions & Impacts	Mitigations
Panchkahonia Molla Para	Constuction of 04 nos. Double unite (Type-A) toilets with 01 number septic tank and soak well & 17 nos. single unit (Type-A) toilets with 2 nos. soak pit, 01 number dustbin, 144 m footpath, Installation of 05 numbers of solar street light & 100 nos. Tree Plantation in Panchkahonia Molla Para Lin, ward no-01 under Tungipara Pourashava	• Existing toilets/footpaths/drains/ dustbins and street light facilities etc. are very poor condition. • No impact on trees, temporary/ permanent structures • Water logging occurred	• There are no impacts on biodiversity. • General mitigation and monitoring measures are applicable
Fakir para	Construction of 21 number single unit (type-A) toilets with 01 number septic tank and soak well. 02 numbers dustbin, 80m footpath, 65 m RCC drain with top slab, Installation of 14 numbers of solar street light & 100 nos tree plantation in Fakir para Lin, ward no-03 under Tungipara Pourashava	• Existing toilets/footpaths/drains/ dustbins and street light facilities etc. are very poor condition. • No impact on trees, temporary/ permanent structures • Water logging occurred during rainy season.	• Spraying of water on the roadways and other dusty surfaces should be done during the dry season. • There are no impacts on biodiversity. • General mitigation and monitoring measures are applicable • Barriers should be given at specific location during construction

Name of LINICs	Name of schemes	Existing Conditions & Impacts	Mitigations
Nearby Bhagia River	Construction 25 nos. single unit (Type-A) toilets with 01 number septic tank and soak well, 01 number dustbin, 125 m footpath, Installation of 06 numbers of solar street light & 100 nos tree plantation in Nearby Baghair River Lin, ward no-04 under Tungipara Pourashava	• No impact on trees, temporary/permanent structures • Existing toilets/footpaths/drains/ dustbins and street light facilities etc. are very poor condition • Water logging occurred during rainy season • This scheme is mostly along the residential areas	• There are no impacts on biodiversity. • General mitigation and monitoring measures are applicable • Barriers should be given at specific location during construction • Install road sign and caution tape
Moddho para Tungipara	Construction 24 nos. single unit (Type-A) toilets with 01 number septic tank and soak well, 01 number dustbin, 83 m footpath, Installation of 10 numbers of solar street light & 100 nos tree plantation in Moddho para Tungipara Lin, ward no-05 under Tungipara Pourashava.	• No impact on trees, temporary/ permanent structures • Water logging occurred during rainy season • This scheme is mostly along the thickly populated areas	• There are no impacts on biodiversity. • General mitigation and monitoring measures are applicable • Barriers should be given at specific location during construction
Mollah Bari Sardarpara	Construction 26 nos. single unit (Type-A) toilets with 01 number septic tank and soak well, 01 number dustbin, 103 m footpath, Installation of 05 numbers of solar street light & 100 nos tree plantation in Mollah Bari Sardarpara Lin, ward no-06 under Tungipara Pourashava	• No impact on trees, temporary/ permanent structures • Water logging occurred during rainy season • This scheme is mostly along the residential areas	• There are no impacts on biodiversity. • Temporary cover or install caution tape on the during construction at sensitive locations • Barriers should be given at specific location during construction

3.8 Implementation Schedule

23. Substantial time is required spanning the continuum of sub-project preparation, approval, survey, design & estimate, contract award and contract execution. Efforts needs to be made to meticulously follow the schedule should a timely implementation of work is aimed at.

Usually, the construction work season in Bangladesh runs from October through May (eight months). Construction works are sometimes impeded for the following reasons.

- Early floods in April/May,
- Late floods in September/October,
- Natural calamities (cyclone/tornado, excessive floods) occur in April/May and October/November.

24. Normally, the best construction period is only for 6 months a year (October to March). The construction period is sometimes squeezed to 4 months due to natural calamities.

25. However, sometimes, based on time constraint or exigency, construction work may even need to be carried out in the monsoon. Besides, whenever possible, simultaneousness of activities can be ascertained and cashed in on and consequently, quantum of work can be maximized through efficient planning and adoption of best available practice.

26. Summing up, over a 18-months period, major works are advisable to take place between June, 2024 and June, 2025. A tentative time-schedule for implementation is shown below (only as indication) is shown Table 6.

Table 6: Sub-project Implementation Schedule

Item Works	2023		2024												2025					
	11	12	01	02	03	04	05	06	07	08	09	10	11	12	01	02	03	04	05	06
Selection of LIN																				
LINIC formation																				
CAP Preparation and approval																				
Preparation of design Cost Estimate and approval & Contract sign																				
Execution of the physical work																				
Final inspection and certification																				

3.9 Institutional Capacity Development Program

27. As a part of the capacity building during the implementation of IUGIP RBL Program, training programs will be conducted at PMU, PIUs (at Pourashava level) and sub-projects construction sites on environmental and social safeguards policies, and how to prepare safeguard planning and monitoring instruments and implement them. The subproject sites/PIU/SIC level training programs will focus on the awareness about safeguard requirements among the PIU and contractor staff who will involve in activities related to construction of street light, dustbins, drains, footpath/walkway, toilet block, low-income neighbourhoods' improvement community up-gradation components. The capacity building training programs will be conducted by the PMU environmental specialist with the assistance of MDSC environmental specialist and social safeguard specialist from PMU with MDSC social safeguard expert. The site level training programs will focus on EMP implementation, safety measures, monitoring, resettlement plan implementations, measures to avoid or minimize involuntary resettlement impacts, etc. At the PMU level, safeguards training program will focus on loan covenants compliances, monitoring requirements and reporting to ADB and regulatory agencies. The details training modules will be devised during safeguards document preparation.

28. During Program supervision missions, ADB will assess environmental compliance of sub-projects and will recommend safeguard strengthening exercises, if required. It will also support the strengthening of the application of environmental safeguard policy principles to sub-projects, safeguard compliance and monitoring of safeguard compliances.

29. PMU and MDSC will also organize trainings for PMU officials, PIU staffs, SICs/ Contractors, Pourashava officials orienting them on environmental and social safeguards principles as outlined in ADB SPS 2009, EMP and resettlement plan implementation, including GRM, and social safeguards monitoring requirements and mitigation measures. Table 7 provides the indicative training needs assessment. The cost of trainings will be borne under the Project's capacity building program by PMU.

Table 7: Indicative Training Program

Description	Contents	Schedule	Participants
Program 1 Orientation Workshop	**Module 1 – Orientation** ADB Safeguard Policy Statement Government of Bangladesh policy **Module 2 – Social/Environmental Assessment and Resettlement Planning/IEE Process** ADB policy and process, identification of impacts and mitigation measures, IEE, DDR and RP preparation, implementation, and monitoring requirements. Incorporation of safeguards into project design and contracts. Importance of robust GRM.	1 Day	LGED officials involved in project implementation PMU, PIUs, P*ourashava* officials
Program 2 Workshop for Contractors and Supervisory staff	IR/environmental issues during construction Implementation of IEE, DDR and RP Monitoring of IEE, DDR and RP implementation, Reporting Requirements, GRM	1 Day	PIUs, Contractors
Program 3 Experiences and Best Practices Sharing	Experiences on IEE, DDR and RP implementation, grievance redress – Issues and Challenges - Best Practices followed	1 Day (On a regular interval to be determined by PMU and MDSC)	PMU, PIUs MDSC, SICs/Contractors

3.10 Institutional Arrangement

30. **Civil works contracts and SICs**. EMPs are to be included in bidding and contract documents and verified by the PIUs and PMU. The contractor will be required to designate an Environment, Health and Safety (EHS) supervisor to ensure implementation of EMP during civil works. Contractors are to carry out all environmental mitigation and monitoring measures outlined in their contracts.

31. The SICs/Contractors will ensure that bidding and contract documents include specific provisions requiring contractors to comply with: (i) all applicable labor laws and core labor standards on (a) prohibition of child labor as defined in national legislation for construction and maintenance activities; (b) equal pay for equal work of equal value regardless of gender, ethnicity, or caste; and (c) elimination of forced labor; and with (ii) the requirement to disseminate information on sexually transmitted diseases, including HIV/AIDS, to employees and local communities surrounding the project sites

3.11 Governance Improvement and Capacity Development Consultants (GICDC)

32. The PMU and PIUs will require support on a range of activities related to governance improvement and capacity development of Pourashavas. The GICDC will support PMU and PIUs in implementing urban government improvement action plan (UGIAP) by providing capacity development, community mobilization and other facilitation services. There are 4 GICDC regional officer working with the project and their posting place is in the LGED head office. There are 2 Local Capacity Development Associates (Community Mobilization and Municipal Finance) in each project Pourashava. The regional coordinators are assisting the Pourashavas and the LCDAs in the activities related to community participation and inclusive development. The community mobilizers have been posted at the Pourashava and (i) are working maintaining close liaison with the mayor, councilors, Pourashava staffs and communities, (ii) providing assistance and support to PIU regarding planning and implementation of citizen awareness and participation activities, urban planning, equity and inclusiveness of women and urban poor. The GICDC also have a training specialist who is responsible for identifying and coordinating capacity building activities at Pourashava level Figure 10.

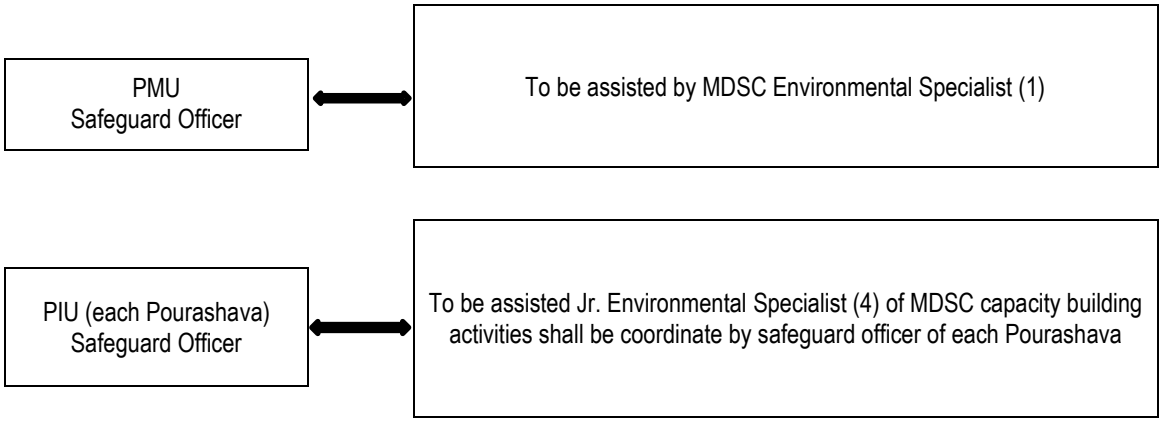


Figure 10: Safeguards Implementation Arrangement

33. Costs required for implementing the EMP will cover the following activities:

    (i) Updating ESR, preparing and submitting reports and public consultation and disclosure;
    (ii) Application for environmental clearances; and
    (iii) Implementation of EMP, environmental monitoring program and long-term surveys.

34. The infrastructure involved in each scheme is generally straightorward and will take between three and nine months to build. Environmental monitoring during construction will also be straightforward and will involve periodic site observations and interviews with workers and others, plus checks of reports and other documents. This will be conducted by MDSC environmental specialist assisted by the PMU environment officer (Sr. Assistant Engineer). Therefore, no separate budget required for MDSC environment management specialist.

35. The operation phase mitigation measures are again of good operating practices, which will be the responsibility of Pourashava. All monitoring during the operation and maintenance phase will be conducted by LGED therefore, there are no additional costs.

4. MONITORING AND REPORTING

36. As a results-based loan, the LGED has to ensure that environmental and social safeguard impacts and risks are adequately addressed. Periodic monitoring by the Safeguard Cell, MDSC environmental and social safeguard specialists and the designated safeguard focal personal PIU will help to apply ESMF to the IUGIP RBL Program. With ADB's assistance, the LGED will develop a mechanism to reduce safeguard risks through credible results verification mechanism built into the project.

37. The Executing Agency and ADB will have their own safeguard compliance monitoring systems. At the PMU level the Safeguard team will develop a safeguard monitoring methodology for the RBL program with the support and of MDSC. The PMU will:

    i. Establish and maintain procedures to monitor the progress of implementation of safeguard plans. For the RBL program, the key safeguard implementation plans will be the EMP for each sub - project and resettlement plans for subprojects where involuntary resettlement impacts are triggered.
    ii. With the assistance of the MDSC safeguard experts will verify the subproject's compliance with safeguard measures and its progress toward intended outcomes.
    iii. Document and disclose monitoring results and identify necessary corrective and preventive actions in semi-annual monitoring reports.
    iv. Submit monitoring reports on safeguard measures, as agreed, to ADB for review and approval.
    v. Follow up on these actions to ensure progress toward the desired outcomes.

38. PIUs will monitor implementation of EMPs, Resettlement Plans, TMRESC Development Plans of the RBL program activities /subprojects with the support of the MDSC. The contractor will conduct day to day implementation of these plans on site and submit monthly reports to their respective PIUs. The monthly reports will include compilation of copies of monitoring sheets accomplished and duly signed by the contractors' EHS Officers (or equivalent) on a weekly basis. The PIUs, assisted by MDSC, will submit quarterly safeguards monitoring reports to PMU.

39. MDSC safeguards expert at PMU, will consolidate monitoring reports, and prepare a consolidated semi-annual environmental and social monitoring report (ESMR) for overall RBL Program. PMU shall review and approve these reports and will be disclosed on the LGED/PMU website. These monitoring and reporting activities and tasks shall continue throughout the implementation of the program. In the annual progress reports of the RBL program submitted to ADB, PMU will include environmental and social safeguards sections. PMU will report status and compliance of safeguards program actions periodically to ADB. ADB will conduct review of safeguard compliances of RBL program activities/subprojects on a sample basis during the periodic review missions.

5. CONCLUTION

40. So, there will be no negative impact for the LINICs up-gradation implementation of the sub-project and if there is any that would be very minimum most of which are construction related, localized and for short-term.

41. Moreover, there will be a lot of positive impacts such as:

- Environmental & hygienic sanitation conditions will be up-gradation.
- Low Income Neighbourhood Improvement Community's (LINICs) up-gradation dwellers will have comfortable walkway and improved drainage.
- Water-logging will be removed which will eliminate the mosquito breeding resulting the reduction of many diseases including waterborne diseases.
- LINICs dwellers will have facilities for pure street light, drinking water and facilities for solid waste disposal.
- There will be savings in the medical treatment cost. Thus, health conditions will be improved etc.

42. .Therefore, the proposed sub-project is unlikely to cause significant adverse impacts and net environmental benefits to citizens of Tungipara Pourashava will be positive. The potential impacts that are associated with design, construction, and operation can be mitigated to standard levels without difficulty through proper engineering design and the incorporation or application of recommended mitigation measures and procedures.

43. Based on the findings of the Environmental Screening there are no significant impacts and the classification of the LINICs up-gradation improvement sub-project as Category not specified in section-1 of ECR 2023. No further special study or detailed environmental assessment needs to be undertaken to comply with ADB. All required issues have been assessed to the best of our knowledge and no further studies are required to comply with ADB procedures or the laws of GoB.

APPENDICES

Appendix 1: Environmental screening and categorization Form

Eligibility & Categorization Form;

Country/ Project No./ Project Title		Improving Urban Governance and Infrastructure Program (IUGIP)
Subproject title		Low Income Neighborhood Improvement Community upgradation RBS sub-project
Project Executing Agency		LGED, Dhaka
Project Implementing Agency		Tungipara Pourashava
Modality		RBL progress
Is Project eligible for funding under the RBL Program? [√] Yes [ ] No *(Ref DOE of ECR 2023)*		
Environment Impact categorization [√] New [ ] Re categorization – Previous Category [ ]		
[ ] **Category A** (Cat A - Not eligible for funding under the RBL)		
[√] **Category B** [ ] **Category C**		
(Ref Checklist- Rapid Environmental Assessment (REA) checklists)		
Prepared by: Md. Habibur Rahman Jr. Environmental Specialist		
Environmental Specialist (Name, title, signature): Date;		
For Project Executing Agency / PMU (Name, title, signature):		

Checklist 1 - Project Exclusion Screening Checklist for Environmental Safeguards

The following checklist shall be completed before inclusion of any activity/subproject in the RBL program. If Answer to any of the mentioned criteria is 'Yes' then such activity/subproject will not be eligible and shall be excluded from the RBL program.

Questions		Response		Remarks /Clarifications
		Yes	No	
1.	**Type and Nature of Subproject**			
1.1	Proposed activity / subproject classified under the Red Category per ECR 2023?		√	Complied the ECR 2023 for classification
1.2	Proposed activity / subproject includes components involving prohibited investment activities per ADB SPS?		√	Complied REA for prohibited list
2.	**Location of Proposed Subproject**		√	
2.1	Proposed activity/subproject located in ecologically sensitive areas such as protected areas (national parks, wildlife sanctuaries), notified wetlands or wetlands of significant value, critical habitats?		√	
2.2	Proposed activity/subproject located in world heritage sites, and/or within 250 m from the core zone of outer boundary of the world heritage area		√	
2.3	Proposed activity located within monuments/sites protected by Department of Archeology, Government of Bangladesh?		√	
3.	**Potential impacts**			
3.1	Proposed activity/subproject may significantly impact mangroves, wetlands, estuaries, buffer zones of protected Areas etc?		√	
3.2	Proposed activity/subproject may potentially lead to encroachment/damage of physical cultural resources with significant value and/or places recognized by government agencies (e.g., Department of Archeology), which may include places of worship,		√	

	cultural heritage sites, graves/cemeteries, historical monuments, etc.			
3.3	Proposed activity/subproject likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented, and may affect an area larger than the sites or facilities subject to physical works (i.e., category A projects as per ADB SPS 2009)		√	

REA check list

Instructions:

i. The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Project Management Unit, for endorsement by the Environmental Officer of PMU and for approval by the Project Director

ii. This checklist focuses on environmental issues and concerns

iii. Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures

Sl no	Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following environmentally sensitive areas?				
1	Cultural heritage site		√	There is no protected area at the proposed site
2	Protected Area		√	There is no wetland area at the proposed site
3	Wetland		√	Not Applicable
4	Mangrove		√	Not Applicable
5	Estuarine		√	Not Applicable
6	Buffer zone of protected area		√	There is no special protected area for biodiversity within 5km aerial distance from the proposed site
7	Special area for protecting biodiversity		√	There are no buildings of archaeological and cultural heritage importance close to the sub-project.
8	100m distance from flowing water way?		√	
9	20m distance from static water supply?		√	
10	Training on before construction/ SOP and PPE, health and	√		
11	Proper way of fecal dumping generated wastes?	√		
12	Separate toilet for male and female?	√		
13	Toilet has good access for community people?	√		
14	Community toilets ram and hand railing facility for disabled and old aged person?	√		
15	Any Biogas Generation Plan nearby?		√	
16	H & S measures maintained by workers during construction /management of disinfection?	√		
17	Proper water supply & electricity availability camp site Ensured?	√		
18	Toilet swear outlet connected to a Pourashava sewerage?	√		
19	community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and		√	
20	Proper Ventilation access availability?	√		

Appendix 2: Typical detail design of proposed LINICs

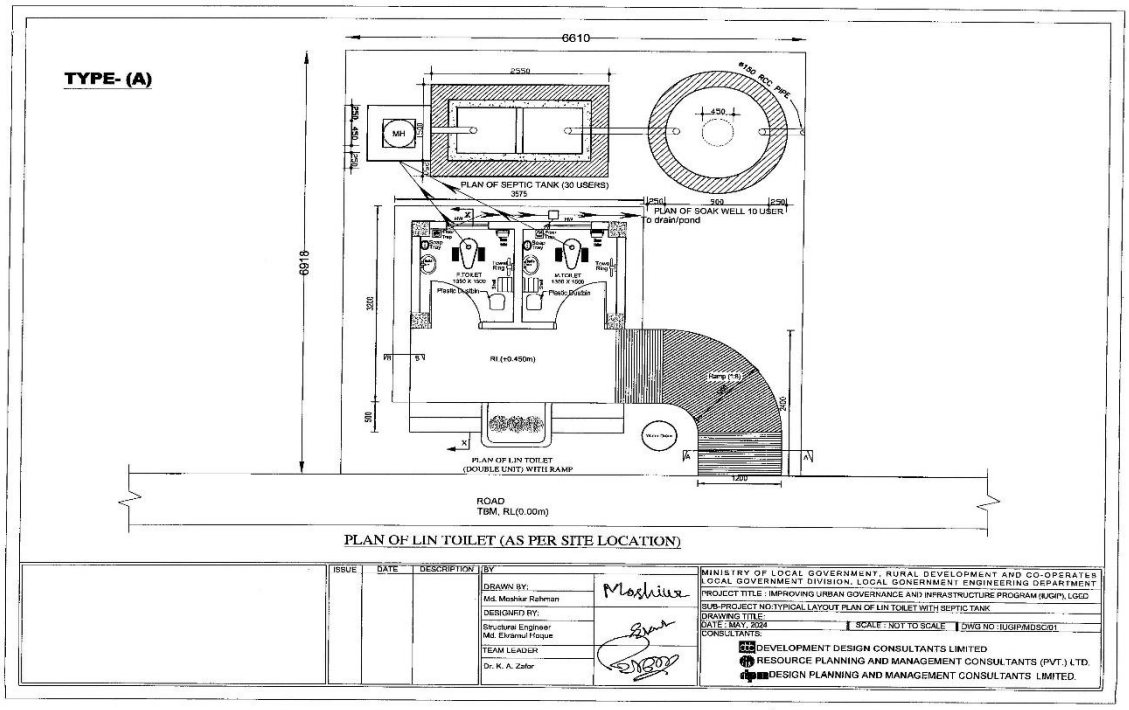


Figure: Cross-section of double unit toilets

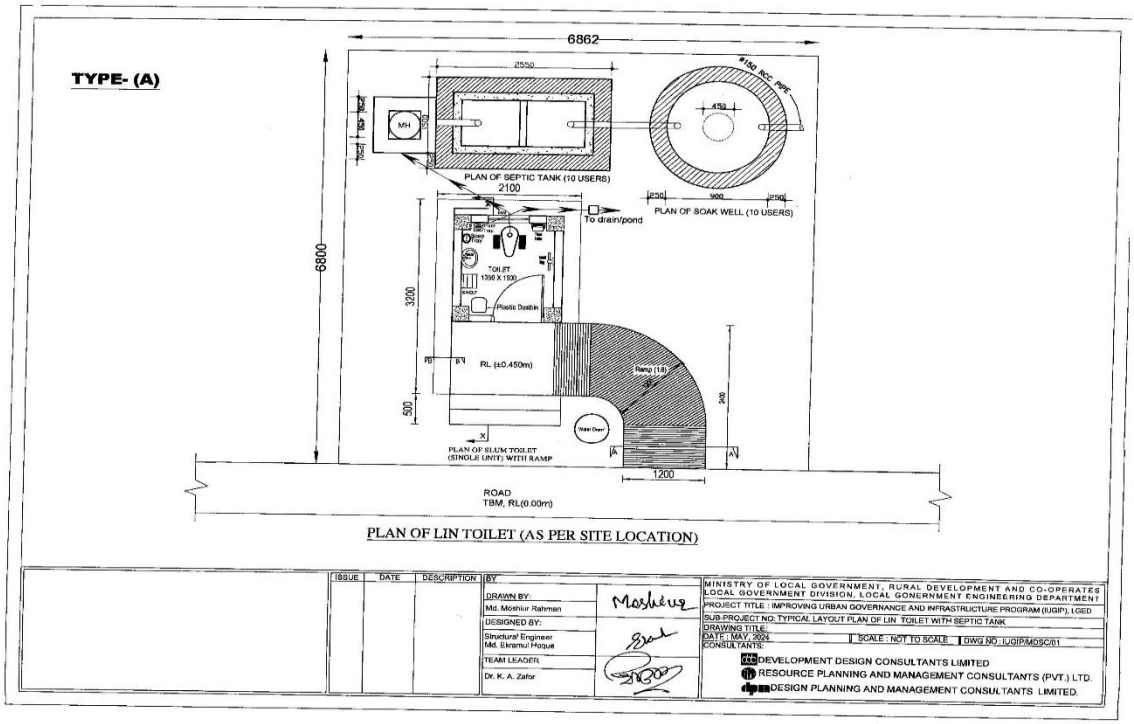


Figure: Cross-section of single unit toilets

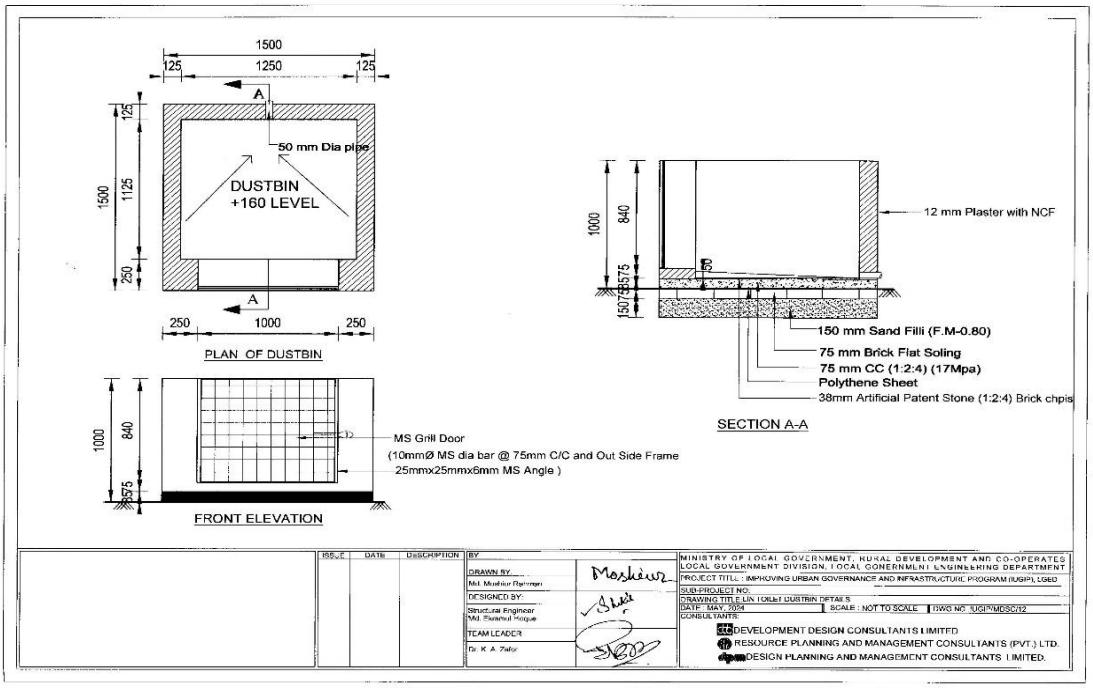


Figure: Cross-section of single unit toilets

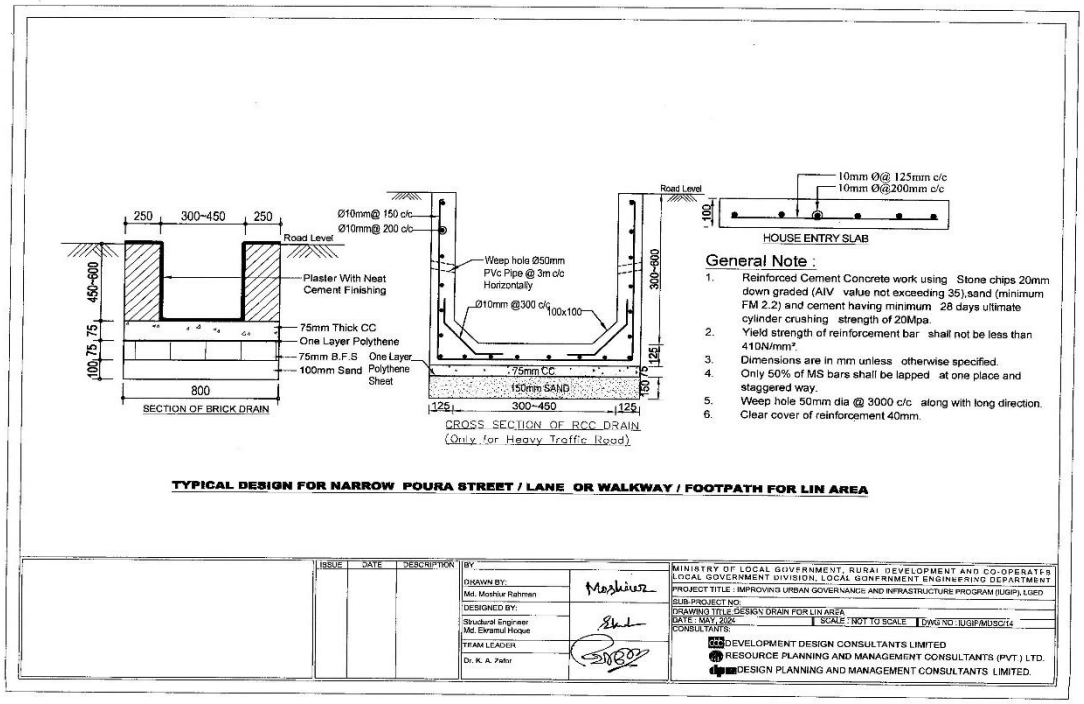


Figure: Cross-section of drain

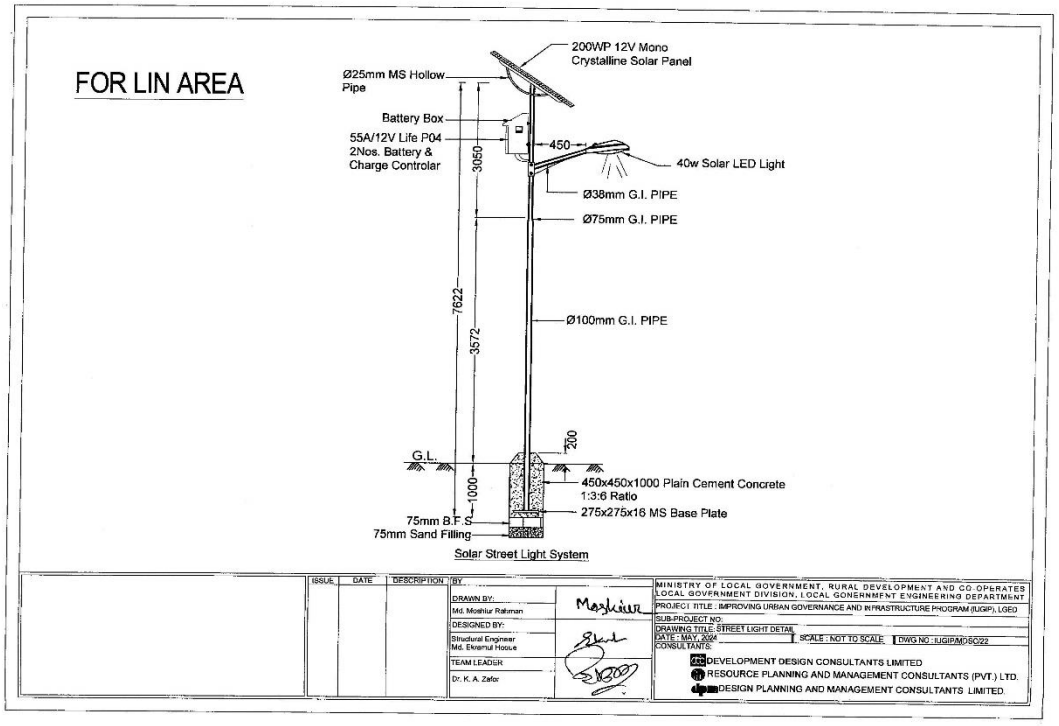


Figure: Cross-section of street lights

Appendix 3: Standard Operation Procedure (SOP) of toilet

The stability and integrity of the sanitation system will be monitored periodically to detect any problem and allow remedial actions if required. Any repairs will be small scale involving manual, temporary and short-term works involving regular checking and recording of performance for sign of deterioration, service and replace of parts. Operation and maintenance of the toilets and tube wells will be the responsibility of the SIC-

- Clean and functioning the latrine/tube well regularly by SIC selected person as per guidelines of slum improvement activity.
- Whether pan is dry then makes it watery before use.
- After defecation more or less two liters of water has to flow into the pan. Human excreta should not attach with the pan.
- Maintain sanitary bins (waste bin) to keep used toilet tissue or other waste
- Maintain electricity supply, light, switch and tap
- Maintain bleaching powder to reduce bad odor regularly and financed by slum dwellers (users).
- Maintain sludge cleaning of toilet as per necessary by SIC
- Except water any hard/soft materials should not be thrown into the pan.
- Smoking is strictly prohibited into the latrine.
- After using the latrine, it has to clean properly. Jar and Mug has to keep in proper place.
- An adolescent or a woman has to go with the child when child will go for using the toilet. After the child defecation woman has to wash it properly.
- Train the slum dwellers to use the toilet/tube well properly by SIC
- To build up awareness among the slum dweller about maintenance of toilet/tube well

Appendix 4: Standard Operation Procedure (SOP) of street light

Solar lighting systems are generally installed in slum area. It is important that all essential tools (crews, ladder, brush, cable, tapes etc.), spares and consumables have to keep ready by SIC for proper operation and maintenance of solar street light. SIC or SIC suggested person will be responsible for O&M of solar systems-

- Clean solar panel from dust, birds dropping etc. Use clean water and avoid hard water, per week
- Maintain ladder or suitable equipment for cleaning the panel per week.
- Observe battery state of charge using hydrometer per week
- Check electrolyte level of battery and top up if required.
- Change/replace of battery as per necessary by authorized venders
- Inspect all terminals for corrosion and loosened cable connections, clean and tighten as per necessary.
- Inspect panel for broken modules. If any, replace it with appropriate module as per necessary
- Check panel wiring for physical damage and wind chafing
- Inspect inverter - remove dust or dirt, inspect system wiring for poor connections. Look for signs of excessive heating, inspect controller for proper operation
- Visually check all conduit and wire insulation for damage
- Visually check for loose, broken, corroded, or burnt wiring connections.
- Visually check for broken of lamp post

Appendix 5: Photographs and participation list of public consultation

Photographs of Focus Group Discussion (FGD) for the sub-project of Pourashava are given below:

Consultation with Pourashavas staff s and local community at Tungipara Pourashava

Improving Urban Governance and Infrastructure Program (IUGIP)

Focus Group Discussions (FGD) for Social and environmental Safeguard

Name of Pourashava: Tungipara Pourashava. District: Gopalgonj

Location: World Council Office Ward No: 09

Meeting Date: 02 April, 2024 Time: 11:00 AM

List of Participants

SL	Name	Mobile Number	Occupation	Signature
01		01995383435		
02		01912268597		
03				
04				
05				
06		01581313937		
07				
08				
09				
10				
11				
12				

Summary of outcomes at Public consultation meeting: As per discussion and feedback from the SDO, Pourashava officials and SIC members, the slums were selected through consultation with the local leader/councilors living in the Pourashava area. According to the discussion, the participants appreciated the proposed slums improvement components, as it will improve the health and sanitation conditions of the slum which will provide positive socio-economic impact.

The significant issues and suggestions that came out during the meeting which are given below:

- Construction wastes should be dumped properly in the dumping yard.
- During construction work adequate measures should be taken to minimize the probable impact arises.
- The people will accept the temporary disturbances which may arise during construction for their better future interest.
- In order to staging and stockpiling of construction equipment and materials there is sufficient space along the space of footpath, drains, tube-well platforms, latrines, dustbins, street light and so on.
- Besides, there is no possibility of affecting any structure needing relocation by the sub-project activities. Moreover, there is no possibility of loss of livelihood, neither permanent nor temporary due to construction work and proposed development due to very short-term project.
- Locations of all the proposed components of works are fixed with the opinion of all the residence in the slums.

- Project will provide necessary safety measures and facilities to the workers during construction period.

Appendix 6: Site & design considerations to meet ESMF environmental criteria

Environmental Guidelines for Subproject site selection, planning and design		Remarks
1. Overall selection guidelines - applicable to all subprojects		
i. Comply with all requirements of relevant national and local laws, rules, and guidelines, including obtaining environmental clearance certificate (ECC) from DOE for all subprojects classified as green/ yellow/orange/ red per Bangladesh Environmental Conservation rules 2023		-
ii. Comply with all requirements of ADB SPS 2009 and follow procedures set in this environmental assessment and review framework (ESMF)		-
iii. Ensure that subproject design should reflect inputs from public consultation		
iv. Avoid locations in forests, mangrove areas, estuaries, buffer zones of protected areas	i. Check and confirm the eligibility through exclusion criteria before proceeding further on such sensitive sites ii. if eligible, and unavoidable: - Approval from concerned authority -Alternative site analysis to justify site selection -confirm via detailed baseline and impact assessment that the project will not lead to significant impacts on respective areas -EMP to include measures to avoid, minimize, mitigate impacts, and monitoring actions to confirm mitigation	
v. Avoid locations within 100 m of protected monuments/sites protected by department of archeology, government of Bangladesh vi. Avoid locations within 1 km of UNESCO notified protected monuments / world heritage sites 10.	If unavoidable - conduct site screening by heritage expert, and conduct heritage assessment study if warranted; integrate recommendations into design, construction, and operation -ensure that no damage / disruption to such places/monuments -obtain necessary clearance and permissions -EMP to include measures to avoid destruction / disturbance of such places -Provide "chance find" procedures in the EMP that include a pre-approved management and conservation approach for materials that may be discovered during project implementation.	
vii. Avoid tree-cutting where possible. Retain mature roadside trees which are important/valuable or historically significant. If any trees will have to be removed, plant two new trees for every one that is lost. viii. Preference shall be given to planting indigenous or local tree species.	For any tree to be cut, consider replacement of 2:1.	
ix. Ensure all planning and design interventions and decisions are made in consultation with local communities and include women. Reflect inputs from public consultation and disclosure for site selection.	All consultations should be documented, and concerns expressed by public addressed in IEEs.	
x. Synchronize all road improvement and pipe laying works (to extent possible) to minimize disturbance and optimize use of resources (e.g., water pipes laid prior to road improvements).	Coordinate planning of works with *Pourashavas*.	
xi. If subproject includes existing facilities to be rehabilitated or expanded and/or associated	For non-compliances, provide corrective action for each area of concern including cost and schedule to be included in the subproject EMP.	
xii. Locate all new facilities/buildings at sites where there is low risk of flooding or other hazards that might impair functioning of or present a risk of damage to water treatment plants, tanks/reservoirs, or their environs.	Flood statistics data of the project area needs to be reviewed. Location restriction may be reviewed depending on site availability, and flood or other hazards	
2. Infrastructure in low-income neighborhoods		

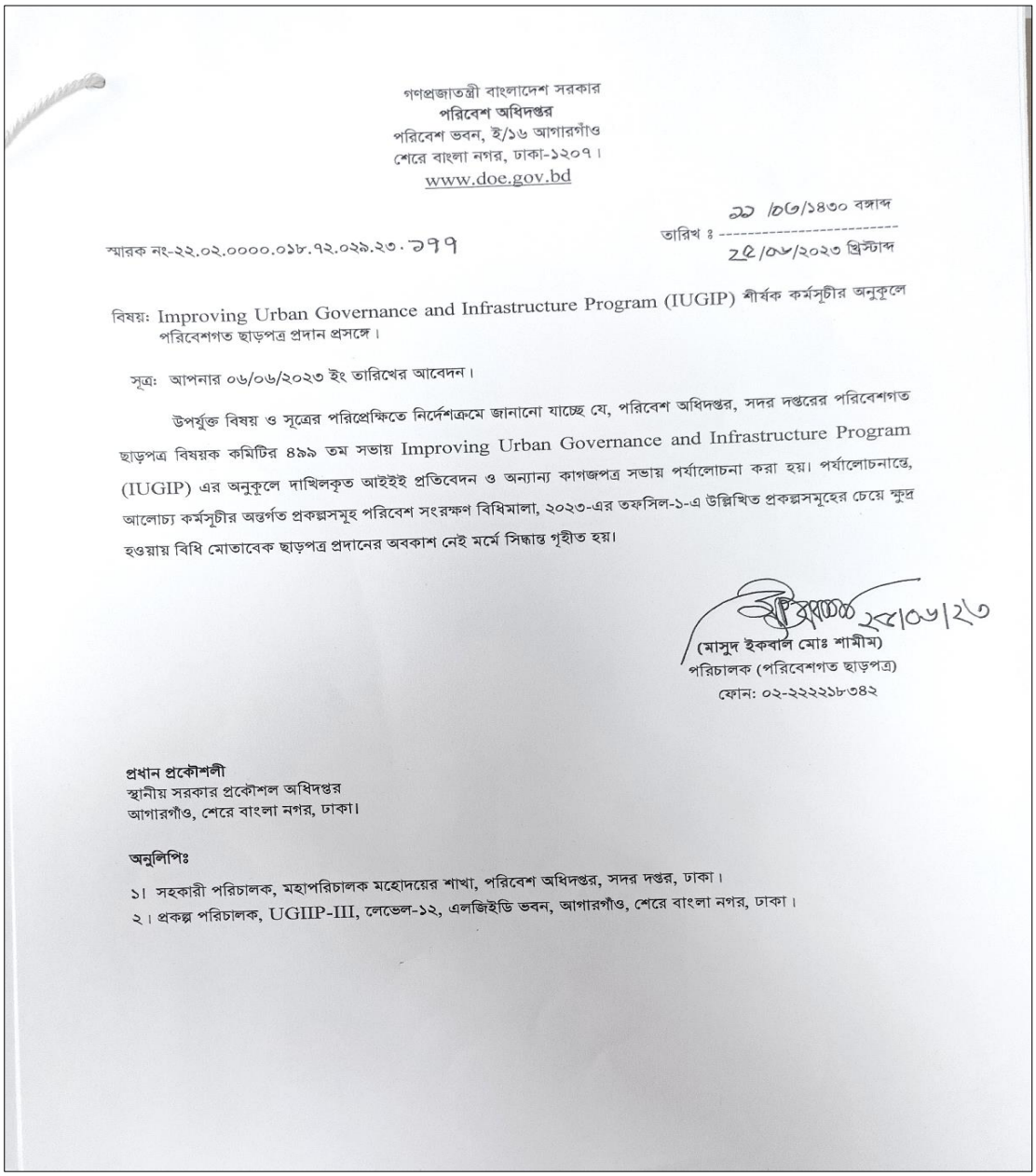
Environmental Guidelines for Subproject site selection, planning and design	Remarks
i. Include measures to address additional sewage/domestic wastewater due to improved/new water supply system	
ii. Project design to address health and safety hazards to workers from handling and management of disinfection chemicals (such as chlorine), and other contaminants, and biological and physical hazards	
iii. Sanitation. Ensure toilets are a provided with water supply and power supply for hygienic, safe, and uninterrupted	
iv. Sanitation. Design toilet as leak proof, and connect outlet to a community sewer (if available) or to a septic tank (water sealed)	
v. Sanitation. Design septic tanks as water sealed compartments to avoided contamination of groundwater/land	
vi. Sanitation. Locate septic tanks where there is proper access to a mobile suction hose equipment to allow removal of contents periodically for further treatment and disposal	
vii. Sanitation. Locate sanitation facilities (public toilets and septic tanks) preferably (a) 20 m from any source of water supply; (b) 30 m from drainage lines and (c) 100 m to a designated waterway.	Distance restriction may be reviewed depending on the technology adopted for the sanitation facilities and treatment of septage, site plant availability, and buffer
iii. Sanitation. Ensure septage collection system is fully mechanized; prohibit manual collection	
ix. Sanitation. Do not locate septic tanks where there is risk of hazards such as floods, landslides etc.,	
x. Sanitation. Ensure no immediate drinking water intakes downstream of discharge point of effluent from sanitation facilities	Include design measures and consider relocating existing deep tube wells.
xi. Sanitation. Hazardous working conditions in some places of the facility due to lack of oxygen and flammable nature of methane emissions will be detrimental to the health and safety of workers and facility. Put in place standard operating procedures with appropriate equipment, and workers are provided with necessary training and personnel protection equipment to safeguard health and safety	

Appendix 7: Waste management plan for LINICs up-gradation

Aspect	Waste type	Classification	Proposed reuse/Recycling/Disposal	Responsible
Demolition/site clearing	Vegetation (logs, mulched timber, weeds)	General solid waste (organic)	- Recycling/Disposal whereas applicable	Pourashava/SIC
	Concrete, asphalt and gravel	General solid waste (in-organic)	- Recycling/Disposal whereas applicable or where suitable and approved by PIU	Pourashava/SIC
	Metal waste	General solid waste in-organic)	Recycling	Pourashava/SIC
Earthworks	Excavated soil	General solid waste	- Beneficial reuse onsite. Balance cut and fill earthworks, where possible, to optimize reuse.	Pourashava/SIC
Construction of -Footpath -Drain -Dustbin -Street light -Toilets and -Tube Wells	Steel Reinforcing	General solid waste (in-organic)	Recycling	Pourashava/SIC
	Pipes/PVC pipes	General solid waste (in-organic)	Disposal/ Recycling	Pourashava/SIC
	Concrete (solids and washouts) and asphalt	General solid waste (in-organic)	Disposal/Re-use	Pourashava/SIC
	Timber/Steel formwork	General solid waste (in-organic)	Re-use	Pourashava/SIC
	Packaging Materials,	General solid waste (in-organic/organic)	Disposal/ Re-use	Pourashava/SIC
	Empty oil and other	General solid waste (in-	Disposal/ Re-use	Pourashava/SIC

	drums	organic)		
	Metals and electrical cabling	General solid waste (in-organic)	Recycling	Pourashava/SIC
Compounds /construction camps	Waste generated by the maintenance of equipment, vehicles	General solid waste (in-organic)	Disposal/ Recycling/Disposal where as applicable	Pourashava/SIC
	Construction /labor camp waste generated by workers	General solid waste (organic)	Disposal	Pourashava/SIC
Site Office Operation	Paper, cardboard and plastic	General solid waste (in-organic)	Recycling/ Disposal	Pourashava/SIC
	Glass bottles and aluminum cans	General solid waste (in-organic)	Recycling	Pourashava/SIC
	Ink Cartridges	General solid waste (in-organic)	Recycling/ Disposal	Pourashava/SIC
	Food Waste	General solid waste (in-organic)	Disposal	Pourashava/SIC

Appendix 8: Approved DoE letter for IUGIP



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২৫/০৬/২০২৩ খ্রিস্টাব্দ

বিষয়: Improving Urban Governance and Infrastructure Program (IUGIP) শীর্ষক কর্মসূচীর অনুকূলে পরিবেশগত ছাড়পত্র প্রদান প্রসঙ্গে।

সূত্র: আপনার ০৬/০৬/২০২৩ ইং তারিখের আবেদন।

উপর্যুক্ত বিষয় ও সূত্রের পরিপ্রেক্ষিতে নির্দেশক্রমে জানানো যাচ্ছে যে, পরিবেশ অধিদপ্তর, সদর দপ্তরের পরিবেশগত ছাড়পত্র বিষয়ক কমিটির ৪৯৯ তম সভায় Improving Urban Governance and Infrastructure Program (IUGIP) এর অনুকূলে দাখিলকৃত আইইই প্রতিবেদন ও অন্যান্য কাগজপত্র সভায় পর্যালোচনা করা হয়। পর্যালোচনান্তে, আলোচ্য কর্মসূচীর অন্তর্গত প্রকল্পসমূহ পরিবেশ সংরক্ষণ বিধিমালা, ২০২৩-এর তফসিল-১-এ উল্লিখিত প্রকল্পসমূহের চেয়ে ক্ষুদ্র হওয়ায় বিধি মোতাবেক ছাড়পত্র প্রদানের অবকাশ নেই মর্মে সিদ্ধান্ত গৃহীত হয়।

২৫/০৬/২৩
(মোসুদ ইকবাল মোঃ শামীম)
পরিচালক (পরিবেশগত ছাড়পত্র)
ফোন: ০২-২২২২১৮৩৪২

প্রধান প্রকৌশলী
স্থানীয় সরকার প্রকৌশল অধিদপ্তর
আগারগাঁও, শেরে বাংলা নগর, ঢাকা।

অনুলিপিঃ
১। সহকারী পরিচালক, মহাপরিচালক মহোদয়ের শাখা, পরিবেশ অধিদপ্তর, সদর দপ্তর, ঢাকা।
২। প্রকল্প পরিচালক, UGIIP-III, লেভেল-১২, এলজিইডি ভবন, আগারগাঁও, শেরে বাংলা নগর, ঢাকা।