

OPERATION FOR SUPPORTING RURAL BRIDGES (SupRB)

**Local Government Engineering Department (LGED), Local Government Division, Ministry
of Local Government, Rural Development and Cooperatives
Government of the People's Republic of Bangladesh**

Program-for-Results (PforR)

ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT (ESSA)

Prepared by The World Bank

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EXECUTIVE SUMMARY

The Government of Bangladesh (GoB) has undertaken rural bridges maintenance program (the program) to sustain and enhance the rural connectivity through construction of new bridges and reconstruction, rehabilitation and maintenance of the existing bridges. The World Bank's proposed support to the program would consist of a US\$ 393million (equivalent) operation using the PforR instrument (the Program). The Program will cover the following activities for bridges on Upazila Roads (UZRs) and Union Roads (UNRs): (i) Maintenance of bridges (both major and minor) and rehabilitation of bridges; (ii) capacity expansion of bridges that are detrimental to the efficient operation of the UZR and UNR networks and pose serious safety threats to vehicle operations; (iii) replacement of bridges that have passed their economic lives. The Program will include some new bridges (below 100m length). However, the Program will not undertake the following bridge construction and maintenance activities: (i) that has significant and irreversible social and environmental impact; and (ii) those are located in environmentally sensitive areas (e.g. national parks).

The Environmental and Social Systems Assessment (ESSA) provides a comprehensive review of relevant government systems and procedures that address environmental and social issues associated with the program. The ESSA describes the extent to which the government environmental and social policies, legislations, program procedures and institutional systems are consistent with the six 'core principles set out in the World Bank Policy for Program for Results Financing (November, 2017) and the associated Interim Guidance Note (June 2012). The Assessment recommends actions to address the gaps and to enhance performance during Program implementation.

The assessment team used various approaches to review the environment and social systems that are relevant to supporting the rural bridges maintenance program. It included analysis of information/ data on previous assessments and reports on the status of different aspects of its management of environmental and social issues and national consultations with all key stakeholders related to the program. The ESSA identified the potential risks, opportunities and analyzed the compatibility of the program with respect to the core principles of PforR operations. Overall, the ESSA found that the program is compatible with the core principles of PforR. However, ESSA recommends addressing institutional capacity constraints and gaps across a range of environmental and social management system limitations. These recommendations are summarized as actions and incorporated in the Program Action Plan (PAP) and has been agreed with the borrower. Specific recommendations were made to address the identified risks, gaps/challenges and needs. These measures for improvement of the environmental and social management system (ESMS) have been discussed with the implementing agencies.

Measures to strengthen system performance for environmental and social management

Objectives and issues	Measures for strengthening systems performance
<p>Environment and Social Management Instruments</p>	<p>The Environment and Social Management Framework (ESMF) developed by LGED for their overall bridge program is deemed adequate to address the social and environmental risks of the proposed Supporting Program of Rural Bridges (SupRB) under PforR financing (the Program).</p> <p>LGED will prepare site specific Environmental and Social Impact Assessment (ESIA) along with the environmental and social management plans (ESMP) following the ESMF for LGED's overall bridge program. The ESMP includes EMP, Resettlement Action Plan (RAP) and Tribal Peoples Development Plan (TPDP), as required for civil works packages.</p> <p>The ESMPs will be prepared at the design stage for individual works packages and the RAP/TPDP will be implemented before start of civil works on site, while the EMP will be followed for implementation level activities.</p> <p>LGED will ensure preparation and implementation of ESMPs and the independent monitor will review compliance on a quarterly basis.</p>
<p>Strengthen institutional capacity for safeguards management</p>	<p>LGED does not have a separate environmental and social unit with dedicated staff for overseeing tackling social and environmental activities. Under the current program, with bridge construction, rehabilitation and maintenance activities, there will be increased requirement of environmental/social risks mitigation support, which will be difficult to handle without a permanent environmental and social unit setup with dedicated environmental/social experts.</p> <p>LGED will, therefore establish an Environmental and Social Management Unit (ESMU) or its equivalent for supporting environmental and social issues in LGED projects/programs, including SupRB. The ESMU will have dedicated environmental and social specialists to monitor safeguard activities of SupRB. The number of specialists appointed by LGED will be proportional to the requirement or workload in different regions.</p> <p>LGED will form and operate an ESMU at its HQ with appropriate staffing for the Program and establish it within LGED by July 31, 2019. While ESMU or its equivalent is established within LGED, a similar team will be appointed for the SupRB.</p>
<p>Capacity building and training</p>	<p>It is recommended that LGED continue its capacity building initiatives for implementing, monitoring and evaluation of safeguard measures under the SupRB. LGED is providing relevant training to its staffs at the</p>

Objectives and issues	Measures for strengthening systems performance
	<p>grassroots level in its existing World Bank-supported projects. For example, LGED Executive Engineers and Assistant Engineers at the district and <i>upazila</i> level have received training on monitoring and managing social and environmental risks under RTIP-II. However, experience suggests that there are gaps in implementation of social and environmental risk monitoring and management measures. Therefore, there is need for continued capacity building initiatives especially to the staff at the grassroots level. The requirement for capacity building is also emphasized in the ESMF for the bridge program.</p> <p>LGED will continue specific training on environmental and social management at the SupRB implementation level as proposed in the program ESMF. Activities for gender mainstreaming, communications and citizen engagement as per the program ESMF will be given special attention in all training and capacity building activities. A budget for capacity building initiatives for the project staff including occupational health and safety (OHS) training of workers of the civil works contractors will be allocated during Program design.</p> <p>The capacity building initiatives will be monitored for number of training activities organized, number of project staff trained and number of project staff benefited from the training.</p>
Inclusion and gender mainstreaming	<p>LGED has developed a gender equality strategy in 2014 for its regular operations. Program design has taken this strategy, as well as other gender related evidence into consideration and use all-inclusive consultative process in design and implementation.</p> <p>LGED will establish a strong monitoring system in the form of participation plan and GRM under Upazila Engineer, LGED. XEN, LGED at the District level will be responsible for its supervision.</p> <p>The monitoring system will be established at <i>upazila</i> and district levels before mobilization of the civil works contractors and continue over the period of subproject implementation.</p> <p>The Program will endeavor to fill this gender gap by employing women in high skilled positions to be recruited under the operation. These high skilled jobs include roles such as engineers, technicians, consultants and other relevant positions in LGED. The target is set at employing women in 20 percent of all high-skilled positions.</p>
OHS	LGED will appoint a third party (national or international development organizations like BRAC, ILO) to help building LGED's capacity on

Objectives and issues	Measures for strengthening systems performance
	Occupational Health and Safety (OHS) (in addition to labor rights and gender issues) by: (a) supporting the government in the formulation of OHS policies, guidelines, awareness materials etc.; (b) supporting LGED in the dissemination activities, especially linked to OHS related achievements; (c) providing hands-on support to LGED in managing OHS during civil works implementation.
Child labor management	<p>LGED will not allow use of child labor as restricted in local law and as per International Labor Organization (ILO) convention on worst form of child labor¹. LGED, in its contractual documents with civil works contractors will make specific mention that children under the age of 18 may not be employed in project works that is likely to be hazardous or be harmful to the child's health or physical, mental, spiritual, moral or social development. An appropriate risk assessment will be conducted, together with regular monitoring of health, working conditions and hours of work where child labor will be employed. Upazila Engineer, LGED along with his team would monitor strict compliance of the issue at the construction sites and XEN at the District level supervise.</p> <p>Standard signboard at the worksites will be displayed within a week of mobilization of contractor(s) warning for child labor restrictions including age, form of work and working hours for children.</p> <p>A third-party will be employed under the Program to monitor compliance of Child labor related laws and convention.</p>
Labor influx management and GBV	<p>Since there will be no new construction of large bridges, major labor influx is not expected to be a significant issue. However, contractors will have to develop site-specific measures and a working plan for labor management (LMP) approved by LGED before the work starts and update them whenever necessary. This labor management plan (LMP) will be explicit about child labor and GBV at works sites.</p> <p>LGED will thus ensure that contractors develop site-specific LMPs and deploy relevant personnel resources before the work starts and update the LMP whenever necessary. Local community, including marginalized, vulnerable and indigenous community and other stakeholders will be consulted while preparing and updating the LMPs.</p> <p>Bidding documents will thus be revised to reflect specific costs for OHS, environmental management and social management in the BoQ. Plus, contract documents for civil works under the Program will include</p>

¹ C182 - Worst Forms of Child Labour Convention, 1999 (No. 182).
http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C182

Objectives and issues	Measures for strengthening systems performance
	<p>specific clauses on labor influx management, child labor restrictions and handling GBV related issues, including the need to develop labor management plans (LMPs) as indicated above.</p> <p>Specifically, LGED will ensure the following (by incorporating these in the contractual documents and through physical monitoring):</p> <ul style="list-style-type: none"> • Contractors will be encouraged to employ unskilled workers from the bridge vicinity as much as possible; • Labor sheds will be constructed near the work sites so that presence of migrant workers does not adversely affect the local community and their way of living; • Undertake mandatory and repeated training and awareness program for the workforce at site on LMPs. • Inform the local law enforcers and encourage them to participate in the training on LMP to demonstrate government authority at the work sites; • Adequate measures for gender friendly work place environment will be taken at all works sites and at the labor sheds; • Ensure to address OHS issues at works sites inclusive of all workers by gender, age and ethnicity and ensure availability and use of personal protective equipment; • Ensure firefighting and first aid facilities at the work site and identification and coordination with ambulance services and hospitals for quick evacuation at the events of worksite accidents; • Display important telephone contacts like local emergency services in billboards at the work site and labor shed; • Access and make use of GRM for any issues of labor influx management for misconduct, illicit behavior, drug abuse and other social crimes etc. in coordination with the local law enforcing agencies, where required; and • In contracts higher than BDT 40 million (US\$ 500k), deploy site specific Community Coordinators adequately trained for facilitating social management addressing issues like labor influx, child labor, gender based violence and grievance resolution. <p>Besides, a strong monitoring system targeting labor management and GBV issues will be established by LGED under the Program including the engagement of a third-party monitor (cf. below) and the creation and</p>

Objectives and issues	Measures for strengthening systems performance
	operation of a Grievance Redress Mechanism (GRM) for settlement of labor related complaints and grievances including GBV.
Third party monitoring	<p>LGED will appoint a third party (national or international development organizations or Non-Government Organizations – ex: Bangladesh Rural Advancement Committee, ILO) to monitor field-level implementation of environmental and social mitigation measures including voluntary land donation matters, labor influx, occupational safety and health, gender based violence and child labor restrictions.</p> <p>The third-party monitor will be engaged in the second year of Program implementation.</p>

ACRONYMS AND ABBREVIATIONS

ADB	- Asian Development Bank
DLI	- Disbursement-linked indicator
DoE	- Department of Environment
DP	- Development Partner
EA	- Environmental Assessment
ECA	- Environmental Conservation Act
ECC	- Environmental Clearance Certificate
ECNEC	- Executive Committee of the National Economic Council
ECR	- Environment Conservation Rules
ESSA	- Environmental and Social Systems Assessment
ESMF	- Environmental and Social Management Framework
ESMU	- Environmental and Social Management Unit
FGDs	- Focus Group Discussions
GoB	- Government of Bangladesh
IMED	- Implementation Monitoring and Evaluation Division under Ministry of Planning
LGD	- Local Government Division
LGED	- Local Government Engineering Department
LMP	- Labor Management Plan
MLGRD&C	- Ministry of Local Government, Rural Development and Cooperative
MoLE	- Ministry of Labor and Employment
MSC	- Management Support Consultant
OHS	- Occupational Health and Safety
PAP	- Program Action Plan
PDO	- Program Development Objective
PforR	- Program-for-Results
RAP	- Resettlement Action Plan
SIA	- Social Impact Assessment
SupRB	- Operation for Supporting Rural Bridges
TPDP	- Tribal Peoples Development Plan
UE	- Upazila Engineer

UGRC	- Upazila Grievance Redress Committee
UZR	- Upazila Roads
UNR	- Union Roads
WB	- World Bank
XEN	- Executive Engineer

SECTION I: INTRODUCTION

1.1 Background and Context

1. Huge investments since the 1980s saw a rise and expansion of rural roads in Bangladesh. The Rural Access Index (RAI) figure for Bangladesh has been found to be approximately 87% and it country tops among eight countries in Asia and Africa where a recent study. RAI provides the proportion of people who have access to all-season roads within an approximate walking distance of 2 kilometers. The total road network size of the country is roughly 375,000 km. This is equivalent to a road density of approximately 250 km per 100 sq. km. This road density is substantially higher than the density of other South Asian countries including India (160 km per 100 sq. km), Nepal (54 km per 100 sq. km) and Sri Lanka (150 per 100 sq. km.). The total rural road network comprises just over 350,000 km (94% of the network). Upazila Roads (UZRs) and Union Roads (UNRs) composed of respectively 11% and 12% of the rural road network. However, Bangladesh needs to move away from widespread expansion of connectivity through the construction of rural roads to consolidation of the connectivity gains already made through huge investments since the 1980s. Bridges play an important part in Bangladesh's land transport system. Many rivers and their tributaries given the country's geography, a large flat land, crisscross this. More often than not, a bridge connects two separate road sections to provide full connectivity to isolated rural communities. Requirements for bridges in Bangladesh are huge. The current available inventory suggests that a bridge is required for every 4.5km of upazila and union roads. Four-fifths of these gaps now have structures, leaving a fifth of them to be bridged. A back-of-the-envelope calculation suggests that total resource requirements for bridging only these gaps will require more than US\$ 2.0 billion.

2. The total replacement value of rural bridges and culverts is roughly US\$ 6.5 billion. This figure is approximately 2.6% of the Bangladesh's 2017 Gross Domestic Product (GDP). An analysis of the currently available data provides some of the main features of bridges on upazila and union roads: (i) Approximately two thirds (69%) of the bridges have conventional traditional T-beam Reinforced Cement Concrete (RCC) structures; (ii) A majority (63%) of rural bridges have short-span length (below 20m); (iii) The majority of the bridges were built after mid-1990s. The average age of an existing bridge is 19 years; (v) While just over two-fifths of the rural bridges are between 10 and 20 years old (which potentially need major maintenance), a quarter of the bridges are over 25 years old (they either need major rehabilitation or need to be replaced); and (vi) There exist many narrow bridges (<5m width) and they would require to be widened or replaced to cope with the increased traffic volume.

3. The proposed Program directly contributes to priorities set under the Country Partnership Framework (CPF) for FY 2016-2020. The CPF is aligned with the Government's 7th Five Year Plan and follows the same planning timescale (FY 2016-20). The framework has three focus areas—growth, social inclusion, and climate and environmental management. The CPF has identified the creation of more and better jobs as the main challenge Bangladesh has been facing as a nascent middle-income-country. Therefore, the CPF focuses on removing stubborn impediments to job creation and growth. The Systematic Country Diagnostic (SCD), which underpins the CPF preparation process, has identified five transformational priority areas where concerted efforts would produce the highest returns for achieving sustainable growth and creating jobs. One of the five transformational areas is

the inland connectivity. The CPF has resolved that in order to remove the stubborn impediments to job creation and growth, the Bank will shift more financing towards energy and transport infrastructure. An assessment of the previous Country Assistance Strategy (FY 2011-14) outcome has identified the inadequate preservation of assets, including the maintenance of rural roads, remained the main challenge in the road sector.

4. The proposed operation for supporting program for rural bridges (SupRB – the Program) is designed under Program-for-Results (PforR) financing instrument. The Program will support LGED's rural bridges maintenance activities only on upazila and union roads, as well as rehabilitation, capacity expansion and replacement of existing bridges. The Program will cover the following activities: (i) Maintenance of bridges (both major and minor) and rehabilitation of bridges; (ii) capacity expansion of bridges that are detrimental to the efficient operation of the UZR and UNR networks and pose serious safety threats to vehicle operations; (iii) replacement of bridges that have passed their economic lives. The Program will include new bridges (total length of less than 100m). However, the program will not take the activities: (i) which have significant social and environmental impact; (ii) activities in environmentally sensitive areas (e.g. national parks).

1.2 Executing Agency of the Program

5. The Government of Bangladesh (GoB) intends to enhance the rural connectivity through construction of new bridges and reconstruction, rehabilitation and maintenance of the existing bridges. The Local Government Engineering Department (LGED) will implement the Program in about 61 districts of Bangladesh. LGED is the premiere public-sector organization of Bangladesh under the Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperatives (LGRD&C).

1.3 Objectives of ESSA

6. The ESSA provides a comprehensive review of relevant government and the agency's systems and procedures that address environmental and social issues associated with the Program. The ESSA describes the extent to which the government environmental and social policies, legislations, program procedures and institutional systems are consistent with the six 'core principles' set out in the World Bank Policy for Program for Results Financing (November 2017) and the associated Interim Guidance Note (June 2012). The assessment recommends actions to address the gaps and to enhance performance during Program implementation. The six core principles are the following:

- **Core Principle 1:** General Principle of Environmental and Social Management. This core principle aims to promote environmental and social sustainability in Program design; avoid, minimize, or mitigate adverse impacts, and promote informed decision-making relating to the Program's environmental and social impacts.
- **Core Principle 2:** Natural Habitats and Physical Cultural Resources. This core principle aims to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program.

- **Core Principle 3:** Public and Worker Safety. This core principles aims to protect public and worker safety against the potential risks associated with: (i) construction and/or operation of facilities or other operational practices under the Program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program; and (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.
- **Core Principle 4:** Land Acquisition. This core principle aims to manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assist affected people in improving, or at the minimum restoring, their livelihoods and living standards.
- **Core Principle 5:** Small Ethnic and Vulnerable Communities (a terminology used by the GoB as it does not use the term “Indigenous Peoples”). This core principle aims to give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of the small ethnic and vulnerable communities (tribal people) and to the needs or concerns of vulnerable groups.
- **Core Principle 6:** Social Conflict. This core principle aims to avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

7. Specific objectives of ESSA are to:

- Review the existing environmental and social management systems applicable to the Rural Bridges Program;
- Review the national policy and legal framework related to management of environmental and social impacts of the transport sector interventions;
- Review and assess the institutional capacity of LGED for environmental and social impact management within the Program system;
- Review and assess the Program system performance in with respect to the core principles of the PforR instrument and identify gaps in the Program’s performance;
- Recommend actions to improve the performance of existing systems with respect to national requirements and the core principles of the PforR instrument.

1.4 Methodology

8. The assessment team used various approaches to review the environment and social systems that are relevant to the rural bridges program of LGED. The ESSA was developed based on: (i) a review of existing policies, development plans, legal and regulatory framework and guidelines of the international development financing institutions working with LGED; (ii) meetings and interviews with different stakeholders including LGED and relevant other agencies those are involved in environmental social, health, safety and labor issues in development projects; (iii) an assessment of relevant environmental and social management systems relative to the PforR principles; iv) an assessment of the capacity and performance of LGED relative to their own procedures and processes; (v) development of an action plan to enhance environmental and social management capacity and performance; and (vi) development of performance monitoring and implementation

support program. The formulation of the ESSA will be informed by a consultative process involving key national and local stakeholders.

9. The ESSA reviews the proposed Program activities to evaluate its effects on the environment and potentially affected people. Risks identified through the ESSA are addressed through the results area, or through disbursement-linked indicators (DLI). This operation has considered environmental and social risk mitigation measures in the Program Action Plan (PAP) and identified options to improve systemic implementation and strengthen institutional capacity of LGED.

SECTION II: DESCRIPTION OF THE RURAL BRIDGES PROGRAM

2.1 Program Development Objectives of the Proposed Program

10. The Program Development Objective is to enhance rural connectivity, to improve the preservation and climate resiliency of rural bridge assets, and to strengthen institutional capacity for the development, maintenance and management of rural bridge assets. This will be achieved through the maintenance, capacity expansion or replacement of existing rural bridges, the construction of rural bridges on existing gaps and taking measures for enhancing capacities for planning, implementation and management of rural bridge activities. The following four indicators will serve to measure the PDO's achievement:

<i>PDO level result</i>	<i>PDO level indicator</i>
Preservation of rural bridges	<u>PDO 1</u> : <i>upazila</i> or <i>union</i> road bridges that are in good and fair condition
Improved climate resiliency	<u>PDO 2</u> : <i>upazila</i> or <i>union</i> road new bridges built or replaced with climate resilient features in 19 coastal districts
Improved rural connectivity	<u>PDO 3</u> : Length of severed or constrained <i>upazila</i> or <i>union</i> road links made fully operational
Institutional capacity strengthening and gender	<u>PDO 4</u> : Program bridges designed using in-house technical resources

2.2 Proposed Disbursement Linked Indicators

11. Following table summarizes an initial concept for Disbursement Linked Indicators and the amount of IDA financing associated with each:

<i>Item</i>	<i>Activity</i>	<i>Units and Scalability</i>	<i>Quantity</i>	<i>US\$ DLI unit rate</i>	<i>DLI allocation (mUS\$)</i>
DLI-1	Rural bridge minor maintenance	Meters (scalable)	60,000 m	700	42
DLI-2	Rural bridge major maintenance	Meters (scalable)	25,000 m	1,720	43
DLI-3	Rural bridge rehabilitation	Meters (scalable)	24,000 m	3,125	75
DLI-4	Rural bridge capacity expansion	Meters (scalable)	5,000 m	8,000	40
DLI-5	Rural bridge replacement and new construction	Meters (scalable)	20,000 m	8,150	163
DLI-6	Rural Bridge Information and Management System (RuBIMS)	Lump sum at different stages (all-or-nothing)	N/A	N/A	10
DLI-7	(a) Percentage of National Competitive Tenders’ using e-CM module of the e-GP	While (a) and (b) are scalable, (c) is all-or-nothing	N/A	N/A	3
	(b) Percentage of works contracts completed within the original contractual time line		N/A	N/A	4
	(c) Audit committee formation and resolution of audit observations		N/A	N/A	3
Subtotal for DLI - 8					10

<i>Item</i>	<i>Activity</i>	<i>Units and Scalability</i>	<i>Quantity</i>	<i>US\$ DLI unit rate</i>	<i>DLI allocation (mUS\$)</i>
DLI-8	(a) Development and operationalization of GRS	Lump sum at various stages (all-or-nothing)	N/A	N/A	5
	(b) Finalization and operationalization of smartphone-based field inspection application		N/A	N/A	5
Subtotal for DLI - 8					10
Total Value for All DLIs					393

12. The above table shows that five DLIs (DLI-1 to DLI-5) are scalable, which means that disbursements will be made against the achievement of any results subject to a maximum. However, the remaining three DLIs (DLI-6 to DLI-8) are process DLIs. Two of these DLIs, DLI-6 on implementation of RuBIMS and DLI-8 on transparency and accountability, are ‘all-or-nothing’ targets, which is considered both essential and achievable. DLI-7 on improvement of contract and financial management systems is scalable, barring an item of the same DLI that deals with the financial management, which is an ‘all-or-nothing’ target. This means that disbursements against them will only be made if the target values are achieved (no disbursements will be made against the achievement of the partial results). Bridges selected for disbursement against DLI-1 to DLI-5 will be required to meet a full list of eligibility criteria in order to qualify for disbursement. Such detailed criteria will be formulated during the Program preparation process.

13. DLI-6 to DLI-8 are process DLIs, which are necessary for the Program’s long-term sustainability. DLI-6 is linked to the development and updating the Rural Bridge Information and Management System (RuBIMS). RuBIMS will be the backbone for the planning of bridge intervention under this Program. DLI-7 is included in the Program in order to improve contract management aspects in LGED. The Association’s experience with the current and past projects in the rural transport sector is that there are huge scopes for improving LGED performance in this area. Also, this DLI will deal with the new contracting mechanism in bridge sub-sector. DLI-8 is included to improve Program’s transparency and accountability. Some aspects of this DLI might have LGED-wide impact. For instance, a Grievance Redress Mechanism developed under the Program will have LGED-wide reach.

2.3 Scope of the Program

2.3.1 Proposed Program boundary for PforR

14. **The proposed Program will cover whole of Bangladesh.** The Program activities will only be limited to bridge construction and maintenance related activities. Some minor road works linked to bridge approach roads are also envisaged, mainly, in the case of new bridges.

15. **Program exclusions:** The Rural Bridge Program will exclude bridges that, in the opinion of the Bank, are likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on the environment and/or affected people; or involve procurements beyond budgetary limits set in the program design (procurement plan).

16. The Proposed Operation **will support**

- Bridges on upazila and union roads only;

- Maintenance (minor and major) and Rehabilitation of Bridges;
- Capacity expansion (of narrow bridges) and Replacement (that surpassed their service lives) of existing Bridges;
- Construction of short and medium-span new Bridges with a total span length of less than 100m;

17. The Proposed Operation ***will not support***

- New construction of bridges equal to or above 100 meters (Category A);
- Any bridges that are likely to have significant irreversible adverse impacts on the environment and/or affected people;
- Bridges situated in National Parks and designated environmentally sensitive areas; and
- Any bridge works that will require high value contracts as defined by Bank Procedures 11.00 which describes “Mandatory Prior Review thresholds for RPMs and the OPRC”.

18. The Program will also include an institutional capacity enhancement component (IPF), which will only cover expenditures required to develop LGED’s institutional structure/capacity for creating and managing bridge assets; provide technical backstopping to improve bridge technology and to complement Government’s capacity; and most notably to prepare new rural transport sector projects or programs. The Institutional Development and Capacity Building component of the proposed Program will thus complement the implementation of bridge maintenance and construction activities under PforR.

2.4 Potential role of Development Partners in the Program

No distinct roles for the development partners are being envisaged at this point. However, discussions are on-going with the Government to assign a role to one or more development partners (e.g. Danida) in the verification of the DLIs.

2.5 Envisaged Program Duration – 5 Year Horizon

19. The PforR operation to support the Rural Bridge Program will span over a period of 5 years (hereinafter the ‘*Program support period*’). Expected to be started in September 2018 and closing on August 2023.

SECTION III: POTENTIAL ENVIRONMENTAL AND SOCIAL EFFECTS OF THE PROGRAM

3.1 Environmental Risks and Benefits of the Program

3.1.1 Potential Environmental Risks

20. The Program's activities will cover maintenance of bridges (both major and minor) as well as rehabilitation, capacity expansion and replacement of bridges of the *upazila* and *union* road networks. Construction and maintenance activities may pose some potential environmental risks which are (i) air and dust pollution (construction equipment, construction activities, construction vehicular traffic) (ii) noise pollution and vibration, (iii) surface water pollution (spills, construction waste), (iv) groundwater pollution (accidental spillage, improper sanitary systems for workers), (v) solid and liquid waste generation, (vi) drainage congestion (construction debris, encroachment of water bodies, stockpiling construction materials, diversion road over khals), (vii) road traffic congestion, (viii) disruption to boat navigation, (ix) disruption of aquatic flora and fauna including fish, etc.

21. Short to medium-span bridges will be rehabilitated/constructed over canals, small rivers most of which dry up or have very marginal flow during the dry season. Such physical intervention in a natural canal will alter its hydro-morphological regime, can cause a constriction of flow, increase surface run-off (because of more impermeable surfaces due to compaction), alter the velocity and sediment depositional pattern and eventually channel morphology. But its effect will mostly be localized around the bridge area. Possible extraction of sand and gravel and foundation works will also cause a loss of benthic flora and fauna but it is expected to be temporary and reversible. The foundation works are typically carried out during the dry season when there is little or minimal flow in the canal/river so there is less concern for the effect of vibration/noise associated with pile-driving. New bridges over major rivers which harbors sensitive ecosystems are not going to be constructed under the Program.

22. Apart from risks associated with the physical-chemical environment, construction activities also pose risk to worker and public health and safety. The construction workers will be faced with occupational health hazards such as minor or major injuries if there is lack of general safety precautions, malfunctioning equipment, careless use of equipment and vehicles etc. Poorly designed temporary camps and drinking water and sanitation facilities will pose a health threat and nuisance to the workers. Uncontrolled vending of food and drinking water on the work site will also pose a risk with respect to the transmission of contagious diseases like typhoid, diarrhea, malaria, dengue, etc. the construction workers will be required to handle hazardous materials for the construction works especially for batching plants such as cement, bitumen, paints, chemicals, fuels, diesel, etc. therefore increasing health risks of workers.

23. During construction, it will be required to remove the utilities services (electricity, telephone, water supply, internet lines) that are connected with the existing bridges and its approaches. Telephone and electricity pole that are located on the site slope of the bridge approach roads might be affected during the construction. These lines may be hazardous to the workers' as well as public health and safety during construction stage, if exposed and not previously removed.

Public hazard will also be associated with lack of directions or signage indicating construction activities, inconveniences associated with abovementioned physic-chemical risks.

24. Although the construction of bridges is not expected to impact any physical cultural resources as bridges are constructed over existing alignments of road networks, there is a possibility of "chance finds" during construction. Potential adverse effects on physical cultural property will be accounted for and adequate measures will be taken to address such effects.

25. During operation phase of the bridge, there could be impacts associated with generation of traffic and consequently increased congestion and development of temporary shops and markets in adjoining areas. Community health and safety related to traffic accidents may be an important concern in some areas.

26. However, the anticipated adverse environmental effects of the Rural Bridges Program are not expected to be significant considering: (i) the limited geographic footprint of planned works (construction/rehabilitation activities will be carried out in bridges, which are small to medium in size (<100 m)); (ii) the repair and maintenance work entails incremental physical work over existing structures; (iii) Program activities are unlikely to encroach upon or degrade sensitive habitats because the program excludes any bridges located in sensitive areas of biodiversity and (iv) Adverse environmental effects of the bridge works are likely to be temporary in nature which can be addressed through well-known mitigation measures and applying appropriate environmental codes of practices.

3.1.2 Potential Environmental Benefits and Opportunities

27. One of the areas the Program can aim to strengthen is the improvement of Occupational Health and Safety (OHS) at work sites. Analysis of existing tender documents of the contractors show that OHS is duly incorporated in the bidding documents. But implementation of the basic principles of OHS is sometimes have been found absent. At the peak of construction, it is likely to provide employment of considerable personnel and these issues cannot be overlooked. By stringent monitoring and sensitizing the contractors for adopting these codes of practice, visible changes in this area can be made.

28. The process of planning, design and implementation of these bridges will help LGED to learn best practices for the planning, design, implementation and management of bridges including the environmental risk management during construction. There are several DLIs which can potentially address environmental risks under the PforR. DLI-6 (Rural Bridge Information and Management System) can potentially address these. Capacity Building in occupational health and safety can complement bridge maintenance and constructions activities under PforR. DLI-7 (Improvement of Contract Management System and formalizing the design-build contracting) can also facilitate the incorporation of EMP in contract documents. Also, DLI-8 (Transparency and Accountability) can potentially address the field-level implementation of contractual obligations (including EMP compliance).

3.2 Social Risks and Opportunities of the Program

3.2.1 Potential Challenges and Social Risks

29. Most of the rural bridges are planned for reconstruction/rehabilitation. The Program intends to include some new bridges (short and medium-span bridges with total span of less than 100m that do not have significant environmental and social consequences). Around 9% of bridges (some 450 bridges) are proposed for new construction². All proposed bridges would connect two existing roads. Bridges on the river or canal would use government land. The approach road of the bridge would either be the existing one with enough width or in some cases some land will be required from either side of the existing road. In general, additional land is required for construction of approach road of bridges. There are some effects on agricultural land of the vicinity of approach road that are likely to be affected. These lands are mostly private land owned by the local people, who of course, will be the beneficiary of the bridge.

30. Rehabilitation and replacement of existing bridges and construction of new bridges on union and upazila roads are likely to have certain adverse social impacts in the form of temporary and permanent, physical and economic displacement of people, temporary setback in the existing communication system affecting all in a society including vulnerable group, tribal peoples, minor children and others using the bridge/living near the work site. However, with appropriate forward planning these impacts can be effectively minimized and mitigated. Adverse social impacts would be directly proportional to the size of the bridge and the duration of work. The likely social impacts/challenges and risks are covered in the below paragraphs.

31. LGED envisages designing realigning/widening/repairing/replacing existing bridges avoiding any land acquisition that would make resettlement redundant. However, pending final selection of the subprojects and finalization of the engineering designs, it is assumed that there are potentials of social risks and impact in the following forms:

- At places there would be certain requirement of acquisition and/or temporarily leasing of public and private land including farmland/orchards etc. near the work site for dumping stores, developing construction yard, workers shed, bridge abutments and approach roads.
- These at times would necessitate resettlement as short/long term effect of homesteads near the construction site could lead to uprooting locals and shifting of certain homestead built with CI sheet, timber etc. to other places and destruction of RCC made homestead, being immovable.
- The squatters who occupy public land/Khas land and have built shanty sheds for living and livelihood would also be affected.
- Adverse effect on existing businesses near the bridge site is also expected owing to destruction of temporary and semi-permanent business facilities.
- These would lead to loss of petty business and linked employments affecting the livelihood of the affected community.

² Discussion with Mr. Golam Yazdani, DPD, RTIP II and Mr. Mostaq Hossain Joarder, XEN, RTIP II, LGED HQ on July 25, 2017

- Access through the bridge/alternative approach road may impede safe movement of the elderly people or persons with disabilities.

Labor influx in the Bridge Sites

32. Challenges associated with Labor influx at the subproject sites include:

- Influx of non-local workers at works sites may put extra pressure on the local market and civic facilities. This may raise the price of daily necessities in the area adversely affecting the local population.
- There are possibilities of social rift owing to unsocial activities of some member of the labor force in the form of drug abuse, gambling and prostitution or other GBV related issues.
- Hiring of accommodation for the workers/construction related office in the locality where separate Construction Yard is not planned would put pressure on the locality.

Challenges/risks to the Society in view of the construction related activities:

33. Other challenges include some or all of the following:

- Renting of houses by the staffs and workers when separate facility at the work site is not made will have moderate risk on the local residents in the form of theft, noise and movement of unknown persons in the locality.
- Adverse effects on the crop harvested and felling of fruit bearing trees/trees with timber value near the bridge site.
- The contractors or their representatives may employ child labors at a lower wage to reduce construction cost and increase profiteering.
- Similar effect is envisaged in the TP held areas in the plains where the TPs are the minorities.

3.2.2 Potential Social Benefits and Opportunities

34. Potential social benefits and opportunities of the program are many. Some of the opportunities include:

- Improved communication network that creates more opportunities for trade and business, easy to and from movement of agro-products and other locally grown/produced goods, reduced transportation cost along with reduced time to travel, and ease the movement of pedestrians including VG, TP, elderly and the school going children.
- Unskilled labor force of the locality including women can find job at the bridge site for a prolonged period. The 'Contractual Obligations' developed by LGED HQ has made specific provision of employing at least 10 percent women in maintenance work. UE and his team should ensure compliance of the same by the contractors through regular monitoring.
- Scope of earning rent through leasing of fallow private land and vacant/unused homestead in the vicinity of the bridge site.

- More economic activities in the locality due to additional demand of daily necessities, including agro-products by the labor force and staffs at the work site.
- Overall business friendly environment will improve in the area whereby local businessmen will have more opportunities to profiteering.
- Opportunity to supply locally available construction material namely bricks, timber, sand, cement and other goods; thus, improving the quality of these products.
- Sustained interaction among various parties involved with the construction namely LGED representatives, Contractors and their representatives and the local leadership/business community of the area will act as a strong base to solve any construction related problem amicably. This would also work as an effective GRM.
- Since certain number of timber/fruit bearing trees will need to be uprooted to facilitate construction, the affected persons will have the opportunity to get compensation along with the uprooted trees that they could sell elsewhere.
- This will also create opportunity for afforestation along the bridge site once the construction is completed.

35. Potential social benefits include:

- Better road communication system for transports and pedestrians leading to ease of communication and to and from transportation of goods produced in the locality.
- Ease of access to the schools, Madrasas, Colleges etc. and hospital/healthcare centers/community clinics by the local people irrespective of age gender and religion.
- Enhanced economic activities in the area post bridge construction/rehabilitation thus improving individual earning in the locality.
- Skill development by the unskilled workers involved with construction site.
- Earning hard cash through renting vacant homestead and fallow land for the project.
- Enhancing 'Gender Mainstreaming' through creating equal opportunity as unskilled laborers for the construction site putting feasible conditions in the contract documents with the civil works contractors.
- Interest of the local community would be upheld through concerted efforts of all partners involved in bridge construction.
- Owners of the uprooted trees could benefit financially by selling the timber in addition to the compensation received from LGED.
- Businessmen and owners of properties that were made unusable (temporarily/permanently) owing to construction at the bridge site would be compensated as per rule. Besides, they would be able to take along the building material including CI sheet, timber etc. for reuse.

3.2.3 Environmental and Social Risk Ratings

36. Given the scope of the Program, its types and scale of investment, geographic focus, institutional capacity and previous experience of LGED with World Bank projects, the risk is rated moderate from the environmental and social perspectives.

SECTION IV: POLICY, REGULATORY AND INSTITUTIONAL FRAMEWORK

37. This section describes the existing environmental and social management system of the GoB along with an overview of the policy and legal framework. This includes a profile of the key institutions and their role with respect to management of environmental and social aspects of the Program. An assessment of the country environment and social management system related to Bridge Program against PforR principles and elements is provided in the following chapter (Section V)

4.1 Policy and Legal Framework

38. Bangladesh has policies, instruments and laws that support environmental and social management and the environmental and social assessment processes. The ESSA reviewed the existing regulations and policies, their legal and practical applicability at the program level as well as the institutional capacity, and the effectiveness of implementation in practice. The GoB has developed a policy framework that requires environmental issues to be incorporated into economic development planning. The Key tenets of the various applicable policies are detailed in the following sub-sections.

4.1.1 Policy and Legal Framework for Environmental Safeguard

39. The GoB's environmental laws and policies are deemed adequate for both protection and conservation of resources, although enforcement capacity needs to be improved significantly.

National Environmental Policy 1992

40. The concept of environmental protection through national efforts was first recognized and declared in Bangladesh with the adoption of the Environment Policy, 1992 and the Environment Action Plan, 1992. The major objectives of Environmental policy are to i) maintain ecological balance and overall development through protection and improvement of the environment; ii) protect country against natural disaster; iii) identify and regulate activities, which pollute and degrade the environment; iv) ensure environmentally sound development in all sectors; v) ensure sustainable, long term and environmentally sound base of natural resources; and vi) actively remain associate with all international environmental initiatives to the maximum possible extent. The policy also states that EIAs should be conducted before projects are undertaken and the DOE is directed to review and approve all EIAs.

Bangladesh Environmental Conservation Act (ECA), 1995 amended 2002

41. This umbrella Act includes laws for conservation of the environment, improvement of environmental standards, and control and mitigation of environmental pollution. It is currently the main legislative framework document relating to environmental protection in Bangladesh. The provisions of the Act authorize by the DG of DOE to undertake any activity that is deemed fit and necessary to conserve and enhance the quality of environment and to control, prevent and mitigate pollution. The main highlights of the act are:

- Declaration of Ecologically Critical Areas;
- Obtaining Environmental Clearance Certificate;

- Regulation with respect to vehicles emitting smoke harmful for the environment;
- Regulation of development activities from environmental perspective;
- Promulgation of standards for quality of air, water, noise, and soils for different areas and for different purposes;
- Promulgation of acceptable limits for discharging and emitting waste; and
- Formulation of environmental guidelines relating to control and mitigation of environmental pollution, conservation and improvement of environment.

Environment Conservation Rules (ECR) 1997 amended 2003

42. These are the first set of rules, promulgated under the environment conservation act 1995. Among other things, these rules set (i) the national environmental quality standards for ambient air, various types of water, industrial effluent, emission, noise, vehicular exhaust etc., (ii) requirement for and procedures to obtain environmental clearance, and (iii) requirements for iee/eia according to categories of industrial and other development interventions. Any proponent planning to set up or operate an industrial project is required to obtain an "environmental clearance certificate" from the department of environment (doe), under the environment conservation act 1995 amended in 2002. Ecr 1997 contains the drinking water quality standards which needs to be maintained while providing water supply to workers. Also, construction of bridges will require environmental clearance from the doe, the procedures and formalities of which are delineated in the ecr 1997. under the ecr, projects are classified as 'green', 'orange a', 'orange b', and 'red' to determine the level of environmental assessment required.

43. According to ECR 1997, construction, re-construction and extension of bridge with length below 100 meters is considered as 'Orange B' category for which IEE and EMP reports need to be prepared. On the other hand, construction, re-construction and extension of bridge with length equal to or above 100 meters is considered as 'Red' category for which EIA study is mandatory. These reports have to be approved by the DoE. There is no specific requirement for bridge maintenance activities in particular and it is expected that most maintenance works are addressed in the operation phases of bridge projects. Bridges which fall under 'Red' category will not be a part of the PforR operation.

Water Act 2013

44. The Water Act 2013 mentions that no person or organization shall, without permission of appropriate authority, stop natural flow of any water course or create obstacles to such flow or divert or attempt to divert the direction of any water course by constructing any structure, whether it is on the bank or not, of any water source, or by filling any water source or by extracting sand or mud from any water source.

Public Procurement Rule (PPR), 2008

45. This is the public procurement rules of Bangladesh and this rule shall apply to the Procurement of Goods, Works or Services by any government, semi-government or any statutory body established under any law. The rule includes the adequate measure regarding the "Safety, Security and Protection of the Environment" in the construction works. This clause includes mainly, the contractor shall take all reasonable steps to (i) safeguard the health and safety of all workers working on the Site and other persons entitled to be on it, and to keep the Site in an orderly state

and (ii) protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of the Contractors methods of operation.

Bangladesh Labour Act, 2006 (amended 2013)

46. This Act pertains to the occupational rights and safety of workers and the provision of a comfortable work environment and reasonable working conditions. In the chapter VI of this law safety precaution regarding explosive or inflammable dust/gas, protection of eyes, protection against fire, works with cranes and other lifting machinery, lifting of excessive weights are described. And in the Chapter VIII provision safety measure like as appliances of first aid , maintenance of safety record book, rooms for children, housing facilities, medical care, group insurance etc. are illustrated.

47. The Labour Law of Bangladesh 2006 bans children under the age of 14 from working. However, according to the UN children's agency, UNICEF, 4.7 million children under that age are employed in the informal sector, and 1.3 million aged five to 17 work in hazardous industries. Chapter III of the Act³ under “EMPLOYMENT OF ADOLESCENT WORKER” puts restrictions on employment of children and adolescents as follows:

(1) No child shall be employed or permitted to work in any occupation or establishment.

(2) No adolescent shall be employed or permitted to work in any occupation or establishment, unless:

(a) A certificate of fitness in the form prescribed by rules, and granted to him by a registered medical practitioner is in the custody of the employer; and

(b) He/She carries, while at work, a token containing a reference to such certificate.

National Land Transport Policy (NLTP), 2004

48. The government approved the NLTP in April 2004, which introduced the concept of long-term network planning and integration of transport policy, planning and appraisal across land transport modes. Each sub-sector undertakes physical and institutional improvement in line with its long-term policy provided in the NLTP with each sub-sector master plan. Major issues by sub-sector include (i) maintenance financing, quality, safety and overloading in major roads; (ii) better planning in rural roads; (iii) restructuring Bangladesh Railways into a commercially oriented organization in conjunction with substantial investment in infrastructure, rolling stocks and wagons, equipment, and technical modernization; (iv) efficient dredging and tariff regulation in inland waterways; and (v) operation efficiency improvements in ports. As indicated in the NLTP, environmental adaptation needs to be taken into account in project assessment, which will help mitigate climate change.

National Water Policy (NWP), 1999

49. The NWP promulgated in 1999 with the intension of guiding both public and private actions in the future for ensuring optimal development and management of water that benefit both

³ THE BANGLADESH LABOUR ACT, 2006; ACT NO. XLII OF 2006 [11 October, 2006]

individuals and the society at large. The policy aims to ensure progress towards fulfilling national goals of economic developments, poverty alleviation, food security, public health and safety, decent standard of living for the people and protection of natural environment. According to the policy, all agencies and departments entrusted with water resource management responsibilities (regulation, planning, construction, operation, and maintenance) will have to enhance environmental amenities and ensure that environmental resources are protected and restored in executing their tasks. Environmental needs and objectives will be treated equally with the resources management needs.

The National Fisheries Policy, 1999

50. This policy may be relevant to the supporting rural bridges project as there could be impacts on fish migration during bridge construction activities. The Fisheries Policy highlights the need to conserve fish breeding grounds and habitats. It intends to promote fisheries development and conservation in all water bodies. The project should consider these policies to protect the habitats, migration and connectivity of fish and fisheries resources around the project area. Measures to reduce any potential negative impacts on local fish populations will be incorporated into all stages of the Project.

National Water Management Plan (NWMP), 2001 (approved in 2004)

51. The National Water Resources Council approved on March 31, 2004 a 25-year National Water Management Plan. The plan provides a framework within which all concerned with the development, management and use of water resources water services in Bangladesh can plan and implement their own activities in a coordinated and integrated manner. The planned activity programs have been presented in the eight sub-sectoral clusters: i) Institutional Development, ii) Enabling Environment, iii) Main River, iv) Towns and Rural Areas, v) Major Cities; vi) Disaster Management; vii) Agriculture and Water Management, and viii) Environment and Aquatic Resources. Each cluster comprises of a number of individual programs. Water Resources Planning Organization (WARPO) was assigned to monitor the NWMP.

The Rural Roads and Bridges Maintenance Policy, 2013

52. In 2013 the Government of Bangladesh has adopted “The Rural Roads and Bridges Maintenance Policy”. The objective of the policy is to develop a sustainable rural transport system through an appropriate maintenance management system in order to provide safe operation of vehicles and to ensure necessary funding for their maintenance. The policy document, in particular, provided guidance on the prioritization of rural roads and bridges under budget constraints. The guidance includes: (i) Routine maintenance will get priority over periodic maintenance; (ii) Maintenance of bridges and culverts on upazila and union roads will get urgent attention; (iii) upazila and union roads will get priority over village roads; and (iv) Roads that are fully upgraded and without missing bridges will get a priority. The policy also emphasized the importance of road safety, citizen participation, gender and implementation management linked to the maintenance of rural roads and bridges.

LGED’s Strategy, Guidelines and Environmental Code of Practices (ECPs)

53. In response to the ECA, 1995 and ECR, 1997, and recognizing the need of its donors to ensure sound environmental practices, LGED has developed guidelines and code of practices to ensure that its activities sustain, and where feasible enhance the environment. The LGED aims to implement all its projects in an environmentally sound and sustainable manner that meets all the requirements of the GoB and its financing partners. This approach is embodied in the LGED document titled ‘Environmental Assessment Guidelines for LGED Projects’ formulated by the Environmental Unit of LGED in 2008. Two documents have been prepared under RTIP which provide a sound basis for defining the environmental management procedures and arrangements:

- Manual for Environmental Supervision and Monitoring and Guidelines for Environmental Screening and Categorization of Sub-project, EMU, RTIP (RDP-26), September 2004.
- Environmental Code of Practices (ECP), EMU, RTIP (RDP-26), September 2004.

4.1.2 Policy and Legal Framework for Social Safeguard

54. The GoB’s social laws and policies are deemed adequate for protection, safety, and social security and inclusiveness of the populace. However, the enforcement capacity needs to be improved significantly.

Constitution of the People’s Republic of Bangladesh, 04 November 1972

55. The fundamental rights under the Constitution indicate the general guidelines for a policy on resettlement/rehabilitation of citizens adversely affected (whatever be the mechanism) due to any activity of the State. Article 15, *Provision of basic necessities* of the constitution makes it fundamental responsibility of the State to attain, through planned economic growth, a constant increase of productive forces and a steady improvement in the material and cultural standard of living of the people, with a view to securing to its citizens-

- (a) The provision of the basic necessities of life, including food, clothing, shelter, education and medical care;
- (b) The right to work, that is the right to guaranteed employment at a reasonable wage

having regard to the quantity and quality of work;

(c) The right to reasonable rest, recreation and leisure; and the right to social security, that is to say to public assistance in cases of undeserved want arising from unemployment, illness or disablement, or suffered by widows or orphans or in old age, or in other such cases.

56. The contents of Article 15 are particularly important for the squatters (floating people migrating from rural areas to the cities/towns looking for jobs and/or landless people that construct shanty huts and small temporary business facilities in Government land for survival).

57. Article 20 of the constitution (Work as a Right and Duty) states that:

(1) Work is a right, a duty and a matter of honor for every citizen who is capable of working, and everyone shall be paid for his work on the basis of the principle "from each according to his abilities to each according to his work".

(2) The State shall endeavor to create conditions in which, as a general principle, persons shall not be able to enjoy unearned incomes, and in which human labor in every form, intellectual and physical, shall become a fuller expression of creative endeavor and of the human personality.

58. Article 40 of the constitution, *Freedom of Profession or Occupation* states that: "Subject to any restrictions imposed by law, every citizen possessing such qualifications, if any, as may be prescribed by law in relation to his profession, occupation, trade or business shall have the right to enter upon any lawful profession or occupation, and to conduct any lawful trade or business." This means that every citizen has the right to practice any lawful occupation, which implies that anything that impedes such right (a) should not be done or (b) there should be supplementary measures to make good the losses incurred by the citizen. Resettlement and rehabilitation of adversely affected people due to infrastructure projects very clearly falls within this requirement for supplementary measures.

59. However, Article 42, *Rights to Property*, states that:

"(a) Subject to any restrictions imposed by law, every citizen shall have the right to acquire, hold, transfer or otherwise dispose of property, and no property shall be compulsorily acquired, nationalized or requisitioned save by authority of law.

(b) A law made under clause (1) shall provide for the acquisition, nationalization or requisition with compensation and shall either fix the amount of compensation or specify the principles on which, and the manner in which, the compensation is to be assessed and paid; but no such law shall be called in question in any court on the ground that any provision in respect of such compensation is not adequate.

(c) Nothing in this article shall affect the operation of any law made before the commencement of the Proclamations (Amendment) Order, 1977 (Proclamations Order No. I of 1977), in so far as it relates to the acquisition, nationalization or acquisition of any property without compensation."

60. Thus, according to sub-clause 2, no law with provision of compensation for acquisition of land can be challenged in a court on the ground that such compensation has been inadequate.

National Land-use Policy, 2001

61. The Government of Bangladesh has adopted national Land use Policy, 2001. The salient features of the policy objectives relevant to the program are as follows:

- To prevent the current tendency of gradual and consistent decrease of cultivable land for the production of food to meet the demand of expanding population;
- To ensure that land use is in harmony with natural environment;
- To use land resources in the best possible way and to play supplementary role in controlling the consistent increase in the number of land less people towards the elimination of poverty and the increase of employment;
- To protect natural forest areas, prevent river erosion and destruction of hills;
- To prevent land pollution; and
- To ensure the minimal use of land for construction of both government and nongovernment buildings.

Bangladesh National Building Code

62. The basic purpose of this code is to establish minimum standards for design, construction, quality of materials, use and occupancy, location and maintenance of all buildings within Bangladesh in order to safeguard, within achievable limits, life, limb, health, property and public welfare. The installation and use of certain equipment, services and appurtenances related, connected or attached to such buildings are also regulated herein to achieve the same purpose.

63. Part-7, Chapter-3 of the Code has clarified the issue of safety of workmen during construction and with relation to this, set out the details about the different safety tools of specified standard. In relation with the health hazards of the workers during construction, this chapter describes the nature of the different health hazards that normally occur in the site during construction and at the same time specifies the specific measures to be taken to prevent such health hazards. According to this chapter, exhaust ventilation, use of protective devices, medical checkups etc. are the measures to be taken by the particular employer to ensure a healthy workplace for the workers.

64. Section 1.4.1 of chapter-1, part-7 of the BNBC, states the general duties of the employer to the public as well as workers. According to this section, "All equipment and safeguards required for the construction work such as temporary stair, ladder, ramp, scaffold, hoist, run way, barricade, chute, lift etc. shall be substantially constructed and erected so as not to create any unsafe situation for the workmen using them or the workmen and general public passing under, on or near them".

65. Part-7, Chapter -1 of the Bangladesh National Building Code (BNBC) clearly sets out the constructional responsibilities according to which the relevant authority of a particular construction site shall adopt some precautionary measures to ensure the safety of the workmen. According to section 1.2.1 of chapter 1 of part 7, "in a construction or demolition work, the terms of contract between the owner and the contractor and between a consultant and the owner shall be clearly defined and put in writing. These however will not absolve the owner from any of his responsibilities

under the various provisions of this Code and other applicable regulations and by-laws. The terms of contract between the owner and the contractor will determine the responsibilities and liabilities of either party in the concerned matters, within the provisions of the relevant Acts and Codes (e.g.) the Employers' Liability Act, 1938, the Factories Act 1965, the Fatal Accident Act, 1955 and Workmen's Compensation Act 1923". (After the introduction of the Bangladesh Labor Act, 2006, these Acts have been repealed).

66. To prevent workers falling from heights, the Code in section 3.7.1 to 3.7.6 of chapter 3 of part 7 sets out the detailed requirements on the formation and use of scaffolding. According to section 3.9.2 of the same chapter, "every temporary floor openings shall either have railing of at least 900 mm height or shall be constantly attended. Either a railing with toe board or a hinged cover shall guard every floor hole. Alternatively, the hole may be constantly attended or protected by a removable railing. Every stairway floor opening shall be guarded by railing at least 900 mm high on the exposed sides except at entrance to stairway. Every ladder way floor opening or platform shall be guarded by a guard railing with toe board except at entrance to opening. Every open sided floor or platform 1.2 meters or more above adjacent ground level shall be guarded by a railing on all open sides except where there is 39 entrance to ramp, stairway or fixed ladder. The precautions shall also be taken near the open edges of the floors and the roofs".

GoB Laws on Land Acquisition

67. The principle legal instrument governing land acquisition in Bangladesh is the Acquisition and Requisition of Immovable Property Act, 2017 (Act XXI of 2017 replacing Ordinance II of 1982) and other land laws and administrative manuals relevant to land administration in Bangladesh. According to the Act, whenever it appears to the Government of Bangladesh that any property in any locality is needed or is likely to be needed for any public purpose or in the public interest, the Government can acquire the land with reasonable discretion to current use of the land. Forest reserves, natural water-bodies, archeological sites and historical places are not acquired for development projects. The Act 21 of 2017 requires that compensation be paid for (i) land and assets permanently acquired (including standing crops, trees, houses); and (ii) any other damages caused by such acquisition. The Deputy Commissioner (DC) determines (a) market value of acquired assets on the date of notice of acquisition (based on the registered value of similar property bought and/or sold in the area over the preceding 12 months), and (b) 200% premium on the assessed value for land and 100% for physical assets on the land due to compulsory acquisition. Given that people devalue land during title transfer to minimize tax payment, compensation for land paid by DC including premium may still remain less than the actual market price. The act provides cash based compensation and livelihoods of affected persons and persons without title to land displaced due to resume of public land are not covered in the law. The requiring body, after getting approval of the administrative ministry, requests DC to undertake acquisition of the required land as per its proposal. In addition to the Act 21, 2017, acquisition of any land or forest area, in Chittagong Hill-Tracts (CHT) districts require consent under the Chittagong Hill-Tracts (Land Acquisition) Regulation (1958), the CHT Regional Council Act 1998 and the Forest Act (1927). The Forest Act, 1927 (Act XVI of 1927) revised as of 2000 deals with Reserved Forest, Village Forest, Protected Forest, control over forests on lands not being the property of Govt.

State Acquisition and Tenancy Act 1951(Updated on 30/12/2014)

68. The **East Bengal State Acquisition and Tenancy Act of 1950** (also known as the **East Pakistan Estate Acquisition Act 1950**) was a law passed by the newly formed democratic Government of East Bengal in the Dominion of Pakistan (present day Bangladesh). The bill was drafted on 31 March 1948 during the early years of Pakistan and passed on 16 May 1951. Before passage of the legislature, landed revenue laws of Bengal consisted of the Permanent Settlement Regulations of 1793 and the Bengal Tenancy Act of 1885. In consequence of introduction of the law, no intermediary interest were present between the Government and its people, the government has become the only lord of the land. The Act provides for the acquisition by the State of the interests of rent-receivers and certain other interests in land in Bangladesh and to define the law relating to tenancies to be held under the State after such acquisition and other matters connected therewith. The Act comprises 152 sections divided into five parts and 19 chapters. The Act to provide for the acquisition by the State of the interests of rent-receivers and certain other interests in land in Bangladesh and to define the law relating to tenancies to be held under the State after such acquisition and other matters connected therewith.⁴ During execution, the Assistant Commissioner of Lands (AC Land) in respective districts demarcates the AD Line each year in areas where rivers frequently erode their banks. According to law, if the land classified by an AD Line re-appears within 30 years from the date of erosion, the original owner(s) can claim the land.

Laws and Policies on Adibasi/Ethnic Minority

69. Indigenous Peoples are culturally distinct societies and communities. The land on which they live and the natural resources on which they depend are inextricably linked to their identities, cultures, livelihoods, as well as their physical and spiritual well-being. They hold vital ancestral knowledge and expertise on how to adapt, mitigate, and reduce risks from climate change and natural disasters. Indigenous peoples are disproportionately vulnerable to the impacts of climate change since they often live in environmentally sensitive ecosystems and frequently depend on surrounding biodiversity for subsistence as well as cultural survival.⁵

70. In Bangladesh there are about 45 different tribal groups/Adibasi spread across the country. The proportion of the tribal population (TP) in the 64 districts varies from less than 1% in majority of the districts to 56% in Rangamati, 48.9% in Kagrachari and 48% in Bandarban in the Chittagong Hill Tracts (CHT). The tribal groups belong to different ethno-lingual communities, profess diverse faith, have unique cultures, which are different to mainstream culture, and are at varied/different levels of development (economically and educationally). Most of them inhabit in hard to reach areas such as hilly terrains or the forest areas where access is generally difficult. Moreover, many of these tribal groups are also characterized by slow/low growth rate compared to the mainstream population.⁶ The Constitution of Bangladesh does not mention the existence of the cultural and ethnic minorities in Bangladesh. The only protective provision for the ethnic minorities that the policy makers often refer to in the context is Article 28 (4) which states that: Nothing shall prevent the state from making

²Throughout this Act, the word "Bangladesh" was substituted for the words "East Pakistan" by Article 5 of the [Bangladesh \(Adaptation of Existing Laws\) Order](#), 1972 (President's Order No. 48 of 1972).

⁵<http://www.worldbank.org/en/topic/indigenouspeoples>

⁶Tribal/Ethnic Health Population and Nutrition Plan for the Health, Population and Nutrition Sector Development Program (HPNSDP) 2011 to 2016, April 2011: p 1

special provision in favor of women and children or for the advancement of any backward section of the citizens. The above provision is an ambiguous one and it does not define who or what constitutes "backward". However, the Government recognizes existence of "tribal peoples (TP)" and the need for special attention and in general TP are essentially viewed as backward, poor and socioeconomically & culturally inferior. Towards this end a special program was initiated in 1996- 97 by the Prime Minister's Secretariat aimed at improving the socio-economic situation of the indigenous people of Bangladesh, resident outside the Chittagong Hill Tracts.

71. The Chittagong Hill Tracts Regulation, 1900 (Regulation I of 1900) is the regulatory framework for State sovereignty over the traditional rights of the TP living in the Chittagong Hill Tracts (CHTs) region. They are governed through Revenue Circle Chiefs who are local revenue collectors vide an *amalnama* (authorization by the Government). The Deputy Commissioner and the Commissioner from the Central Government reserve the authority to settle land to the hill-men or non-hill residents or lease out land (nontransferable) for rubber plantation or establishing industries in the CHTs. The CHT districts comprise the reserved forests, the circle of the three Chiefs, viz. the Chakmas Chief, the Bohmong Chief and Mogh Chief and the Maini Valley (rule 35). The Circle Chiefs form Advisory Council to the Deputy Commissioner (DC) for administration of their respective circles and exercise their authority as Chiefs in the prompt enforcement in the mouzas of their circles of all orders of the DC.

72. The acquisition of any land or forest area in Chittagong Hill Tracts (CHT) districts require consent under the Chittagong Hill-Tracts (Land Acquisition) Regulation 1958, the CHT Regional Council Act 1998 and the Forest Act (1927). The Chittagong Hill-Tracts (Land Acquisition) Regulation, 1958 regulation has provision for payment of compensation for requisitioned property. The compensation may be fixed by agreement or by rules framed on this behalf

73. The National Parliament of Bangladesh in 24 May 1998 passed the Peace Accord 1997 as the "Chittagong Hill Tracts Regional Council Act, 1998 (Act 12 of 1998). In addition to reestablishing peace, the Accord recognized the ethnic people's right to land, culture, language, and religion. The Accord set out detailed provisions for strengthening the system of self-governance in the CHT, and redressing the most urgent land-related problems. A ministry on CHT Affairs was established by appointing a Minister from among the adibasis of hill districts. Advisory Council from the CHT region assists this ministry. However, there is a demand for extending the scope of the CHT Affairs Ministry to include the adibasis in other areas of the country.

74. The Program activities will be in all 8 administrative divisions covering 61 districts out of 64 excluding the 3 districts of Chittagong Hill Tracts (CHT) where majority of the Tribal population reside. However, TP/IP living in the plains (less than 1% of the population) where mainstream population inhabits are to be focused whenever any project is planned in TP held areas including their screening, and free, prior, and informed consultation with the affected Indigenous Peoples' communities at each stage of the project.

Gender Equality Strategy of LGED, January 2014

75. LGED's Gender Equality Strategy draws its strength from the National Women Development Policy 2011. The LGED strategy aims at ensuring that all of its infrastructures are made women-friendly (the Planning and Design Unit is responsible in this regard), creating employment

opportunities for the women in its different activities and increasingly establishes a process of decision-making in each and every work through participation of both men and women. Through formulation and execution of this strategy in its length and breadth, LGED intends to attain the very objective of transforming itself into an example among the public-sector organizations towards promoting gender value. It is pertinent to note that access of women to LGED's development program was introduced in 1984.

76. Going by the Strategy, LGED's different sectors, units and projects are now required to prepare their individual 'Gender Action Plan' and 'Implementation Guidelines', which are reviewed by LGED's **Gender and Development Forum** and any refinement/amendments may subsequently come thereof. Beside common jobs, positions most suitable for the women are now kept reserved for them by LGED at a higher ratio. At the same time increased need-based training and other allied supports are extended to the women to enable them to acquire requisite skills within the shortest possible time in their respective fields including self-employment.

77. LGED is also focused on improving working environment for women. **Gender and Development Forum** has established an 'Internal Review and Resolving Committee (IRRC)' to monitor issues involving corporal punishment, mental and sexual harassment of personnel and the beneficiary women at their workplaces.

4.2 Existing Institutional Setup for Addressing Environmental and Social Issues

Ministry of Environment & Forest (MoEF)/Department of Environment (DoE)

78. The Department of Environment (DoE) under the Ministry of Environment and Forests (MoEF) is the main environmental regulation and enforcement agency. Under the provision of the Environment Conservation Act 1995, it is responsible for awarding environmental clearance certificates to development projects, monitoring compliance and enforcement of environmental standards, preventing activities that are likely to cause environmental degradation and carrying out various other advisory and research activities. Wide powers have been given to the Director General of DOE by the Environment Conservation Act, 1995, such as, the power to do anything he/she considers necessary to meet the objectives of the Act including direct immediate closure of any polluting industrial plant and monitoring of environmental quality standards. The DOE is also mandated to coordinate the activities of any authority or agency (including other line ministries or their respective departments) relating to the adherence to basic principles of ECA 1995 and ECR 1997. DoE is set-up in six divisional headquarters and 21 district (out of the 64 districts of Bangladesh) offices. When the DoE issues ECC for a project, the project proponent is required to follow the conditions prescribed by the ECC related to the implementation of mitigation measures and monitoring program.

79. Currently DoE has a partially decentralized modality of issuing environmental clearance. The district offices are empowered to issue Location/ Environmental Clearance certificates in favor of industrial units and projects falling in the Green and Orange- A categories whereas the divisional offices can issue the same for Orange-B categories. The metropolitan offices, too can issue certificates for Green, Orange-A and Orange-B categories. However, Clearance of Red category industrial units and projects is approved by Director General (power conferred by section 12(4) of Bangladesh Environmental Conservation Act 1995) who is supported by a Technical committee at

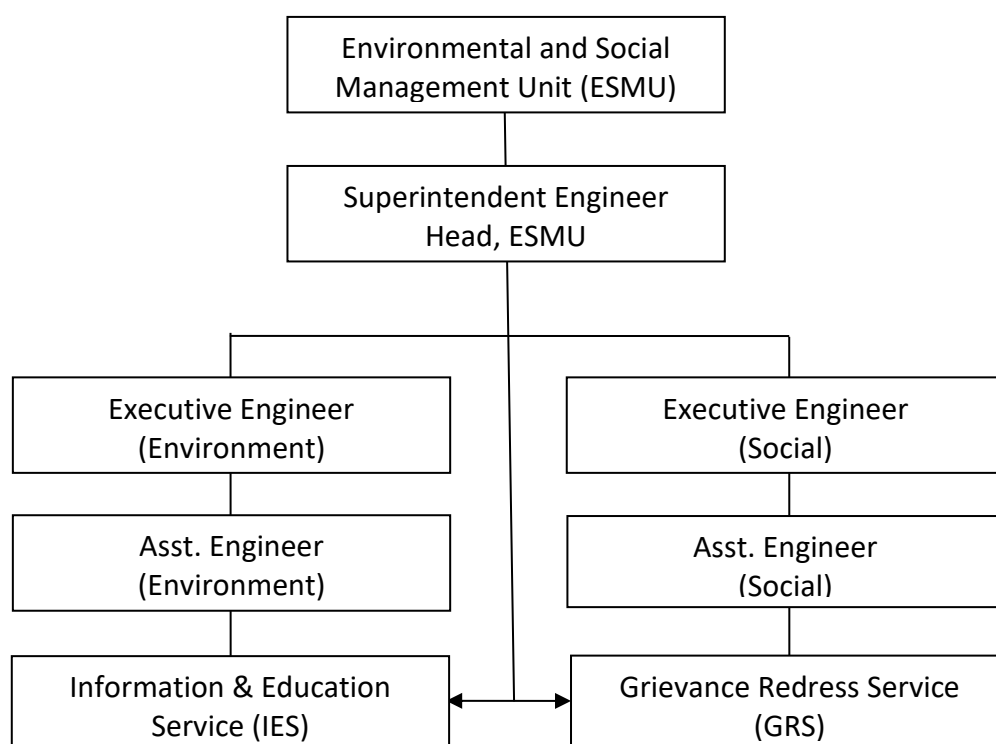
Headquarter. Similar to the headquarters, regional, divisional and metropolitan offices of DOE also have one technical committee each. The committee approves the clearance of industrial units and projects fall under orange-A and Orange-B categories and renew clearance / issue clearance of those industrial units and projects fall under Orange-A, Orange-B and Red categories those affiliated with their office

Ministry of Local Government, Rural Development and Cooperative (MLGRD&C)/Local Government Engineering Department (LGED)

80. The Program will be implemented by Local Government Engineering Department (LGED). LGED is under the Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperative (MLGRD&C). LGED is considered as one of the premier organizations of Bangladesh with a long track record of designing and delivering development partner assisted projects. Local Government Engineering Department (LGED) is one of the largest public-sector organizations in Bangladesh entrusted for planning and implementation of local level rural urban and small-scale water resources infrastructure development programs. LGED is highly decentralized organization where ninety nine percent of total manpower works at district and upazila (Sub-District) level. It has representation in all 64 districts and 489 *upazilas*. The Chief Engineer is the head of the organization supported by four Additional Chief Engineers with subsequent supporting manpower. The total manpower under permanent payroll is 10287 both at headquarters and field levels. There is no dedicated environmental cell or unit in the LGED for monitoring and managing social and environmental risks for all LGED development projects. Environmental units are usually established under the PIU for project supported by development partners (such as World Bank). Such units manned by environmental consultants carry out environmental monitoring at the field level and compliance with environmental standards, prepare quarterly monitoring reports and reports to the project director. Such arrangements can be seen in World Bank supported RTIP-1 and RTIP-II and a similar arrangement is proposed for the Rural Bridges Program. However, in general, development activities carried out without donor support, arrangements for environmental reporting and compliance are absent. This is mainly because environmental management and follow-up activities have not been institutionalized in LGED's organogram. Environmental risk management activities are only visible in donor-supported activities only.

81. The Environmental and Social risk management aspects of the rural bridges PforR will be covered by the ESMF developed by the LGED for overall bridge program. According the to the ESMF, the PIU at the central level will screen bridge projects for IEE or EIA as per ECR 1997 provisions, undertake preparation of IEE/EIA and obtain ECC from the Department of Environment, disclose IEE/EIA/EMP to public, setup environmental and social monitoring units at the central and regional levels and create a monitoring and reporting framework, conduct supervision and monitoring of project interventions under implementation as per ESMF /EMP and recommend for corrective actions.

Figure 1 Proposed Organization of the LGED ESMF for the Bridge Program



82. The *upazila* LGED offices have their accountability during the implementation stage of bridge projects. As a primary implementing organ of the Bridge Project, the *upazila* offices have roles in construction supervision; environmental and social impact supervision and mitigation on day-to-day basis. Incorporation of the environmental codes of practices in the bid document, based on the approved IEE/EIA documents, is the responsibility of the *upazila* office.

Planning Commission

83. The Bangladesh Planning Commission is the central planning organization of the country. It determines objectives, goals and strategies of medium and short-term plans within the framework of long-term perspective and formulates policy measures for the achievement of planned goals and targets. Its activities include the following elements of development planning:

- Policy Planning: determination of goals, objectives, priorities, strategies and policy measures for development plans;
- Sectoral Planning: identification of the role that the various sectors of the economy are required to play in the context of the Plan objectives and goals;
- Program Planning: formulation of detailed resource allocation to realize the Plan objectives and goals;
- Project Planning: appraisal of projects embodying investment decisions for the implementation of the sectoral plans; and
- Evaluation: impact analysis of projects, programs and Plans on the people's living standard.

84. Among various functions of the **Physical Infrastructure Division** under Planning Commission, the pertinent activities linking LGED includes:

- Preparation of short, medium, long-term plans for sectors under Physical Infrastructure Division, including roads and highways, railway, civil aviation and tourism, post and telecommunication, statistics, water distribution, local and municipal infrastructure development, works and housing.
- Establishment of development for hill tracts, and
- Evaluation and approval of different development projects including that of Ministry of Local Government, Rural Development and Cooperative (LGRD&C)

Implementation Monitoring and Evaluation Division (IMED) under Ministry of Planning

85. VISION: Practice and management of monitoring and evaluation with core organizational competences in program monitoring and evaluation, mass communications, and project information systems it advises other government organizations on program design and measurement.

86. MISSION: The IMED monitors and evaluates the performance of revenue and development investment by collecting and analyzing information on project and program results originating from implementing organizations.

87. The IMED Strategic Plan examines the link between financial allocations and equitable economic growth by defining and verifying the relationships between expenditure and eventual development results. Analysis of the performance of ministries and sectors against agreed targets is provided to Executive Committee of the National Economic Council (ECNEC), line ministries and other concerned parties whenever necessary. Wherever possible IMED seeks to explain why sector or ministry performance targets have not been met by careful analysis of program outcomes. This analysis is provided to the relevant bodies so that they can improve their performance if necessary. IMED evaluates the performance of LGED during and upon completion of a project and provides necessary guidance to LGED for further improvement.

The Ministry of Labor and Employment (MoLE) /Department of Labor

88. MoLE is responsible for policy formulation and overall supervision of the departments and offices under it. Among its Directorates, the Department of Labor focuses on Welfare of labor including labor under non-agricultural employment; Industrial unemployment and insurance; Trade unions, industrial and labor disputes, labor courts, wages boards and industrial workers' wages commission; Labour statistics; Administration of labor laws; Labour research including compilation of labor statistics; and Dealings and agreements with international organizations in the field of labor and manpower.

89. The specific functions allocated to the Department are:

- (1) To act as a conciliation machinery under the Industrial Relations Ordinance, 1969 and to deal with labor disputes including strikes and lockouts to ensure industrial peace in the interest of increased productivity and for that matter to investigate into causes of labor disputes and to hold statutory and non-statutory tripartite conciliation meetings of the managements and workers both in public and private sectors;

- (2) To be responsible for overall administration and implementation of the Government's policies and programs on labor welfare and labor management relations and to provide educational and advisory services to the different employing ministries on industrial relations connected with numerous complex socio-economic problems. Besides, this Department is concerned and involved with various other labor laws regulating terms of employment and conditions of work;
- (3) To register trade unions and federations of trade unions under the Industrial Relations Ordinance, 1969 and for that matter to enquire, scrutinize and approve the constitutions and amendments thereof of the trade unions and federations and to issue certified copies of constitutions and other documents of unions including certificate of registration on receipt of prescribed fees as well as inspection of trade unions and their accounts;
- (4) To conduct secret ballot for determination of collective bargaining agents under the Industrial Relations Ordinance, 1969 in industrial and commercial establishments, prepare list of qualified workers, hear their objections, prepare and check voters' lists, inspect and select polling booths, hold secret ballots and keep liaison with the local law and order authorities for security in connection with such ballots;
- (5) To conduct cases on behalf of the Government in civil courts, labor courts and appellate tribunal filed by the trade unions and employers against Government;
- (6) To enquire and process complaint pertaining to unfair labor practices of workers, trade unions and employers and to lodge complaint with labor courts and to pursue such complaints in the labor courts for violation of the provisions of the trade unions by the employers and workers;
- (7) To ensure that the trade unions observe their constitutions and in case of default to take appropriate measures including decertification;
- (8) To act as Statistical Authority in respect of the Industrial Statistics Act, 1942;
- (9) To organize and implement workers' education programs and labor administration training throughout the country in the interest of industrial peace which is an essential prerequisite for higher productivity;
- (10) To organize population/family welfare education in the labor sector with a view to achieving Government's objective of population control.

SECTION V: ASSESSMENT OF COUNTRY ENVIRONMENTAL AND SOCIAL SYSTEM

90. The World Bank's Policy for PforR Financing requires that all PforR operations to 'Operate within an adequate legal and regulatory framework to guide environmental and social assessment at the Program level'. Drawing on the information presented in the preceding sections, the analysis presented here assesses the adequacy of the existing policy and regulatory framework against the core principles outlined in the Bank Policy and Procedures for Program for Results Financing (2017).

5.1 Applicability of Core Principles

91. The statement of the six core principles and their applicability is stated below in the table below:

Core Principle	Applicability
<p><i>Core Principle 1: General Principle of Environmental and Social Management</i></p> <p>Environmental and social management procedures and processes are designed to (a) promote environmental and social sustainability in Program design; (b) avoid, minimize or mitigate against adverse impacts; and (c) promote informed decision-making relating to a program's environmental and social effects.</p> <p>Program procedures will:</p> <ul style="list-style-type: none"> • Operate within an adequate legal and regulatory framework to guide environmental and social impact assessments at the program level. <p>Incorporate recognized elements of environmental and social assessment good practice, including (a) early screening of potential effects; (b) consideration of strategic, technical, and site alternatives (including the "no action" alternative); (c) explicit assessment of potential induced, cumulative, and trans-boundary impacts; (d) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized; (e) clear articulation of institutional responsibilities and resources to support implementation of plans; and (f) responsiveness and accountability through stakeholder consultation, timely dissemination of</p>	<p>Core Principle 1 is applicable for the environmental and social management for the Supporting Rural bridges program. With regards to environmental risk mitigation, the program will require managing impacts associated with civil works for bridge construction, repair and maintenance. And it is essential that an environmental management procedure is in place to address these issues.</p> <p>With regards to social risk mitigation, as the program would cover 61 Districts of the country for repair, replacement, widening and new construction of selected UZR and UNR bridges, the rural society including women, children, the elderly and the TP communities will be affected. The Bank's SupRB will fully comply with Core Principle 1. This along with other measures would encourage the people at large to access the Program.</p>

Core Principle	Applicability
program information, and responsive grievance redress measures.	
<p>Core Principle 2: Natural Habitats and Physical Cultural Resources</p> <p>Environmental and social management procedures and processes are designed to avoid, minimize and mitigate against adverse effects on natural habitats and physical cultural resources resulting from program.</p>	<p>The proposed program investments may impact natural habitats of aquatic flora and fauna including fish as the bridges are constructed across water bodies, and may affect some terrestrial flora due to civil works on bridge approach roads.</p>
<p>Core Principle 3: Public and Worker Safety</p> <p>Environmental and social management procedures and processes are designed to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.</p>	<p>The Program will support new construction and civil works and therefore there will be issues associated with public and worker safety during construction activities. Therefore, core principle 3 will be applicable.</p>
<p>Core Principle 4: Land Acquisition</p> <p>Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods and living standards.</p>	<p>The program may involve land acquisition for bridge approach roads. Therefore, core principle 4 will be applicable.</p> <p>The Acquisition and Requisition of Immovable Property Act, 2017 of the GoB would be followed to legalize acquisition in the country's land administration system. It provides the basis to define resettlement policy objectives, and adopt and implement impact mitigation measures. LGED has developed certain principles to minimize adverse impacts of land acquisition. Noted ones are: (1) Avoid or minimize acquisition of private lands; (2) Use as much public land as possible and so on. The ESMF of overall bridge program has developed Chapter 7⁷ elaborately to address all concerns including acquisition,</p>

⁷ Revised Draft final on Social Assessment and ESMF overall bridge program, August 2017; p 28-42

Core Principle	Applicability
	its impact, mitigation, and compensation issues. This is an exhaustive document that addresses all concerns of this principle.
<p><i>Core Principle 5: Indigenous People and Vulnerable Communities</i></p> <p>Due consideration is given to cultural appropriateness of, and equitable access to, program benefits giving special attention to rights and interests of tribal people and to the needs or concerns of vulnerable groups.</p> <ul style="list-style-type: none"> • Undertakes free, prior, and informed consultation of tribal people those who are potentially affected (positively or negatively) to determine whether there is broad community support for the program. • Ensures that tribal people can participate in devising opportunities to benefit from exploitation of customary resources or tribal knowledge, the latter (tribal knowledge) to include the consent of the small ethnic and vulnerable community (tribal people). <p>Gives attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or marginalized ethnic groups. If necessary, special measures are taken to promote equitable access to program benefits.</p>	<p>Issues arising out this principle on Indigenous Peoples (IP) will depend on the presence of IPs in the project's impact zones where they might be affected in a manner that could threaten their culture and way of life, including present livelihood activities.</p> <p>LGED in its ESMF for overall bridge program has developed a framework that outlines principles, policies, guidelines and the procedure to identify impact issues and potential risks and, if required, formulate and execute Tribal Peoples Plans (TPPs), whenever improvement and rehabilitation works are found to affect tribal peoples (IPs) under any subproject financed by the project.</p> <p>Going by the framework, participation of TP in selection, design and implementation of the bridges will largely determine the extent to which the IPP objectives would be achieved. Where adverse impacts on TP are likely, LGED plans to undertake free, prior and informed consultations (FPIC) with the affected tribal communities and those who work with and/or are knowledgeable of tribal development issues and concerns. To facilitate effective participation, LGED would follow a timetable to consult the would-be affected tribal communities at different stages of the project cycle. The primary objectives are to examine whether there is broad community consensus in support of the subproject and to seek community inputs/feedback to avoid or minimize the adverse impacts associated with the chosen subproject activities; identify the impact mitigation measures;</p>

Core Principle	Applicability
	<p>and assess and adopt economic opportunities which LGED could promote to complement the measures required to mitigate the adverse impacts.</p> <p>Rehabilitation and construction of bridges may have temporary or permanent adverse impacts on the accessibility of elderly people or persons with disabilities. LGED will ensure proper infrastructure design and mitigation measures during construction devised in consultation with such vulnerable peoples.</p>
Core Principle 6: Social Conflict	Not applicable

5.2 Assessment of Existing Policy and Legal Framework vis-à-vis PforR Principles

92. The GoB's legal policy framework on environment and social impact management consists of a set of national policies, acts, strategies, directives, guidelines and management frameworks. The existing government policy and legal framework on the management of social and environmental impacts generally reflects, to various extents, the following general principles of PforR Policy and Procedures:

- Avoid, minimize or mitigate against adverse impacts
- Promote environmental and social sustainability in program design
- Promote informed decision-making relating to a program's environmental and social effects;

93. Two of the main objectives of the Bangladesh Environment Policy 1992 are to maintain ecological balance and overall development through protection and improvement of the environment and ensure environmentally sound development in all sectors. This has been done through establishment of dedicated institutions and regulatory framework, framing new laws and amending old laws in order to establish environmental and social management process and procedures to make the environmental assessment transparent and effective for the mitigation of the adverse effects of development on the natural and social resource base. The ECA 1995 and ECR 1997 is an umbrella environmental act and rules respectively in the country for the protection of natural environment. The ECA and ECR combined with other acts, policies and guidelines (as discussed in previous Section) encompass most of the key principles defined in OP/BP 9.0. They provide guidance and directions for avoiding, minimizing or mitigating potential adverse impacts on natural resources and important natural habitats. The ECR has provisions for declaring ecologically critical areas to restrict development activities and applying polluter's pay principle to charge compensation to polluting industries – all for the protection of natural environment. Laws related to forest and fisheries protection, wildlife conservation, protection of antiquities are adequate for the

preservation of natural habitats of fish species and protection of physical cultural resources. Worker health and safety during construction have also been addressed in a number of legislations and rules (BNBC 2006, Labour Act 2013, PPR 2008 etc.). The DoE guidelines for Industries (1997), the sectoral development EA guidelines, the LGED environmental Codes of Practices also address the general principles of PforR Policy and Procedures.

94. The ECA and ECR do not permit implementation of a development activity or project without approval of the respective IEE or EIA, whichever required. ECR 1997 provides clear directions on obtaining environmental clearance certificates and Schedule 1 elaborates the classification of industrial units or projects based on its location and impact on environment. According to ECR 1997, construction, re-construction and extension of bridge with length below 100 meters (under the purview of the PforR) is considered as 'Orange B' category for which IEE and EMP reports need to be prepared. The procedure for obtaining site and environmental clearance are delineated in Figure 1.

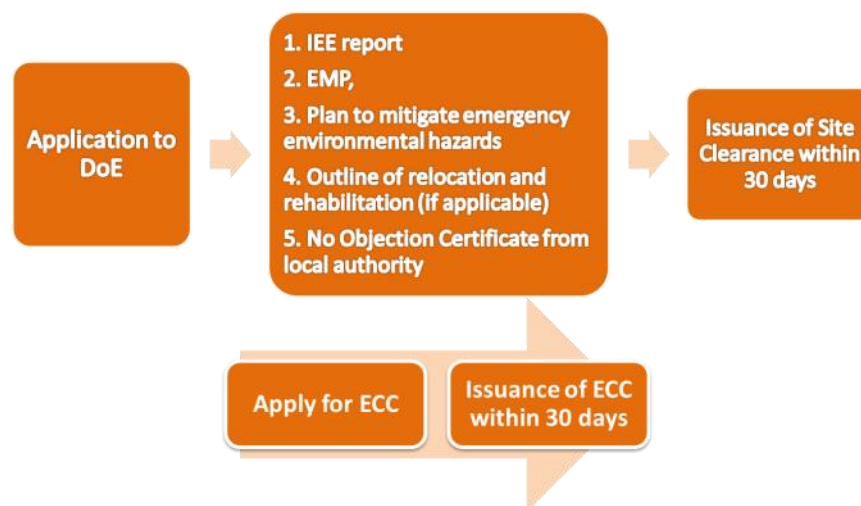


Figure 2 Procedure and requirements for obtaining site and environmental clearance

95. Bridges with potentially higher environmental risk (larger span bridges, ecologically sensitive areas etc.) is required to be subjected to full EIA, which will not be under the purview of the proposed PforR. However, environmental assessments have been made mandatory for all kinds of projects to avoid, minimize and mitigate adverse impacts and promote environmental sustainability of the project design.

96. Public participation or consultation is not a condition to obtain environmental clearance according to ECR 1997; however, DoE prefers the proponent to engage in public participation during EIA preparation as stated in the "EIA guidelines for Industries" (DoE, 1997). ECR 1997 mandates submission of the No Objection Certificate from the local authorities (*upazila parishads*, and municipalities) while forwarding environmental assessment documents for approval to the DoE with the expectation that the local authority would consult the public before issuing the NOC. But this form of public consultation is very limited and might not be adequate to promote informed decision-making relating to a program's environmental and social effects. Opportunities for the public to review the EIA report are under the discretion of the Director General of the DoE. The DoE does not officially disclose EIA report findings publicly in their website unless the implementing agencies of

projects do that either on their own accord or subject to disclosure requirement of donor agencies (WB, ADB).

97. The EIA system has one procedural loophole, which probably renders the analysis of alternatives in the EIA report to become redundant. The DoE approves site clearance for the project before issuing the ECC, which is issued after the EIA report has been reviewed. As per ECR 1997, the project proponent is allowed to invest his resources and develop the land on the project site when the site clearance is issued. This undermines the importance of the ECC and any analysis presented in the EIA (or any analysis of alternate sites) would only be there to justify the site already selected for the project. This greatly diminishes the value of any analysis of alternatives specially for 'Red' category projects. The analysis of alternatives should be done at an early stage of the EA process such as during preparation of IEE. Since the Program under PforR operation will include only bridges that are in 'Orange-B' categories, which only requires an IEE/EMP for site clearance and analysis of alternatives can be carried out during IEE study, this loophole may not be relevant. However, it needs to be ensured that an alternative analysis is incorporated in the IEE study.

98. Apart from issues with public consultation and analysis of alternatives, the umbrella legislation ECA/ECR does not explicitly cover the process and procedures for environmental and social management regarding protection of public and worker safety against the potential risks associated with: (i) exposure to toxic chemicals, hazardous wastes and otherwise dangerous materials; or (ii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards. These can be addressed through developing generic guidelines or ESMPs for a particular project.

99. GoB has adequate regulatory framework against the principles of PforR to guide social impact assessments at the program level. The constitutional obligations are the primary laws that transcends onto other relevant laws/regulations of different ministries/agencies incorporating social assessment good practices that includes early screening of potential effects, consideration for site alternatives including the 'no action' alternative, identification of measures to mitigate social impacts that cannot be avoided and/or minimized. There exist relevant laws concerning land acquisition, compensation to displaced persons for land, properties, crop damage, loss of business etc. including supplementary livelihood improvement owing to the execution of a program (see section 4.1.2). Relevant execution agency (LGED) has basic institutional structure to support and implement the programs though at places paucity of adequate qualified manpower is prevalent owing to number of projects under GoB and assisted by IDA. There is honest effort of responsiveness and accountability through stakeholder consultation from the inception of the program.

5.3 Assessment of the Country Environmental and Social Management System

100. Bangladesh's environmental management systems that apply to the Rural Bridge Program consist of national legal policies and sector guidelines that are broadly consistent with World Bank Policy and Procedures on Program for Results Financing (PforR Policy). However, some gaps do exist compared to the basic principles of the PforR policy as elaborated in the previous section. In this regard, LGED has bridged these gaps and provided specific guidance in these lacking areas for its bridge program through developing an Environmental and Social Management Framework (ESMF). The ESMF for overall bridge program outlines environmental and social risk management activities under the Program. The ESMF describes detailed procedures and formats for environmental

screening, assessment of environmental impacts and preparing site-specific Environmental Management Plans (EMP). It also provides a clear institutional framework for monitoring and managing social and environmental risks and carrying out environmental due diligence. The ESMF was developed in line with relevant World Bank safeguard risk management policies, addressed gaps in the national legal framework for dealing with environmental impacts and will serve to guide the Rural Bridges Program to manage environment issues in accordance with principles of the PforR policy.

101. Existing social management systems that apply to overall bridge program includes various national policies and specific sector guidelines that are generally consistent with World Bank PforR Policy. However, there exist certain gaps in these policies and guidelines in relation to the basic principles of World Bank PforR policy and procedures as elaborated in the previous section. LGED, the entity to implement the program has identified and addressed these gaps and provided guidance through its specifically developed Environmental and Social Management Framework (ESMF). The ESMF was developed in line with relevant World Bank safeguard risk management policies, addressed gaps in the national legal framework for dealing with social impacts and will serve to guide the Rural Bridges Program to manage social issues in accordance with principles of the World Bank PforR policy and procedures. The ESMF for overall bridge program outlines social and environmental risk management necessary in connection with the activities under the PforR. The ESMF describes detailed procedures and formats for social screening, assessment of social impacts and preparing site-specific Social Management Plans (SMP) and where required Resettlement Action Plans (RAP) and/or Tribal Peoples Development Plan (TPDP). It also provides a clear institutional framework for monitoring and managing social and environmental risks and carrying out social due diligence.

5.3.1 Environmental Elements

102. The environmental assessment and management process as formulated in the ESMF developed for overall bridge program is delineated in Figure 2. The environmental elements pertaining to the core principles of the World Bank PforR policy and procedures are discussed below. A Design and Supervision Consultancy (DSC) firm ('Design Consultant') will be hired who will be based in the regional office and responsible for design and overall supervision of sub-project activities. The 'Design Consultant' will ensure that environmental considerations are given sufficient attention, weight and influence over design decisions of realignment, construction of bridges sub-projects and will also prepare the bid documents. A Management Support Consultant (MSC) are to be selected through International Competitive Bidding and are expected to have in-house capacity to prepare EA, to advise on and to supervise the implementation of the ESMF and the EMP including making the decisions regarding environmental categorization of the sub-project, to assess the applicability of relevant ECOP to the sub-projects, preparation of site specific environmental designs and modifications to the mitigation and enhancement measures, as necessary, during the sub-projects' implementation.

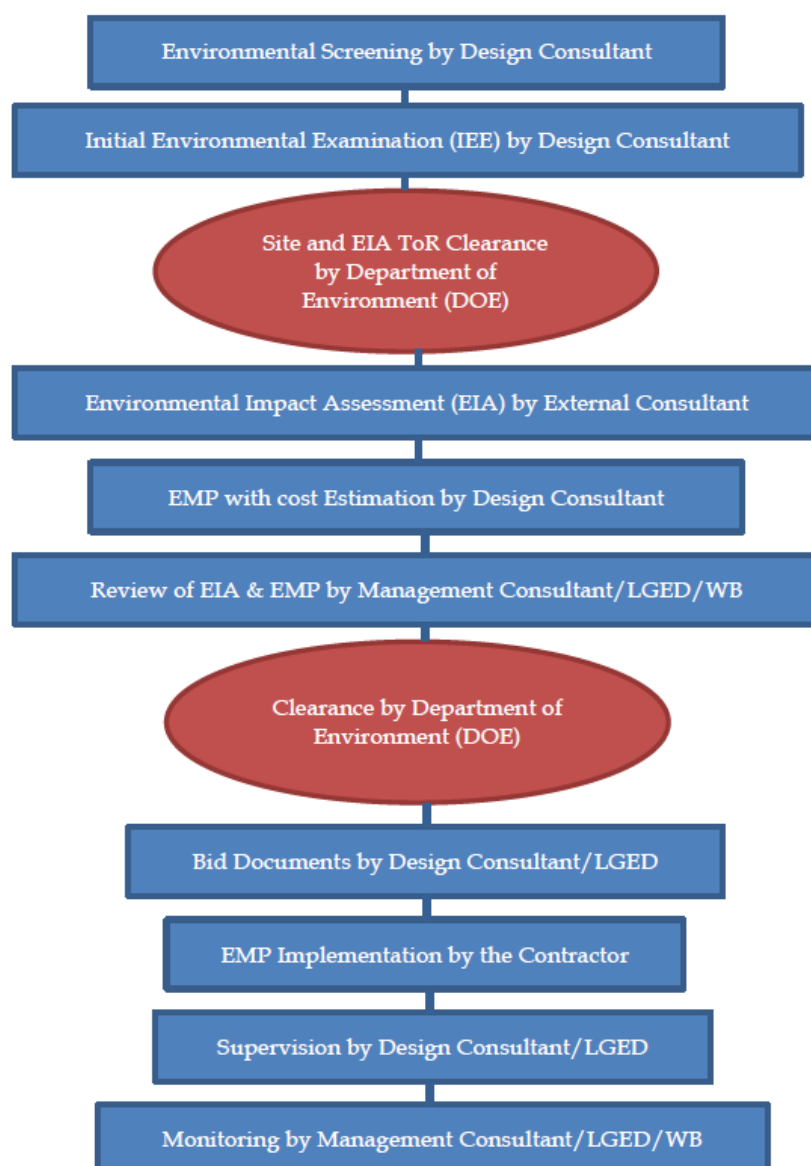


Figure 3 Environmental assessment and management process according to the ESMF of overall bridge program

103. **Early screening of potential effects:** Environmental screening identifies the consequence of the proposed projects in broader sense based on similar project experiences, stakeholder's perceptions and expert judgment, without having very much detailed investigation. Critical issues are also identified through screening, which needs detailed investigation. Based on the extent of environmental impacts, obtained from the environmental screening, the decision for further environment impact assessment will be taken. In the ESMF, a screening checklist has been developed for bridges sub-projects under the overall bridge program (Appendix-B: Screening Checklist and Questionnaire). Members of Management Support Consultant (MSC) team will use this screening checklist for collecting information through site visit, consultation with stakeholders and Focus Group Discussions (FGDs) in the project site. During the environmental screening, if it is found that the sub-project may create major irreversible environmental damage or may violate an existing environmental rule or regulation, the sub-project will be rejected. For instance, any sub-project that

may encroach into an ECA or a heritage site will be rejected. The LGED will confirm the findings of the environmental screening carried out by the field staff consultants.

104. **Consideration of strategic, technical, and site alternatives (including the “no action” alternative):** GoB's environmental system considers analysis of alternatives (including no-project scenario) as an essential part of the EA process as stated in the DoE Guidelines for Industries (1997). Construction of new bridges under Program will follow the IEE process, which incorporates an analysis of alternatives as an essential step after environmental screening. The environmental, social, economic and technological aspects alternative site and technological design will be analyzed for the proposed bridges sub-projects under overall bridge program (Ref section 2.2.1.5.1 (IEE Studies) of the ESMF of overall bridge program).

105. **Explicit assessment of potential induced, cumulative and trans-boundary impacts:** As stated in the DoE EIA guidelines, the country system explicitly requires identification and prediction of the potential direct and indirect environmental impacts in the project site and its immediate surroundings: the scope of impacts include physical, biological, socio-economic, and cultural environments. According to Chapter 4 of the ESMF of overall bridge program, all the potential long term and short-term environmental impacts should be identified. The impacts will be categorized qualitatively in order to identify major impacts and relevant components. Chapter 6 of the ESMF lists all possible environmental impacts for bridge construction projects. However, assessment of the cumulative and trans-boundary impacts of bridge projects is not explicit in the ESMF. But the impacts related to the program are short-term and have limited geographical extent and it is not envisaged that the impacts would be cumulatively aggregating over time (or space) because of interference with other projects of foreseeable future. Also, since the new bridges under Program are not going to be constructed over trans boundary rivers, 'transboundary impact' assessment will not be necessary.

106. **Identification of measures to mitigate adverse environmental impacts that cannot be otherwise avoided or minimized:** This is a requirement for each project that is subjected to IEE as per DoE EIA guidelines. The environmental Codes of Practices developed by LGED also lists all possible mitigating measures for negative, unavoidable impacts. The ESMF of overall bridge program have made provisions for the identification of measures to mitigate the perceived adverse environmental impacts with list of potential measures for bridge projects. Chapter 6 of the ESMF of overall bridge program lists all possible mitigation measures for specific impacts associated with bridge projects.

107. **Responsiveness and accountability through stakeholder consultation:** It is mentioned earlier that the EA system of the country does not explicitly require dissemination of information and stakeholder consultations at different stages of a project that require IEE or EIA. However, this gap is filled up by providing specific guidance in the ESMF of overall bridge program. According to the ESMF, the issues and concerns of the stakeholders are required to be addressed in the respective EA documents. The project subjected to IEE or EIA is required to disclose the information and consult stakeholders. It is recognized that consultations with the key stakeholders will need to be carried out throughout the program life. These will include consultations and liaison with communities and other stakeholders during the construction phase and also extensive consultations with the grass root as well as institutional stakeholders during the IEE process. A consultation framework has been

developed in the section 5.3 of the ESMF for overall bridge program. An executive summary of ESMF in Bengali and English will be disseminated through LGED website and hard copies of ESMF (English with the executive summary in Bengali) will also be available at *upazila* engineer's offices.

108. **Grievance redress measures:** The ESMF of overall bridge program requires establishment of grievance redress mechanism particularly related to the land acquisition and compensation issues. Redress for environmental issues such as pollution, nuisance, obstruction of access etc. will be sought under the same mechanism and a separate grievance redress cell for environmental issues will not be required.

109. **Early identification and screening of potentially important biodiversity and cultural resource areas:** One of the screening criteria in the early phase of project identification as per ESMF of overall bridge program is the location of the project relative to cultural heritage site, protected area (forest), wetland (beel, haor), national park, wildlife sanctuary, buffer zone of protected area and special areas for protecting biodiversity. (Ref: Part B-1 of the screening questions of the ESMF under Annex B). So the system allows early identification and screening of potentially important biodiversity and cultural resource areas.

110. **Program avoids the significant conversion or destruction of natural habitats:** Mitigation measures in section ECOP 11 and 12 state the responsibility of contractors during tree-cutting and protection of fisheries. Bridges will be constructed over small rivers or canals so any significant conversion of forest area is not anticipated. Bridge foundation works are carried out usually in the dry season when there is no or minimal flow in the canal and typically that is not the breeding season for fish species.

111. **Proactive protection, conservation, maintenance, and rehabilitation of natural habitats:** Proactive protection, conservation, maintenance and rehabilitation of natural habitats are not specifically addressed in the ESMF of overall bridge program and this is because significant alteration of natural habitats is not expected.

112. **Takes into account potential adverse effects on physical cultural property:** The ESMF of overall bridge program requires screening of a proposed project for its effects on Physical/cultural resources/sites. The ESMF states that the Contractor will be responsible for familiarizing themselves with the "Chance Finds Procedures" in case culturally valuable materials are uncovered during excavation or any project activities and sets out a *list* of activities which would be followed if such materials are found. These include stopping work immediately following the discovery of any materials with possible archeological, historical, paleontological, or other cultural value, announcing findings to project manager and notifying relevant authorities; restarting construction works only upon the authorization of the relevant authorities etc.

113. **Promotes community, individual and worker safety:** The ESMF of overall bridge program ECOP-18 provides occupational health and safety guidelines which calls for mitigation provisions for the safety of communities and occupational health workers. It highlights contractors' obligations, best practices for worker safety, accident prevention and provision for safe water supply and sanitation services at the site. The occupational health and safety measures will also be incorporated in the bidding documents which will make these legally binding obligation for the contractors.

114. ***Promotes use of recognized good practice in the production, management, storage, transport, disposal of hazardous materials generated through program construction or operations:***

Materials used in construction have a potential to be a source of contamination. Improper storage and handling of fuels, lubricants, chemicals and hazardous goods/materials **onsite**, and potential spills from these goods may harm the environment or health of construction workers. ECOP 3 (Hazardous materials management) provided a range of preventive, mitigating, and compensatory measures for the management of hazardous materials generated through program construction or operations.

115. ***Measures to avoid, minimize or mitigate community, individual and worker risks when program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather:***

Specific provisions for the projects located within areas prone to natural hazards has not been detailed, however, according to the ESMF, it is suggested to perform alternate analysis in earlier stages of the EA **process** to determine alternate alignment or designs for infrastructures located in hazard-prone areas.

116. The preceding discussion shows that the environmental policy, legal framework, and guidelines applicable to the proposed PforR are consistent with OP/BP 900. The LGED's ESMF overall bridge program has been found **adequate** to bridge the gaps in the existing policy and legal framework and no update on the ESMF is required.

5.2.2 Social Elements

117. The issues of concern are explained below:

- ***Ensure people's participation in devising opportunities to benefit from customary resources/ Indigenous knowledge that are socially and culturally acceptable:*** The ESMF developed has addressed these issues for each sub project. As such, at the micro level Upazila Engineer leads the process along with local leadership.
- ***Program planning and implementation for equitable benefits/special measures for vulnerable/ disadvantaged groups:*** As the program involves improving rural connectivity through reconstruction, rehabilitation and maintenance of existing bridges along upazila and union roads, it will benefit all including the vulnerable and disadvantaged groups. Design and construction approach will adoptive to facilitate equitable access by women, children and physically challenged persons. Vulnerable and disadvantaged groups will be specially assisted in the resettlement process.
- ***Avoid or minimize land acquisition and related adverse impacts and involuntary resettlement issues:*** LGED envisages minimal land acquisition during the process of implementing the program as the rehabilitation bridges are located in the existing places with rare exceptions. Land acquisition would at places be necessary for construction of approach road of bridges. This could affect some homestead, small businesses and agricultural lands. Certain fallow public land would also require clearing from the squatters and landless people, who have built tiny house structures/running petty businesses there.
- ***Potential economic and social impacts caused by Involuntary taking of land:*** There would be adverse economic and social impact owing to the displacement of small businesses and homestead including farmland and trees from the acquired lands. Uprooting of families from

homestead will adversely affect day-to-day activities including education of children, added living cost through renting of temporary accommodation etc.

- ***Provide compensation sufficient to purchase replacement assets (land, houses, other structures, of equivalent value) without deducting depreciation, charging taxes or levies and with proper valuation of assets:*** Resettlement of the project-affected persons will be planned and developed as an integral part of the bridges design. Absence of legal titles in cases of public land users will not be considered a bar to resettlement and rehabilitation assistance, especially for the socio-economically vulnerable groups. The ESMF dedicated for overall bridge program has detailed provisions for providing adequate compensation to purchase replacement assets with proper valuation of assets without taking into consideration the depreciation and titles to land. This also involves assisting with physical relocation and provision of basic facilities like water supply and sanitation. In the same note compensation for the squatters are also planned in the ESMF. The affected people are kept informed through close consultation on resettlement and compensation options.
- ***Provide supplemental livelihood improvement or restoration measures in case of loss of income generating opportunities:*** Wherever possible, in case of loss of income generating activities, certain jobs at the work site would be given to the needy and qualified ones. The ESMF has provisions to ensure sustenance of the income streams of displaced business operators/traders with measures developed in consultation with the affected persons.
- ***Restore or replace public infrastructure and services and community services and provide compensatory arrangements if the program imposes new heightened restriction in resource use:*** Where the Program activities cause community-wide impacts affecting community facilities and services, LGED will rebuild them with its own resources and/or provide alternatives in consultation with the user communities.
- ***Free, prior and informed consultations (FPIC) with the Tribal Peoples:*** Tribal peoples with respect of characteristics defined in the World Bank policy are communities referred to in the Core Principle 5. The tribal peoples in the program area residing with the mainstream population (less than 1% of the population) will be treated following core principles on indigenous peoples that may require free, prior and informed consultation before every stage of the Program activities.
- The program area is limited in 61 districts and the three hill districts, where tribal peoples are mainly concentrated, are not within the program scope. The ESMF provides guidance for FPIC, if tribal peoples are identified in a program influence area are found to be indigenous by characteristics.

SECTION VI: OPERATIONAL PERFORMANCE AND INSTITUTIONAL CAPACITY ASSESSMENT

118. From the discussion in the preceding sections, it is evident that the GoB's policy and legal framework are broadly aligned with the core principles of World Bank Policy and Procedures on Program for Results Financing. The gaps in the legal and policy framework have been found to be adequately addressed through LGED guidelines and ESMF prepared overall bridge program. However, at the operational level the ESMF application has faced some lapses, which are highlighted below. The information obtained below are from review of documents, monitoring reports and discussion with project officials and concerned stakeholders during field visits.

6.1 Management of environmental impacts at the operational level

119. LGED as an implementing agency is familiar with preparing and implementing ESMFs. A number of WB-financed projects including MGSP, MDSP, RTIP etc. required preparation and implementation of ESMFs, which LGED has been carrying out. In addition, LGED is managing numerous projects funded by GoB or other DPs. In particular, for the RTIP project LGED has been carrying out screening for different subprojects such as rural road improvements, rural road maintenance, improvement of rural waterway and growth center market and preparing quarterly monitoring reports and an insight into the performance of LGED in implementing ESMF can be gained through these reports. For the RTIP-2 project, LGED conducts field inspections and surveys by the Environmental Specialist (employed by M&E Consultant) at field. The M&E consultant is responsible for independent monitoring and implementation of EMP, and external monitoring and evaluation. Dedicated environmental unit is established under the PIU staffed with environmental consultants and a clear reporting and monitoring framework is present under constant supervision of World Bank. But that is not the case for projects supported by GoB revenue budget without donor agency supervision. LGED has been handling a huge number of bridges and culverts with a range of short to large span length. Environmental issues are considered during project planning (feasibility study) and IEE/EIA reports are prepared for individual projects and ECC obtained from DoE. LGED has their own environmental guidelines, which provides assistance in performing environmental assessments and designing mitigation/monitoring measures. However, EIA implementation and follow-up (implementation of mitigation measures at the field level) continues to remain a challenge. The Department of Environment is too much understaffed to perform operational monitoring of such projects and their role is limited to primarily providing environmental clearance based on IEE/EIA reports. There is no permanent environment management department/unit in the LGED with dedicated manpower with specific expertise to conduct environmental mitigation monitoring. The following lapses are observed for bridge projects supported by GoB revenue budget without donor agency supervision:

- IEE/EIA report prepared and ECC obtained, but these reports are shelved for good and often not found in project offices, let alone disclosure to public either through online or through hard copies.
- No evidence of environmental screening of impacts in the EA process.
- Limited or no follow-up of mitigation measures and environmental monitoring activities and monitoring reporting.

- Inadequate provision for worker health and safety including provision of PPE, clean water and sanitation

120. Most of these issues can be addressed, if there is an LGED central environmental and social cell. Currently, LGED is undertaking this critical task with limited capacity and through consultant support in project-to-project basis. The ESMF overall bridge program highlights this fact and recommended establishing a central Environmental and Social Management Unit (ESMU) in LGED with qualified staff including Executive Engineer (EE), Assistant Engineers and Sociologists to help managing environmental and social risk and impacts of all LGED projects.

121. Experience from field visits in existing projects show that there are several gaps in ESMF implementation. For example, some provisions of the EMP such as mandatory signboards and signage, drinking water and sanitation facility and construction of temporary labor-sheds have been complied with. But the adoption of PPE, waste management practices, reporting and documentation are areas, which still would require much improvement as compliance to these basic codes of practices have been found to vary from site to site. It has been found that although PPE has been provided and available at site, the laborers are not using them, as they are not habituated to do so. Although there is evidence that the level of compliance has improved in certain places due to the change in attitude of contractors, there is still scope for improvement. Bridge construction, rehabilitation and maintenance will require labor-force with specific expertise and such expertise may not be available in the local people which will necessitate bringing manpower from outside the area or locality. Therefore, provision of basic services (labor-sheds, drinking water, sanitation facilities) will be mandatory in such works. Also, there is need for periodic training of the workers regarding occupational health and safety in bridge construction and maintenance works.

6.2 Management of Social Impacts in Bridge Program

122. Through its sustained involvement with IDA/WB under projects namely MGSP, MDSP, RTIP I and II, and Emergency Cyclone Recovery and Restoration Project (ECRRP) etc., LGED is familiar with preparing and implementing SMFs to the satisfaction of the development partners. LGED has been carrying out screening for different subprojects for the RTIP II project such as rural road improvements, rural road maintenance, improvement of rural waterway and growth center market and preparing quarterly monitoring reports. It is evident from the discussion in the preceding sections that the operational performance of LGED is broadly aligned with the core principles of PforR. The recently developed ESMF overall bridge program has addressed the Institutional capacity and shortcomings and have allocated specific budget to hire additional staff to address the shortfalls.

123. While evaluating the institutional lapses during the preparation of ESMF of bridges, LGED felt the need to recruit a full time Senior Sociologist and 61 District Sociologists⁸ to support LGED XEN at each district besides setting up of an information processing facility in each LGED district Office with required number of qualified persons and office equipment to collate and update resettlement database to monitor land acquisition and delivery of entitlements. It also needs to

⁸ District Sociologists are core staff position but this position is vacant in most district level LGED offices. LGED may attempt to fill out these positions, but will employ sociologist individual consultants under the program, at the minimum.

employ temporary staffs for the enumeration of the censuses, baseline socio-economic surveys and market surveys. However, there is no specific guideline as to when these persons would be employed and for how long.

124. Relevant issues of the bridge ESMF include the followings:

- **Free, prior and informed consultation with indigenous communities.** The issue has been discussed and is being complied with.
- **Assessment of impacts of land taking, including on those without titles.** Social Impact Assessment (SIA) by LGED focuses on three issues that are deeply involved with land in some form or other as identified during social screening of each project. The issues are: land acquisition; resettlement, and social concerns. The ESMF developed by LGED overall bridge program identifies 'land without titles' as Vested and Non-resident Property and qualifies the occupants to receive compensation.⁹
- **Compensation and assistance to restore livelihoods, including those without titles.** Compensation and resettlement issues are expected to be associated with (i) private land acquisition; (ii) displacement of squatters and encroachers from public lands, including those owned by LGED and 'land without titles' that are under authorized and unauthorized use; and (iii) resumption of leased-out public lands from private citizens. LGED arranges for compensation for the affected persons irrespective of title to the land acquired or resumed for civil works construction.
- **Compensation at replacement cost.** LGED will form market price assessment committee for assessing the current market price of affected land and assets and determine replacement cost as practiced in similar other projects.
- **Practice of voluntary donation of private land and dispossession of public land.** LGED plans to coordinate with local community and local administration in promoting voluntary donation of private land for the Program as the local community would ultimately be the beneficiary of the Program activities. Though infrequent, there could be occasions when the weaker ones could be coerced to donate land voluntarily for the Bridge purpose by the local leadership. To arrest this, GRC in situ should specifically note and probe into grievances, if any, on the 'Voluntary Donation' cases. UE and the XEN at the district LGED office should confirm actual donations. LGED HQ should also involve a Third Party to monitor and confirm the 'Voluntary Donation of Land' cases to be free of threat or coercion.
- **Planning documentation.** Are incorporated in the ESMF.
- **Grievance resolution.** LGED has developed an effective GRM at the micro level that is to address and redress the grievances within 4 weeks.
- **Monitoring and evaluation.** LGED will conduct field inspections and surveys of social management activities associated with the Program implementation through engaging independent third-party validation consultant.

⁹ Revised Final draft SA and ESMF overall bridge program/SUPBR, Chapter 8; p 31-32

SECTION VII: RECOMMENDED MEASURES TO STRENGTHEN SYSTEMS PERFORMANCE

7.1 Strengthen Environmental and Social System Performance

125. The environmental and social systems assessment presented in preceding sections identified the compatibility of the systems of the LGED bridges program with respect to the Core principles of environmental and social management for PforR investment. The assessment has found the systems largely compatible by policy and practice but identified some gaps with respect to financing sources. LGED practices a dual-track performance in its implementation between domestically and internationally financed operations. These have led to generally weak performance in its implementation of its environmental and social policies. The ESSA therefore, recommends addressing institutional capacity constraints and gaps across a range of environmental and social management system limitations.

126. These recommendations are summarized as actions and incorporated in the Program Action Plan (PAP) and has been agreed with the borrower. Specific recommendations were made to address the identified risks, gaps/challenges and needs. These measures for improvement of the environmental and social management system (ESMS) have been discussed with the implementing agencies.

127. Recommended measures to strengthen system performance for environmental and social management

Objectives and issues	Measures for strengthening systems performance
Environment and Social Management Instruments	<p>The Environment and Social Management Framework (ESMF) developed by LGED for their overall bridge program is deemed adequate to address the social and environmental risks for the proposed Supporting Program of Rural Bridges (SupRB) under PforR financing (the Program).</p> <p>LGED will prepare site specific Environmental and Social Impact Assessment (ESIA) along with the environmental and social management plans (ESMP) following the ESMF for LGED's overall bridge program. The ESMP includes EMP, Resettlement Action Plan (RAP) and Tribal Peoples Development Plan (TPDP), as required for civil works packages.</p> <p>The ESMPs will be prepared at the design stage for individual works packages and the RAP/TPDP will be implemented before start of civil works on site, while the EMP will be followed for implementation level activities.</p> <p>LGED will ensure preparation and implementation of ESMPs and the independent monitor will review compliance on a quarterly basis.</p>

Objectives and issues	Measures for strengthening systems performance
<p>Strengthen institutional capacity for managing social and environmental risks</p>	<p>LGED does not have a separate environmental and social unit with dedicated staffing for monitoring and managing social and environmental risks in different projects. Under the current program, with bridge construction, rehabilitation and maintenance activities, there will be increased requirement of environmental/social risk monitoring and management support, which will be difficult to handle without a permanent environmental and social unit setup with dedicated environmental/social experts.</p> <p>LGED will, therefore establish an Environmental and Social Management Unit (ESMU) or its equivalent for supporting environmental and social issues in LGED projects/programs, including SupRB. The ESMU will have dedicated environmental and social staff to monitor safeguard activities of SupRB. The number of environmental and social staff to be appointed by LGED will be proportional to the requirement or workload in different regions.</p> <p>LGED will form and operate an ESMU at its HQ with appropriate staffing for the Program and establish it within LGED by July 31, 2019. While ESMU or its equivalent is established within LGED at the central level, similar consultant resources will be appointed for the SupRB for management of environmental and social issues associated with its implementation.</p>
<p>Capacity building and training</p>	<p>It is recommended that LGED continue its capacity building initiatives for implementing, monitoring and evaluation of environmental and social risk management measures under SupRB. LGED is providing relevant training to its staffs at the grassroots level in its existing World Bank-supported projects. For example, LGED Executive Engineers and Assistant Engineers at the district and <i>upazila</i> level have received training on project preparation and implementation mainstreaming environmental and social safeguards under RTIP-II. However, experience suggests that there are gaps in monitoring and managing social and environmental risks at the field-level. Therefore, there is need for continued capacity building initiatives especially to the staff at the grassroots level. The requirement for capacity building is also emphasized in the ESMF for the bridge program.</p> <p>LGED will continue specific training on environmental and social management at the SupRB implementation level as proposed in the program ESMF. Activities for gender mainstreaming, communications and citizen engagement as per the program ESMF will be given special attention in all training and capacity building activities. A budget for capacity building initiatives for the project staff including occupational</p>

Objectives and issues	Measures for strengthening systems performance
	<p>health and safety (OHS) training of workers of the civil works contractors will be allocated during Program design.</p> <p>The capacity building initiatives will be monitored for number of training activities organized, number of project staff trained and number of project staff benefited from the training.</p>
Inclusion and gender mainstreaming	<p>LGED has developed a Gender Equality Strategy in 2014 for its regular operations. Program design has taken this strategy, as well as other gender related evidence into consideration and use all-inclusive consultative process in design and implementation.</p> <p>LGED will establish a strong monitoring system in the form of participation plan and GRM under Upazila Engineer, LGED. XEN, LGED at the District level will be responsible for its supervision.</p> <p>The monitoring system will be established at the upazila and at the district levels before mobilization of the civil works contractors and continue over the period of subproject implementation.</p> <p>The Program will endeavor to fill this gender gap by employing women in high skilled positions to be recruited under the operation. These high skilled jobs include roles such as engineers, technicians, consultants and other relevant positions in LGED. The target is set at employing women in 20 percent of all high-skilled positions.</p>
OHS	<p>LGED will appoint a third party (national or international development organizations like BRAC, ILO) to help building LGED's capacity on Occupational Health and Safety (OHS) (in addition to labor rights and gender issues) by: (a) supporting the government in the formulation of OHS policies, guidelines, awareness materials etc.; (b) supporting LGED in the dissemination activities, especially linked to OHS related achievements; (c) providing hands-on support to LGED in managing OHS during civil works implementation.</p>
Child labor management	<p>LGED will not allow use of child labor as restricted in local law and as per ILO convention on worst form of child labor. LGED, in its contractual documents with civil works contractors will make specific mention that children under the age of 18 may not be employed in project works that is likely to be hazardous or be harmful to the child's health or physical, mental, spiritual, moral or social development. An appropriate risk assessment will be conducted, together with regular monitoring of health, working conditions and hours of work where child labor will be employed. Upazila Engineer, LGED along with his team would monitor</p>

Objectives and issues	Measures for strengthening systems performance
	<p>strict compliance of the issue at the construction sites and XEN at the District level supervise.</p> <p>Standard signboard at the worksites will be displayed within a week of mobilization of contractor(s) warning for child labor restrictions including age, form of work and working hours for children.</p> <p>A third-party will be employed under the Program to monitor compliance of Child labor related laws and convention.</p>
Labor influx management and GBV	<p>Since there will be no new construction of large bridges, major labor influx is not expected to be a significant issue. However, contractors will have to develop site-specific measures and a working plan for labor management (LMP) approved by LGED before the work starts and update them whenever necessary. This labor management plan (LMP) will be explicit about child labor and GBV at work sites.</p> <p>LGED will thus ensure that contractors develop site-specific LMPs and deploy relevant personnel resources before the work starts and update the LMP whenever necessary. Local community, including marginalized, vulnerable and indigenous community and other stakeholders will be consulted while preparing and updating the LMPs.</p> <p>Bidding documents will thus be revised to reflect specific costs for OHS, environmental management and social management in the BoQ. Plus, contract documents for civil works under the Program will include specific clauses on labor influx management, child labor restrictions and handling GBV related issues, including the need to develop labor management plans (LMPs) as indicated above.</p> <p>Specifically, LGED will ensure the following (by incorporating these in the contractual documents and through physical monitoring):</p> <ul style="list-style-type: none"> • Contractors will be encouraged to employ unskilled workers from the bridge vicinity as much as possible; • Labor sheds will be constructed near the work sites so that presence of migrant workers does not adversely affect the local community and their way of living; • Undertake mandatory and repeated training and awareness program for the workforce at site on LMPs. • Inform the local law enforcers and encourage them to participate in the training on LMP to demonstrate government authority at the work sites;

Objectives and issues	Measures for strengthening systems performance
	<ul style="list-style-type: none"> • Adequate measures for gender friendly work place environment will be taken at all works sites and at the labor sheds; • Ensure to address OHS issues at works sites inclusive of all workers by gender, age and ethnicity and ensure availability and use of personal protective equipment; • Ensure firefighting and first aid facilities at the work site and identification and coordination with ambulance services and hospitals for quick evacuation at the events of worksite accidents; • Display important telephone contacts like local emergency services in billboards at the work site and labor shed; • Access and make use of GRM for any issues of labor influx management for misconduct, illicit behavior, drug abuse and other social crimes etc. in coordination with the local law enforcing agencies, where required; and • In contracts higher than BDT 40 million (US\$ 500k), deploy site specific Community Coordinators adequately trained for facilitating social management addressing issues like labor influx, child labor, gender based violence and grievance resolution. <p>Besides, a strong monitoring system targeting labor management and GBV issues will be established by LGED under the Program including the engagement of a third-party monitor (cf. below) and the creation and operation of a Grievance Redress Mechanism (GRM) for settlement of labor related complaints and grievances including GBV.</p>
Third party monitoring	<p>LGED will appoint a third party (national or international development organizations or Non-Government Organizations – ex: Bangladesh Rural Advancement Committee, ILO) to monitor field-level implementation of environmental and social mitigation measures including voluntary land donation matters, labor influx, occupational safety and health, gender based violence and child labor restrictions.</p> <p>The third-party monitor will be engaged in the second year of Program implementation.</p>

7.2 Program Action Plans

128. The following are the social actions identified for the Program Action Plan:

- (a) LGED will follow its Environmental and Social Management Framework (ESMF) adopted for the rural bridges maintenance national program for implementation of the Program and integrate it into its operational manual.

- (b) LGED will establish a separate Environmental and Social Management Unit (ESMU) or its equivalent with appropriate staff resources for environmental and social issues, communications and gender the earliest during the tenure of the rural bridges PforR agreed with the Bank.
- (c) The Maintenance Division of LGED, implementing the rural bridges PforR program, will review and revise its current ESMF for the rural bridges maintenance national program into a corporate Environmental and Social Management System (ESMS) during the tenure of the rural bridge PforR program for overall transport sector under LGED, in a form and substance satisfactory to the Bank throughout the Program implementation.
- (d) LGED will allocate resources for capacity building of its staff for implementing, monitoring and evaluation of social and environmental risks as well as occupational health and safety training for workers involved in bridge construction, rehabilitation and maintenance.

7.3 The Grievance Redress Mechanism

129. GoB encourages free flow of and people's right to information, under the 'The Right To Information Act, 2009 Bangladesh' came into effect on 6 April 2009. The right to information shall ensure that transparency and accountability in all public, autonomous and statutory organizations and in private organizations run on government or foreign funding shall increase, corruption shall decrease and good governance shall be established. In the ICT domain, GoB has developed a dedicated web portal (http://www.grs.gov.bd/home/index_english) where the aggrieved one's could register complains and seek remedial measures. MLGRD&C/LGED has developed Grievance Redress Mechanisms (GRM) to ensure better accountability and transparency in its Bridge program.¹⁰ LGED plans to form Grievance Redress Committee (GRC) for each upazila to ensure easy accessibility by the affected persons. Upazila Grievance Redress Committee (UGRCs) will be nominated by the Upazila Engineer and approved by the Program Director. UGRC will sit at least once in a month. Complaints would be received at the office of the Upazila Engineer through the Community Organizer. The GRC is composed of Upazila Engineer at the *upazila* LGED office as convener, while Community organizer at the *upazila* LGED office works as the Member-Secretary. Other members include: (1) Local UP Member, (2) Teacher from local educational institution; (3) representative of local NGO; (4) representative of local Women's group; and (5) representative from the 'project Affected Persons' group. All cases would be addressed within 04 weeks of their receipt.

130. The District Grievance Redress Committee (DGRC) will be headed by Executive Engineer, LGED and will sit at least once in a month. The DGRC will hear the cases referred from UGRC, complaints on tender and quality of works and suggestions received from beneficiaries. The both committee will also receive suggestions from beneficiaries. Members from local people's representatives and local elite persons will be ensured in the DGRC. All the complaints and suggestions will be recorded in registers.

¹⁰ ESMF overall bridge program

131. However, there needs a change in the planned “Institutional and Procedural Arrangements for Grievance Redress” where LGED is in the chain¹¹. Going by the Banks TOR on ESSA on GoB Bridge program, the Program will be implemented using the existing government institutional structure and “No project Management Unit is envisaged”¹². Besides GRC, there would be billboard at the construction sites where relevant information of the project including information of contact persons for GRM including name, mobile telephone number and email address will be displayed for easy consultation by the aggrieved persons. It was revealed during stakeholders’ consultations that the common people are unaware of the Grievance Redress Mechanism/ procedure and are ignorant of the GRC composition including individual’s contact number and other detail address. *They demanded to fix a separate billboard showing GRC’s composition in detail and the mechanism in Bangla and English in LARGE FONT so that they can conveniently understand and vent their grievances.*

132. Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR Program, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance redress mechanism or the World Bank’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the World Bank’s independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of the World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank’s attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank’s corporate GRS, please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

¹¹ Revised Draft Final on Social Assessment and ESMF overall bridge program, July 2017; p 28

¹²TOR on ESSA

ANNEX A: STAKEHOLDER CONSULTATION

The assessment team has carried out various consultations with the LGED officers at the headquarters and *upazila* offices as well as local government officials and communities at the field level. The team made two field visits at different geographical area of proposed project sites: 1) the first one in Chouddagram, Comilla on September 21, 2017 and 2) the second one in Umanandapur Bazar, Saturia, Manikganj on November 16, 2017. There the team met cross section of people including head quarter and field officials of LGED, relevant *upazila* officers, contractors, NGO workers and local community leaders including members of the UGRC. The team also came across two compensation recipients under the RTIP II project of LGED, whose land was acquired for the road Sreefoltola-Satbaria-Suagazithat links with Dhaka- Chittagong Highway at Suagazi. Through conversation it was revealed that the affected persons received their compensation within 45 days from submitting their claims and the process was smooth. During the meetings, the team discussed relevant government policies, institutional responsibilities and their implementation performance of ESMF. This feedback provided the basis for the development of the assessment report.

The comments and observations in both the field trips are very positive and encouraging. The cross-section of people is excited with the project and expressed that good upazila and union road communication network through improved bridges would advance their economic condition and overall living standard. They promised to provide all out support including donating additional land for the construction of the bridges, wherever possible. **The specific issues that they emphasized on are as follows:**

- Fixing a separate billboard at the Project site showing GRC's composition in detail and the mechanism in Bangla and English in large font so that anyone could conveniently understand and vent their grievances, if any.
- Minimum felling of trees – the audience informed that more trees are cut by the contractors on the plea of site clearance and are later sold in the market for profiteering. Once the project is complete, the contractor has to do afforestation and the bid document shall keep this provision.
- At the project sites, contractors take insecure electric connection from Rural Electrification Board (REB). At places these have affected passerby and domestic animals with serious injury and death. They demanded that Upazila Engineer, LGED supervises this matter religiously.
- Contractors often leave the project site upon completion of the project without clearing the debris and other material that is harmful for the locals. They demanded Upazila Engineer, LGED to ensure this matter before clearing the project.
- The audience also suggested that they spend money and time to visit UE, or his staff and GRC members at the upazila headquarters. They requested that some financial

compensation in the form of incentive for social responsibility be given to the complainant on case-to-case basis.

- Last, but not the least, the audience emphasized on consultation with the local populace and local leadership by LGED hierarchy on the requirement and prioritization of the bridges before finalizing the projects.

LGED HQ is advised to take note of the issues mentioned at the grass root level and incorporate relevant issues in the contractual documents for strict compliance by the contractors. Close supervision at micro level by the Upazila Engineer and XEN at the District HQ will avert such mismanagement at the project sites.

A national level disclosure workshop of ESSA was conducted on April 25, 2018 with broader stakeholders including relevant ministry and LGED officials, other infrastructure agencies of the Government of Bangladesh, NGOs, consultant community, and women. The participants took interest on the assessment's findings and recommendations under the PforR program. They took part in discussions in the questionnaire session and largely supplemented the recommendations. Major concerns and suggestions from the disclosure workshop were noted as follows:

- **Need for ESSA.** While externally financed projects follow project specific environmental and social management policy and procedures, environmental and social systems assessment has a special significance in a program-based investment. This is quite new in LGED's regular portfolio. It will require careful screening, management and oversight of environmental and social issues associated with the program projects.
- **Bank Approval.** LGED's work in program implementation will be subject to third party verification of results and Bank approval on subproject design and implementation including environmental and social management, is not mandatory.
- **Program and Project.** The rural bridges maintenance national program of LGED's portfolio will be supported partially with the Bridge PforR Program covering the bridges below 100-m span and those are only on Upazila and Union Roads. A program is a longer-term activity on a sector while project is a certain intervention on an immediate shorter term.
- **Risks and Impacts.** Risk is the state of vulnerability of communities and the environment of experiencing certain adverse consequences of program interventions that may or may not happen, while impacts are intended or unintended consequences those will happen. Measures will be identified and implemented to avoid, minimize, mitigate or compensate impacts. Program activities will be designed and implemented avoiding environmental and social risks identified in the screening process.
- **Selection Criteria.** The program should adopt inclusive and flexible selection criteria so that actual vulnerability and need can be addressed as per demand of the time. The selection criteria should not be an excuse of excluding practical needs.
- **Role of World Bank in Land Acquisition.** Land acquisition will be the responsibility of the Government of Bangladesh. World Bank will look at the third-party certification of land acquisition process as recommended in the Program Action Plan.

- **Biodiversity Conservation.** LGED can conduct a baseline environmental survey for investigating biodiversity and existence of vulnerable species in program areas in the process of design of program activities.
- **Environmental and Social Management Unit.** Establishment of the Environmental and Social Management Unit (ESMU) within LGED will take time. It is therefore, advisable to establish program specific environmental and social team to carry out management of environmental and social issues and concerns associated with the program activities.
- **Labor Influx and GBV.** Risks of labor influx and GBV will be low for the Program activities of rehabilitation of existing bridges and construction of new bridge of the span below 100-m. However, LGED should be particular in advance screening and preparation of labor management plans, and their closer monitoring to avoid risks associated with labor influx including child labor and GBV.

The ESSA report has been disclosed through the World Bank external website. The ESSA with agreement from the Government, has also been uploaded onto the LGED website on September 17, 2018.

Certain pictures of field visit at Choddogram Upazila are appended below:

Compensation Recipients- Choddogram, Comilla – September 21,2017



ANNEX-B: LIST OF KEY STAKEHOLDERS CONSULTED

Persons met	Organization
Mr. Alberto CERDA MICO	Senior Labor Inspection and OSH Specialist, ILO RMG Project Office, Gulshan - 2
Md. Afsar Uddin (70)	Compensation recipient for land acquisition; Satbaria, Choddo Gram
Mr. Farid Mia Mozumder (75)	Compensation recipient for land acquisition; Sreefoltola, Choddogram
Mr. Farid Ahmed	Community Organizer, Choddo Gram Upazila
Mr. Md. Mahfuz Alam	Chairman, Munshirhat Union, GRC Member
Mr. Abdul Wadud Mozumder	Member, Kashinagar Union Porishod, GRC Member
Mr. Md. Mojibur Rahman	Headmaster, Sonakatia Primary School, Choddo Gram; GRC Member
Ms. Nasrin Akhter	Union Porishod Member and President, TMSS, Pechaimuri Branch, Choddo Gram; GRC Member
Ms. Nasima Khanam Mozumder	Panchra Women Development Organization, Choddo Gram; GRC Member
Mr. Shakawat Chowdhury	Representative of the Affected Community; GRC Member
Md Abul Kalam Abdur Rouf	Chairman Dhankora Union Porishod, Saturia
Md. Abdul Haque	Businessman, Dhankora
Mr. Md Ebadat Alam	XEN, LGED HQ, Dhaka
Mr. Md Abdul Barek Hawlader	XEN, LGED, Manikganj
Md ObaidulH aq	Ex Chairman Dhankora Union Porishod
Md Azizur Rahman	Trader, Umanandapur Bazar
Sunil Kumar Saha	Trader, Umanandapur Bazar
Md Monayem Khan	UP Member, Ward 6, Dhankora
Shahidul Islam	NGO worker
Ms. Sabrina Zannat	Sociologist, LGED HQ
Md Moynul Islam	RTIP II, LGED HQ
Khandaker Asaduzzaman	Sr. AE, LGED Office, Manikganj
Ms. Dilruba Akhter	AE, RTIP II, Manikganj
Faizul Huq	Upazila Engineer, Saturia
Md SolamUddin	Golara, Dhankora
Md Selim Ahmed	Trader, Saturia
Md Abdul Barek	Physician, Saturia
Mawlana Md Nazrul Islam	Imam, Dhankora
Shafiuddin	Trader
Md Masud Rana	Trader

Persons met	Organization
Abdul Kader	Trader
Md Amir Hossain	Trader
Md Shawkat Islam	Trader
Md Odimuddin	Trader
Md Ali	Trader
Khokon Sarker	Trader
Md Arif Hossain	Rickshaw Puller, Ghior
Souroda Kumar Gosh	Trader, Ghior
Maksudur Rahman	Trader, Ghior
Ripon Bepary	Trader, Ghior
Jony Akhter	Service
Mini Begum	Housewife
Ms. Afroze Begum	Housewife
Rekha Rani Sarkar	Housewife
Ms. Vogoboti	Housewife
Munni Akhter	Housewife
Md SaifurRahman	Trader, Golora
Md Chan Mia	Farmer
Prodip Halder	Trader
Asaruddin	Farmer
Swapon Karmaker	Driver
MdS hamsulHaq	Farmer
Md Ratan Molla	Trader
Md Nobu Kha	Farmer
Momota Saha	Housewife
Ms. Hira Begum	Housewife
Ms. Farida	Business
Md Abdur Rashid	Business
Md Tara Mia	Farmer
Dulal Mia	Farmer
Ratan Saha	Trader
Md Tamer Ali	Trader
Md Farid Hossain	Driver
Md Monir Mia	Driver
Md Joynal Abedin	Driver
Md Liton Bepary	Driver
Rahizuddin	Trader
Md Mosharaf Hossain	Student
Md Arif Hossain	Driver
Gouranga Kumar Gosh	Trader
Ripon	Trader
Shamsul	Vegetable Trader, Golara

Persons met	Organization
Md Hanif Ali	Farmer
Binayali	Trader
Sampa Rani Saha	Shopkeeper, Koitta
Farida Begum	Shopkeeper, Golara
Golapi	Eatery Shopkeeper
MdIdris Ali	Shopkeeper, Golara
Kazim Uddin	Day Laborer
Falu Hawlader	Fisherman
Md Shahidul Islam	Trader
Md Rafikul Islam	Trader
Shamim Hossain	Trader
Md Mahbub	Trader
Momtaz Akhter	
Monira Akhter	
Anisur Rahman	Service
Md Afzal Hossain	Trader
Md Sobhan	Shopkeeper
Md Abul Kalam	Trader
Sagar Sarker	Student
Abdul Aziz	Shopkeeper
Md Mintu	Trader
Md Shamsul Haq	Shopkeeper
Noor Mohammad	Farmer
Idris Ali	Trader
Md Rafikul Islam	Doctor
Md Abdul Motaleb	Trader
Md Intaz Ali	Shopkeeper
Sontom Saha	Shopkeeper
Md Nuru	Shopkeeper
Md Shafikul Islam	Trader
Minu	Housewife
Ms. Sajeda	Housewife
Khadeza	Day Laborer
Amela	Day Laborer
Rima	Day Laborer
Amena	Day Laborer
Baharjan	Day Laborer
Md Shamsul Haq	Trader



The Cross-Section of People attending the Consultation Workshop, Umanandapur, Satura, Manikganj, 16 November 2017



ESSA Disclosure Workshop, 25 April 2018: Responding to questions and comments from the participants.



ESSA Disclosure Workshop, 25 April 2018: Registration of participants.



ESSA Disclosure Workshop, 25 April 2018: Questions and suggestions from participants were all largely supplementing the ESSA recommendations.









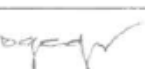
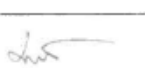
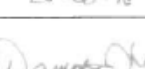

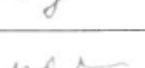
ANNEX C: PRELIMINARY RESULTS FRAMEWORK (TO BE UPDATED)

Indicator Name	Description	Frequency	Data Source	Methodology for data collection	Responsibility for Data Collection
PDO Indicator 1: UZR and UNR bridges that are in good and fair condition	UZR and UNR bridges that require only minor maintenance major maintenance	(a) Midterm review and (b) within 4 months of closing date	RuBIMS	Data on bridge conditions will be collected and updated in RuBIMS.	LGED
IR Indicator 1.1: UZR and UNR bridges maintained (minor & major maintenance)	Completed meters of UZR and UNR bridges that have undergone minor & major maintenance	Annual updates	Program reports	The Program reports will provide information based on data from the field.	LGED
IR Indicator 1.2: UZR or UNR bridges rehabilitated	Completed meters of UZR and UNR bridges that have undergone rehabilitation	Annual updates	Program reports	The Program reports will provide information based on data from the field.	LGED
PDO Indicator 2: New UZR and UNR bridges built or replaced with climate-resilient features in 19 coastal districts	Completed meters of UZR and UNR new bridges with climate-resilient features in 19 coastal districts	(a) Midterm review and (b) within 4 months of closing date	Program reports	The Program reports will specify how many new bridges are built or replaced with climate-resilient features. This will be supplemented by field visits.	LGED
IR Indicator 2.1: Rehabilitation, capacity expansion, replacement, and new construction works of bridges in 19 coastal districts with climate-resilient reinforced cement concrete structures	Proportion of UZR and UNR bridges that have been rehabilitated, capacity expanded, replaced, or newly built with climate-resilient features in 19 coastal districts compared with the total number of bridges that underwent same interventions in 19 coastal districts	Annual	Program reports	The Program reports what proportion of new bridges are built, replaced, capacity expanded, or rehabilitated with climate-resilient features in 19 coastal districts. This will be supplemented by field visits.	LGED
IR Indicator 2.2: Construction of climate-resilient new rural bridges in overall program areas	Completed meters of new UZR and UNR bridges with climate-resilient features	Annual	Program reports	The Program reports will provide information based on data from the field.	LGED
PDO Indicator 3: Severed or constrained UZR and UNR links made fully operational	Kilometers of UZR and UNRs made fully operational through capacity expansion, replacement, or new construction of bridges	(a) Midterm review and (b) within 4 months of closing date	GIS/ RuBIMS	Data will be collected from the field and will be verified using the GIS/ RuBIMS database. A road link will be assessed as fully operational if that link does not	LGED

Operation for Supporting Rural Bridges (SupRB): Environmental and Social Systems Assessment

Indicator Name	Description	Frequency	Data Source	Methodology for data collection	Responsibility for Data Collection
				have any gaps and does not have bridges that are less than 5.5 meters carriageway width.	
IR Indicator 3.1: UZR or UNR bridge capacity augmented	Completed meters of UZR and UNR bridges that have undergone capacity expansion (widening)	Annual	Program progress reports	The Program reports will provide information based on data from the field.	LGED
IR Indicator 3.2: UZR or UNR bridges newly constructed or replaced	Completed meters of UZR and UNR bridges that are newly constructed or replaced	Annual	Program progress reports	The Program reports will provide information based on data from the field.	LGED
PDO Indicator 4: Bridges under the Program designed using in-house technical resources	Percentage of Program bridges designed using in-house technical resources.	Annual	Program progress reports	The Program reports will provide information on this.	LGED
IR Indicator 4.1: Senior positions created or reassigned at headquarters	Number of senior positions (executive engineer or above) created and staffed at headquarters to deal with rural bridges	Annual	Program progress reports	The Program reports will provide information on this. This would be verified against the Government's administrative orders.	LGED
IR Indicator 4.2: Employment of women under the Program in high skilled positions	Positions filled by women as a proportion of total number of technicians, engineers, consultant and other relevant staff positions under the operation	Annual	Program progress reports	The Program progress reports will provide specific information on this.	LGED

ANNEX-D: LIST OF PARTICIPANTS ATTENDED IN THE WORKSHOP ON APRIL 25.

<p style="text-align: center;">Registration</p> <p style="text-align: center;"><u>Consultation of Environmental & Social Systems Assessment (ESSA)</u></p> <p style="text-align: center;">Venue : RDEC Bhaban, Level-12, LGED HQ, Dhaka-1207.</p> <p style="text-align: center;">Date : 25/04/2018 Time : 10:00am to 01:15pm</p>				
Sl. No.	Name & Designation	Organization	E-mail ID	Signature
1	Mr. Md. Joynal Abedin Addl. Chief Engineer (Maintenance)	LGED HQ Agargaon, Dhaka	ace.maintenance@lged.gov.bd joynal59@yahoo.com	
2	Mr. Md. Khalilur Rahman Addl. Chief Engineer (Implementation)	LGED HQ Agargaon, Dhaka	ace.imp@lged.gov.bd khalil.lged@yahoo.com	
3	Mr. Abdul Kuddus Mandal Superintending Engineer (Maintenance)	LGED HQ Agargaon, Dhaka	se.maintenance@lged.gov.bd	
4	Mr. Syed Abdur Rahim Executive Engineer, Maintenance Unit	LGED HQ Agargaon, Dhaka	rahimbdk@yahoo.com	
5	Mr. Md. Mozammel Haque Executive Engineer, Maintenance Unit	LGED HQ Agargaon, Dhaka	mozammel64@gmail.com	
6	Mr. Md. Al-Amin Khan Executive Engineer, Maintenance Unit	LGED HQ Agargaon, Dhaka	amink480@gmail.com	
7	Mr. Saleh Ahmed Manager (Planning & Development)	Bangladesh Economic Zones Authority	-	
8	Mr. Md. Abdul Awal Molla Superintending Engineer (CC)	Social and Environmental Circle, Roads & Highway Department	aamolla@gmail.com sese@rhd.gov.bd	
9	Mr. Md. Khaled Shaheed Executive Engineer	Roads & Highway Department	shaheedrhd@gmail.com eeenv@rhd.gov.bd	
10	Mr. S. M. Enamul Kabir Deputy Secretary (Addl. Dir., Environment)	Padma Multipurpose Bridge Project, Bangladesh Bridge Authority	enamul5723@gmail.com	
11	Mr. Mohammed Ayub Sr. Program Coordinator	Samahar	akhaura.laksam@gmail.com	
12	Mr. Md. Rafiqul Islam Program Coordinator	IEB	-	
13	Mr. Md. Musfequzzaman Associate Specialist	River Engineering Division, IWM	mzn@iwmbd.org 01847-189331	


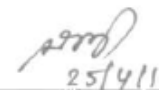
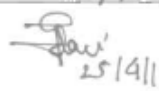
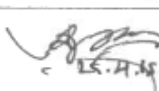

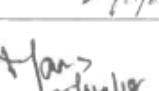
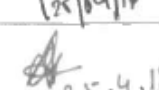
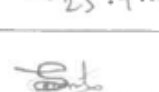
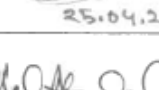
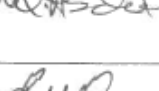
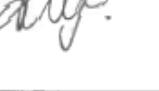
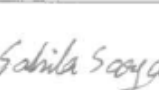
Registration

Consultation of Environmental & Social Systems Assessment (ESSA)

Venue : RDEC Bhaban, Level-12, LGED HQ, Dhaka-1207.

Date : 25/04/2018

Time : 10:00am to 01:15pm

Sl. No.	Name & Designation	Organization	E-mail ID	Signature
14	Mr. Toufique Kibria Executive Engineer	LGED HQ Agargaon, Dhaka	t_kibria@yahoo.com	
15	Mr. Md. Enamul Haque, PEng. Project Director, RTIP-II	LGED HQ Agargaon, Dhaka	bd.enamul1966@gmail.com pdrtp2.lged@gmail.com	 25/4/18
16	Mr. Md. Golam Yazdani Deputy Project Director, RTIP-II	LGED HQ Agargaon, Dhaka	mdgolamyazdani@yahoo.com	 25/4/18
17	Mr. Mir Tanweer Husain Sr. Assistant Engineer, RTIP-II	LGED HQ Agargaon, Dhaka	tanweer.husain@gmail.com	 25.4.18
18	Mr. Md. Kabirul Islam Sr. Sociologist, RTIP-II	LGED HQ Agargaon, Dhaka	kabirul.1960@gmail.com	 25/4/18
19	Mr. Manas Mandal MANDAL Assistant Engineer, RTIP-II	LGED HQ Agargaon, Dhaka	manas910@yahoo.com	 25/4/18
20	Ms. Abinass Hossneara Assistant Engineer, RTIP-II	LGED HQ Agargaon, Dhaka	abinassh@yahoo.com	 25.4.18
21	Ms. Sabrina Zannat Sociologist, RTIP-II	LGED HQ Agargaon, Dhaka	zannatshipra11@gmail.com	 25.04.2018
22	Mr. Md. Abdul Gafur Social Scientist cum Resettlement Specialist, RTIP-II	LGED HQ Agargaon, Dhaka	gafur9@gmail.com	 25.4.18
23	Mr. Sayed Monjurul Hoque Environmental Specialist, RTIP-II	LGED HQ Agargaon, Dhaka	monjur.lged.rp@gmail.com	 25.4.18
24	Sahila Sarjana Assistant Eng, RTIP-II	LGED HQ Agargaon, Dhaka	sarjana.sahila@gmail.com	 25.4.18
25	Khan Md. Rabiul Alam Media Consultant, RTIP-II	LGED HQ	lgedrtp2media@gmail.com	 25.4.18




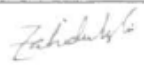
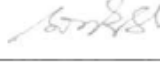

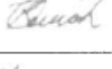
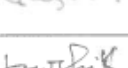
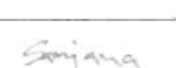

Registration

Consultation of Environmental & Social Systems Assessment (ESSA)

Venue : RDEC Bhaban, Level-12, LGED HQ, Dhaka-1207.

Date : 25/04/2018

Time : 10:00am to 01:15pm

Sl. No.	Name & Designation	Organization	E-mail ID	Signature
1	Mr. Md. Abadat Ali Executive Engineer	LGED HQ Agargaon, Dhaka	-	
2	Mr. Md. Banda Hafiz DTL, PDA-RCIP	LGED HQ Agargaon, Dhaka	-	
3	Dr. M. Khurshed Alam Chairman	Bangladesh Institute of Social Research-BISR Trust	bisr@agnionline.com khurshedbisr@gmail.com	
4	Mr. Md. Zahidul Islam	EQMS	zahidul.islam@eqms.com.bd	
5	Mr. Md. Shehab Uddin	World Bank	-	
6	Mr. Kazi Shahazada Shahanewaz Hossain	World Bank	khossain@worldbank.org	
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8	Ms. Radia Ruhul	World Bank	rohee@worldbank.org	
9	Mr. Md. Towshikur Rahman	World Bank	mr Rahman20@worldbank.org	
10	Ms. Sanjana Sayannita	World Bank	-	
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