



**Local Governance Support Project- Phase 3 (LGSP-3)**  
**Environmental and Social Management Framework (ESMF)**

**FINAL DRAFT**  
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**Local Government Division (LGD)**  
**Ministry of Local Government, Rural Development and Cooperatives (MoLGRD&C)**  
**Peoples Republic of Bangladesh**

The Environmental and Social Management Framework (ESMF) of Local Governance Support Project- Phase 3 (LGSP-3) has been prepared by PMU (Project Management Unit), Local Government Division (LGD), Ministry of Local Government, Rural Development and Cooperatives (MOLGRD&C) of the Government of the Peoples Republic of Bangladesh.

Public consultations were conducted through field visits and stakeholders' meetings. Field feedback has been gathered through workshops and meetings with District Administrators and members of UP Functionaries. Annual assessment reports, safeguard audit information, Environmental Management Framework (EMF) of Municipal Governance and Services Project (MGSP) and other relevant documents have been analyzed as secondary material.

## **EXECUTIVE SUMMARY**

Local Governance Support Project- Phase 3 (LGSP-3) is the follow up project of LGSP-II that will be implemented by the Local Government Division (LGD) under the Ministry of Local Government, Rural Development & Cooperatives (MLGRD&C) of the Government of Bangladesh. LGSP-3 has been designed for all Union Parishad (UP)s and few selected Paurashava (PS)s in Bangladesh. The project duration will be from January 1, 2017 to December 31, 2021 and jointly financed by the Government of Bangladesh and the World Bank (WB). The project development objective is to institutionalize the formula-based UP fiscal transfer system and introduce Expanded Block Grants (EBG) to Pourashavas on a pilot basis. The components are: (a) Institutionalization of UP Fiscal Transfers; (b) Audit & Performance Assessments and Management Information Systems (MIS); (c) Piloting Expanded Block Grants (EBGs) to Pourashavas; and (d) Capacity Building and Project Implementation Support.

To enhance positive environment and social outcomes and to mitigate adverse environmental impact, LGSP-3 will ensure environmental and social safeguard compliance under its Environmental and Social Management Framework (ESMF). According to ESMF, environmental & social assessment and the mitigation of negative impacts are essential part of LGSP-3 during Scheme selection, design, implementation and monitoring.

The World Bank Policy, OP/BP 4.01 Environmental Assessment will be triggered here. It is considered to be the umbrella safeguard policy to identify, avoid, and mitigate the potential negative environmental and social impacts associated with Bank lending operations. The Bank classifies the proposed LGSP-3 into three major categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts. The categories are Category A, Category B and Category C.

The key principles include community consultation before the selection of specific Schemes about their objectives, scopes, and any temporary & permanent environmental and social implications. All proposed Schemes will be verified to avoid Schemes under negative list by the UPs/PSs. Proposed Schemes will be subjected to environmental and social screening in order to identify all potential environmental & social issues and prevent execution of Schemes that would cause significant negative impacts on the environment and people.

The Ward Committee (WC) or Ward Level Coordination Committee (WLCC) will carry out the Environmental and Social screening of each Scheme using the Screening Form-A (2.1 & 2.2) for both the environment and social issues for Union Parishad (UP) and Paurashava (PS) respectively. No further environmental analysis or action will be required for 'C+' category Schemes having insignificant environmental impact. 'C' category Schemes will need to minimize environmental impacts taking appropriate mitigation measures. 'B' category

schemes having larger and more complex impact will be rejected in case of Union Parishad and will go for an Initial Environmental Examination (IEE) in case of Paurashava to incorporate the recommended mitigation measures identified during screening process into the Scheme design. 'A' category schemes having significant environmental risks will not receive funding under the LGSP-3.

The UPs and PSs will not select Schemes that may require land acquisition and will try to keep the development works limited to improvement of the existing infrastructure and use their own or other public lands to build new Schemes. If public land is in use for household purpose, community will motivate to hand over considering the greater welfare of the society. If the public land is in use of poor household and vital for livelihood; some kind of socio-economic rehabilitation will be provided by the UPs/ PSs. Where use of private land is essential for critical Schemes, UPs/PSs may seek voluntary contribution from the concerned landowners. In critical situation, traditional practice may often be used for private land donation to compensate for losses faced by marginal; larger landowners contribute portions of land from the adjacent plots sufficient enough to turn the bullock-powered tillers (locally known as ewaz). A MoU will be signed with the private land contributors and UPs/PSs to ensure public access for community based Schemes.

The Scheme Supervision Committee (SSC) will inspect implementation progress using an Implementation Review Form-B and if there are problems, will ask the WC/WLCC to take remedial measures and follow up until they are implemented. The SSC will again review the completed Scheme while preparing the completion report by filling up Form-C. The IEE/Form-D will be filled in by the PS Engineer only for Category B Schemes, and will be reviewed sample basis by the LGD Senior Environmental and Social Safeguard Specialist. All these forms will be kept in the Scheme file at the UP/PS offices where those will be reviewed in the monthly UP/PS meetings and, if necessary, further actions will be followed.

PMU-LGD will develop a Grievance Redress Mechanism (GRM) to address grievances and complaints about any irregularities in the implementation of the provisions adopted in the ESMF.

Environmental and social impacts and mitigation measures will be an integral part of review and monitoring of Schemes through the reporting chain involving the WC, WLCC, SSC, PMU-LGD, WB and other Development Partners. Independent audit also will be conducted annually. UPs/PSs will regularly aware community on safeguard compliances to ensure the proper implementation by arranging at least one event annually.

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## ABBREVIATIONS AND ACRONYMES

BARD	Bangladesh Academy for Rural Development
BBG	Basic Block Grant
BGCC	Block Grant Coordination Committee
CHT	Chittagong Hill Tracts
DC	Deputy Commissioner
DCC	District Coordination Committee
DDLG	Deputy Director, Local Government
DF	District Facilitator
DOE	Department of Environment
DPD	Deputy Project Director
DPHE	Department of Public Health Engineering
EMP	Environmental Management Plan
EMIS	Environmental Management Information System
ESMF	Environmental and Social Management Framework
FGD	Focus Group Discussion
HFL	Highest Flood level
SEC	Special Environmental Clause
GoB	Government of Bangladesh
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IDA	International Development Association
IEC	Information, Education and Communication
IEE	Initial Environmental Examination
IP	Indigenous People
IPP	Indigenous Peoples Plan
LGD	Local Government Division
LGED	Local Government Engineering Department
LGSP	Local Governance Support Project
LGSP-II	Second Local Governance Support Project
LGSP-3	Local Governance Support Project-Phase-3
M&E	Monitoring & Evaluation
MGSP	Municipal Governance and Support Project
MIS	Management Information System
MLGRD&C	Ministry of Local Government, Rural Development and Cooperatives
MoU	Memorandum of Understanding
NILG	National Institute of Local Government
NPD	National Project Director
OM	Operational Manual
OHS	Occupational Health and Safety
OP	Operational Policy

OP 4.01	Environmental Assessment
PS	Paurashava
RDA	Rural Development Academy
SEC	Special Environmental Clauses
SSC	Scheme Supervision Committee
UDD	Urban Development Directorate
UNCDF	United Nations Capital Development Fund
UNDP	United Nations Development Programme
UNO	Upazilla Nirbahi Officer
UP	Union Parishad
URT	Upazila Resource Team
UZP	Upazila Parishad
WB	World Bank
WC	Ward Committee

# **1. INTRODUCTION**

## **1.1 Background Information**

1. The Union Parishad (UP) and Pourashava (PS) are the lowest government administrative tier in Bangladesh responsible for the rural and urban local governance respectively. The Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C) conducted a number of pilot projects to explore the initiatives on fiscal devolution and reforms of local government system with dynamic community participation. Based on the positive results of those projects, the Local Governance Support Project (LGSP) was implemented from July 2006 to December 2011 under the funding agencies of the World Bank, UNCDF, UNDP, DANIDA and the European Union (EU). Second Local Governance Support Project (LGSP-II) as a follow up project of LGSP is being conducted from July 2011 to June 2017 financed by the World Bank. A number of studies have been conducted to assess the achievements of LGSP and LGSP-II, the findings of all the studies suggest the successful achievement of the objectives. The biggest impact of LGSP was to bring in a change in the attitude of the citizens towards the UPs. LGSP-II has strengthened the accountability of local governance system providing services that meet community priorities, supported by an efficient and transparent fiscal system. To institutionalize the formula-based UP fiscal transfer system and introduce Expanded Block Grants (EBG) to Pourashavas on a pilot basis. LGSP-3 has been designed with all UPs and few selected Pourashavas in Bangladesh.

## **1.2 Project Development Objective and Components of LGSP-3**

2. The project development objective is to institutionalize the formula-based UP fiscal transfer system and introduce Expanded Block Grants (EBG) to Pourashavas on a pilot basis. The components are: (a) Institutionalization of UP Fiscal Transfers; (b) Audit & Performance Assessments and Management Information Systems (MIS); (c) Piloting Expanded Block Grants (EBGs) to Pourashavas; and (d) Capacity Building and Project Implementation Support.

3. ESMF is required for the block grant component, as Local Governments have been using these grants for the provision of small-scale rural community infrastructures, such as rural roads, culverts, footbridge, drainage, small-scale irrigation facilities, water and sanitation facilities etc.

### **1.3 Assessment of Second Local Governance Support Project (LGSP-II)**

#### **1.3.1 Background Information**

4. The Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperatives Division conducted a number of pilot projects to explore the initiatives on fiscal devolution and reforms of local government system with dynamic community participations. Based on the positive results of those projects, the Local Governance Support Project (LGSP) and LGSP-II under the aegis of the World Bank, UNCDF, UNDP, DANIDA and the European Union. A number of studies have been conducted to assess the achievements of LGSP and the findings of all the studies suggest the successful achievement of its objectives and resource transfers to the UPs were increased by more than four times. The biggest impact of LGSP was to bring in a change in the attitude of the citizens towards the UPs. The UP officials have also experienced an enhanced autonomy along with increased financial resources made available to them. In spite of that, much remains to be achieved, especially in the areas of the policy and institutional developments at the multiple administrative levels of the Government.

5. The project development objective (PDO) is to strengthen Union Parishads (UP) to become accountable and responsive, supported by an efficient and transparent fiscal system.

6. The main beneficiaries of the project are 4553 Union Parishads of Bangladesh and the population of approximately 130 million under those UPs. The other beneficiaries are the related agencies responsible for policymaking, regulating and managing of local government system namely Local Government Division (LGD), the Comptroller and Auditor General (CAG) and the National Institute of Local Government (NILG), Bangladesh Academy for Rural Development (BARD), Rural Development Academy (RDA).

#### **1.3.2 Environmental and Social Safeguard Issues**

7. According to the project financial policy, the GoB needs to assess potential environmental and social safeguard issues in project preparation, selection & implementation of Schemes and take appropriate measure to mitigate negative impact. Environmental and Social Management Framework (ESMF) has been prepared in 2006 for supporting UP and local communities to deal with potential environmental and social safeguard issues that might arise during implementation of land based Schemes in LGSP. That ESMF has been revised based on feedback from UP functionaries, communities and government officials in 2011. ESMF complies with the World Bank's operational policies in Environmental Assessment (OP 4.010, Involuntary Resettlement (OP 4.10) that is generally applied for land based Schemes.

8. Most of the Schemes are relatively small and do not have possibility to do any significant negative impact on environment and society. Still in order to avoid any potential adverse environmental and social impact, all prospective Schemes are subjected to be screened before execution.

### **1.3.3 Status of Environmental Assessment and Implementation**

#### **1.3.3.1 Types of land based Scheme**

9. The land based Schemes are mainly considered for the environmental and social safeguard compliance. Most of the Schemes are land based and required screening in LGSP-II. The land based Schemes have been divided into four categories namely newly constructed, improved, renovated and other types of Schemes.

#### **1.3.3.2 Disclosure of information sharing**

10. Union Parishad Operational Manual (UPOM) has provision to do open budget sharing meeting in April of each year to discuss in-detail with the community. The UP chairman chairs the meeting and distributes printed copies of draft budget among participants. There is provision to display notice board at each UP where the current budget should be displayed as a part of information sharing. Audit data says that that the statuses of disclosure of information of UPs are in increasing trend and near to 100% in FY 2014-15. It indicates that status of good governance in improved trend under LGSP-II.

#### **1.3.3.3 Scheme procurement system**

11. There are four procurement method at UPOM namely community procurement, direct purchase procurement, Request for Quotation (RFQ) and Open Tender Method (OTM) procurement procedures. Procurement procedure depends upon the size of the Scheme in terms of monetary value. RFQ procurement method has been increased along with the documents preservation and system maintenance. In FY 2014-15, around 98.9% UPs have followed RFQ method. OTM is not increasing remarkably. The reason beyond it is less number of Schemes that value more than BDT 5 lac. Only 1.3% Schemes in FY 2014-15 followed the OTM method which was done by 9.1% UPs. Within 9.1% UPs, 80% UPs have followed OTM flow chart and 84% has preserved all relevant documents. Refresher training can help UPs to catch the procurement system properly.

#### **1.3.3.4 People's participation for planning and monitoring**

12. Increasing capacity and effectiveness of local bodies and introducing bottom-up participatory planning are two prime working agenda at LGSP-II. Formation of WC, SSC and GRC are effective tools to work as a channel between community and local authority. 100% UP has active WC and SSC now. Grievance Committee formation is in increasing trend. FY 2014-15 safeguard audit report said that 94% SSC consisted of representative from UNO office.

#### **1.3.3.5 Environmental and social safeguard screening**

13. Practice of screening is increasing at UP levels. More than 62% land based Schemes are fully screened by filling up screening 'Form-A' and preserved at file in FY 2014-15. As a result, the 'not filled up' status is decreasing sharply. On the other hand, status of 'partially filled up' of 'Form A' is in increasing trend. Main reasons of it are long list of questions (44 in no.) and containing some technical questions (like, quantity of pollutant) those are difficult to understand by WC/SSC.

#### **1.3.3.6 Review of Scheme implementation**

14. Status of 'Form B' is increasing gradually (66% in FY 2014-15) resulting to 'not filled up' status in decreasing rate. Still the partially fill up rate is high which is alarming and need to verify. Here the main reason is level of technical understanding and questions related to Limited Environmental Assessment (LEA) which is not included in Bangla UPOM.

#### **1.3.3.7 Environmental category of land based Scheme**

15. There are four categories of Scheme at UPOM namely 'C+', 'C', 'B' and 'A'. 'C+' category does not need any screening process. On the other hand; 'A' category Scheme is not eligible to implement under LGSP-II as those have significant negative environmental impact. According to ESMF, 'C' category Schemes need to go through simple environmental screening system and 'B' through LEA process. Most of the non-land based Schemes are considered as 'C+' category and exempt from environmental screen system. In FY 2014-15, all the Schemes are under 'C' category and followed the screening process by filling up Form A & B. So, LEA has not been needed to be conducted for any of those.

#### **1.3.3.8 Satisfaction level of community on environmental impact**

16. Most of the community people are fully satisfied on environmental impact for land based Schemes. On the other hand; 'unsatisfied' status on environmental impact is continuing zero status over the implementation period of LGSP-II. But it is remarkable that

percentage of moderately satisfied people has increased in FY 2014-15. The main reason of is that people are now also concerned about the quality of implementation.

#### **1.3.3.9 Scheme based environmental considerations during design and implementation**

17. LGSP-II always facilitates UP to incorporate certain features during design phase of all land based Schemes. This helps to reduce some of the possible adverse environmental impacts of Schemes. A good number of tube wells have been distributed among community people to supply safe drinking water to rural community. Water extracted by all deep tube wells has been tested to verify arsenic contamination status.

#### **1.3.3.10 Status of woman's participation**

18. Safeguard audit report of FY 2014-15 shows that WCs of 100% UP have 30% (at least 2 women) women membership. It also gives information that SSC of 98% UP has 30% women membership. So, the status of women participation has tremendously improved at various committees during the reporting period. The report informed that 3 WCs of each UP are chaired by the woman UP members in case of 31% UPs. So still there is need for more effort in case of women's leadership to courage to lead.

#### **1.3.3.11 Sources of used land**

19. Usually lands are used from different sources, central government, local government, private owners etc. Considering social safeguard issues, LGSP-II prefers to use government sources of land. In case of using private land, there is strong provision to pay compensation if the owner does not want to provide voluntarily. Percent of central Government's land use is increasing highly in each year. In FY 2014-15, 10% and 16% UP have used local government and private owned land respectively for implementation. Number of private land donors is increasing gradually. In FY 2014-15, total 3201 private land owners have donated land for 717 numbers of Schemes. There is no case of compensation of private land over the last three years that shows that satisfaction level of community people on LGSP-II interventions. Almost all of the private lands are used for tube wells, toilet, irrigation channel etc. which are appreciated by the owners. People are willing to pay for above mentioned items and no question of compensation. There was no case of compensation during reporting period.

#### **1.3.3.12 Participation of small ethnic group**

20. Some small ethnic groups are living in Bangladesh mainly at hill tract areas. In FY 2014-15, total 405 Schemes have been implemented for the small ethnic groups that are 4.6% of total Scheme. Within 405 Schemes, around 90% (365 in no.) are implemented by the small ethnic group. Percent of members of WC from the small ethnic groups are 9%, 5%, 8% and

8% in FY 2011-12, FY 2012-13, FY 2013-14 and FY 2014-15 respectively compared to the total country level status. But the representation of ethnic community and their participation at meeting was 97% in FY 2014-15 for all cases.

### **1.3.3.13 Status of Grievance and Redress Mechanism**

21. Under the GRM, Grievance Redress Committee (GRC) has been established at each UP to resolve the complaints towards ensuring the transparency. Total 26, 16, 78 and 73 numbers of complaints have been resolved by GRC on FY 2011-12, FY 2012-13, FY 2013-14 and FY 2014-15 respectively. Till FY 2014-15, there was no recorded complaint against SSC. Complaints against WC were 6 in FY 2011-12, 57 in FY 2013-14 and 4 in FY 2014-15.

### **1.3.4 Lesson Learnt**

22. Following are some key lesson learning of the LGSP-II-
- LGSP-II covers 4553 UP situated all over the Bangladesh. Considering the volume, making sensitized to all stakeholders and the proper application of related activities of environment and social safeguard compliance are a big challenge and time consuming issue. Need additional assistance to carry on the work.
  - Considering the knowledge level of WC and SSC, all forms prepared for the screening, monitoring, land use etc. should be simple and easy.
  - Due to lack of professional man power at UP level, calculation of compensation for land acquisition is not properly possible for rural areas. So, compensation against land contribution is not properly possible at UP level.
  - UP Bodies are paying more importance on quantity achievement through Scheme implementation and less priority to quality following the safeguard guideline. Need to include a safeguard related point for performance assessment.
  - Safeguard should be considered from the starting phase, from planning, designing, implementing, monitoring and evaluation. UP cannot mitigate many environmental safeguard issues due to lack of technical expert at union level to design/plan safeguard friendly Scheme. Need to ensure technical assistance for the UP.
  - Sufficient training, refresher training, awareness related activities, development and dissemination of IEC materials on safeguard component is essential to ensure proper implementation.
  - IEE is also not possible to implement at UP level due to lack of skilled and sufficient manpower.

### **1.3.5 Recommendation**

23. Following are some key recommendations for LGSP-3-
- As WC and SSC are the primarily responsible groups for the both environmental and social safeguard review, they need additional training and refresher training along with the UP bodies to understand the issue and to implement properly.
  - UP needs technical support to include necessary items during design phase to mitigate adverse environmental and social impact.
  - UP evaluation system for PBG grant allocation can include safeguard related indicators to make the UPs accountable for the issue.
  - All the safeguard related forms should be more understandable for all tiers. A shorter version of framework can be used to ensure the issues as checklist.
  - At present only one UP is audited per upazilla on safeguard issue which should be increased (at least 5% UP) on random basis.
  - Budget for clearance from Department of Environment should be allocated as separate line item.
  - A specific budget line item as ‘cost for EMP implementation’ should be allocated at new phase of the project.

### **1.3.6 Conclusion**

24. Considering the new horizon, repeated training on safeguard component for the stakeholders and awareness raising initiatives for the community by appropriate media can foster the issue. Still the procedure and framework should be more user friendly for the users.

## **1.4 Basis of the ESMF**

25. The Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C) prepared an Environmental and Social Management Framework (ESMF) in 2006 for supporting the Union Parishads and local communities to deal with potential environmental and social safeguards issues that may arise in the use of fiscal transfers in the Local Governance Support Project (LGSP) for land based Schemes. That ESMF was revised before preparing the Second Local Governance Support Project (LGSP-II) in June 2011. In 2016, Local Governance Support Project- Phase 3 (LGSP-3) has been started to design that arise the need of second revision of existing ESMF. There will be no major changes for LGSP-3 and Schemes are classified as Category B. This ESMF has been prepared on feedback from UP functionaries, communities and government officials, District Facilitators during consultations carried out in 2015-2016.

26. According to the project financing policy, Government of Bangladesh (GOB) is required to assess potential environmental and social safeguard issues in project

preparation and adopt and implement appropriate measures to mitigate them. The provisions proposed in the ESMF are to comply with the World Bank's operational policies on Environmental Assessment (OP 4.01) that will be generally applied in land-based projects.

27. The Schemes that are most likely to be undertaken with relatively small basic block grants (BBGs) are unlikely to cause environmental and social impacts of any significant consequences. In order to avoid any potential adverse environmental impacts, all prospective Schemes will be subject to environmental screening in order to prevent execution of works with significant negative environmental impacts; decrease potential negative impacts through adaptations in design, location or execution; prevent or mitigate negative cumulative impacts; enhance the positive impacts of Schemes; and prevent additional stress on environmentally sensitive areas. Assessment indicated that Schemes are generally constructed on public lands.

28. New Schemes are also likely to be built on public lands, or sometimes on lands contributed by the beneficiary communities. As such, land acquisition or involuntary displacement may not be necessary. It is however recognized that this could displace non-titled persons/households and encroachers where they happen to be using public lands. Where the selected Schemes are of critical nature and public lands are unavailable, it is expected that the beneficiary communities would make the lands available through voluntary contribution/donation without compensation. There could however be Schemes, such as roads, drainage, canals, water point etc. which may require lands from landowners. Donated lands for such Schemes should be acknowledged by the local authority. On the other hand, some cases to continue community's access need a Memorandum of Understanding (MoU). In critical situation, a traditional practice may often be used to compensate for losses faced by marginal landowners: larger landowners contribute portions of land from the adjacent plots sufficient enough to turn the bullock-powered tillers (locally known as *ewaz*).

## **1.5 Stakeholder's Consultation**

### **1.5.1 Introduction**

29. To strengthen Union Parishads (UP), to become accountable and responsive, supported by an efficient and transparent fiscal system, the Local Government Division (LGD) of the Ministry of Local Government, Rural Development and Cooperatives Division is implementing the Second Local Governance Support Project (LGSP-II). It is the follow up project of LGSP. The Ministry of Local Government, Rural Development and Cooperatives (MLGRD&C) had prepared an Environmental and Social Management Framework (ESMF) in 2006 for supporting the Union Parishads and local communities to deal with potential environmental and social safeguards issues that may arise in the use of fiscal transfers in the Local Governance Support Project (LGSP) for land based Schemes. That ESMF had been

revised before preparing the Second Local Governance Support Project (LGSP-II) in June 2011. In 2016, Proposal development of Local Governance Support Project- Phase 3 (LGSP-3) has been started that arise the need of second revision of existing ESMF. There will be no major changes for LGSP-3 and Schemes are classified as Category B. This ESMF has been prepared on feedback from UP functionaries, communities and government officials, District Facilitators during consultations carried out in 2015-2016.

### 1.5.2 Consultation with the community

30. Community consultation was conducted at Rupganj Union under Narayanganj District in March 2016 to find out community's opinion about ESMF implementing for LGSP-II. Around 50 community people from different socio-economic classes were present there including the WC, SSC and GRC members.



Major discussion issues and recommendations on Environmental and Social Safeguards

- All most all of the participants could understand the environmental and social issues and need of considerations
- Community people showed interest on community based larger Schemes for greater benefit. They also emphasized to ensure access of all category people on community based Schemes, like community based drinking water system.
- Participants shared interest to have care taker and form management group for community based larger Schemes.
- Both WC and SSC expressed that screening and monitoring forms are complex for themselves. They asked for simple forms.
- Both WC and SSC asked to involve Secretary of UP to the Scheme review process.

### 1.5.3 Consultation with the Union Parishad

31. A day long consultation meeting was conducted with all the members of Nagori Union Parishad under Gazipur district in April 2016.

Major discussion issues and recommendations on Environmental and Social Safeguards

- All the members of Union Council including Chairman, Secretary were found oriented on basic Environmental and Social Safeguard Component. The main reason being training imparted on safeguard component.



- UP preserved all the filled up forms and documents at Scheme file. They had been motivated that environmental and social safeguard components are integral part of their Scheme implementation.
- Still UPs find difficult to motivate all the WC, SSC and GRC committee active at the field. Because there is no provision of remuneration for their work in this regard and whereas the community people remain most of the time with their daily business.
- UP find it difficult to get assistance from upazilla Engineer as much as they need. Because all the engineers are busy for several responsibilities.
- UP has now adequate knowledge on verification and documentation of Scheme related information for contractor's payment and preserve documents for future audit.
- Presently only one UP is being audited per upazilla for safeguard component. So the UPs that have experienced for safeguard audit is more oriented on environmental and social safeguard component. So, more UPs should be under safeguard audit in future.
- Women UP members feel empowered to be involved with community level groups. They are getting more opportunity to be involved and to serve for the betterment of the community.

#### 1.5.4 Consultation with the District Administrators

32. A two-day workshop on Sharing Experiences in Implementation of Second Local Governance Support Project was held on 23 and 24 March 2016 at BIAM Foundation, Dhaka. Experiences of ESMF implementation, challenges, limitations and ways out to improvement were discussed in detail at that workshop. In all 150 officials {Deputy Director of Local Government and District Facilitators of both LGSP-II and Union Parishad Governance Project (UPGP)} attended the workshop.



Major discussion issues and recommendations on Environmental and Social Safeguards

- Participants raised about the need of adequate training, orientation and awareness related activities to be included for the better implementation of safeguard component at LGSP-3. Training should be organized for the District administration, WC, SSC, GRC, UP Functionaries.
- Both the land based and non-land based Schemes should be under environment and social safeguards framework. Because sometimes non-land based Schemes may have negative environmental impact, like distribution of pesticide spray machine.

- Scheme implementation must follow all the steps of environment and safeguard management framework to ensure possible mitigation measures (such as arsenic test, highest flood level of the locality, safe distance from pollution etc.)
- Almost all the participants asked for having adequate support from Technical Officer for UP level to ensure mitigation measures from the design phase of Schemes.
- All the assessment forms of ESMF of LGSP-II should be simpler considering the knowledge level of WC and SSC.
- There should have some motivational work for WC, SSC, GRC to work sincerely as volunteer. Need to select the right persons for those committees are important. All the committee members can be selected during Ward Shava through open voting system.
- Prize and appreciation for better ESMF implementers can foster the component.

### **1.5.5 Conclusion**

33. Environmental and social issues are now well known to the community people and Local Government but there is still gap on concept of safeguard component for development arena. Proper capacity development and orientation can make people equipped on it.

### **1.6 Objectives of ESMF**

34. The ESMF provides general policies, guidelines, codes of practice and procedures to be integrated into the implementation of LGSP-3. Consistent with the existing central legislation and the World Bank's operational policies, the objective is to help ensure that activities under the proposed project will:

- Enhance positive environmental and social outcomes of the activities implemented under the individual Schemes;
- Prevent negative environmental impacts as a result of either individual Schemes or their cumulative effects;
- Identify and mitigate adverse impacts that Schemes might cause on the environment and people, including loss of livelihood by the poor and vulnerable; and
- Ensure compliance with the World Bank's relevant environmental and social safeguard policies.

## **2. POLICY FRAMEWORK**

35. The proposed LGSP-3 will be implemented in compliance with applicable existing environmental laws and regulations. Bangladesh has an environmental legal framework that is conducive to both environmental protection and natural resources conservation. A wide range of cross sectoral environment and social related laws and regulations are in place in

Bangladesh and few of those may apply to activities supported by the LGSP-3, institutional arrangement and national and sub-national level, and World Bank safeguard policies.

## **2.1 National Environmental Laws and Regulations**

### *Union Parishad Act 2009 and Pourashava Act 2009*

36. Those acts provide contents, structures and other relevant issues such as water supply, communication, waste management etc. It also recognizes the public disclosure, inclusion, participation and environmental protection in the development agenda. The union parishad has provision to form ward committees and pourashava the town committee involving all types of stakeholders, women and poorer community for participatory development.

### *National Environmental Policy 1992*

37. The concept of environmental protection through national efforts was first recognized and declared in Bangladesh with the adoption of the Environmental 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 associated with all international environmental initiatives to the maximum possible extent.

### *Environment Conservation Rules (ECR) 1997 amended 2003*

38. 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. However, the rules provide the Director General a discretionary authority to grant '*Environmental Clearance*' to an applicant, exempting the requirement of site/location clearance, provided the DG considers it to be appropriate. Presently, "EIA Guidelines for Industries" published by the Department of Environment and the "Environment Conservation Rules 1997" are the formal documents providing guidance for conducting Environmental Assessment. 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.

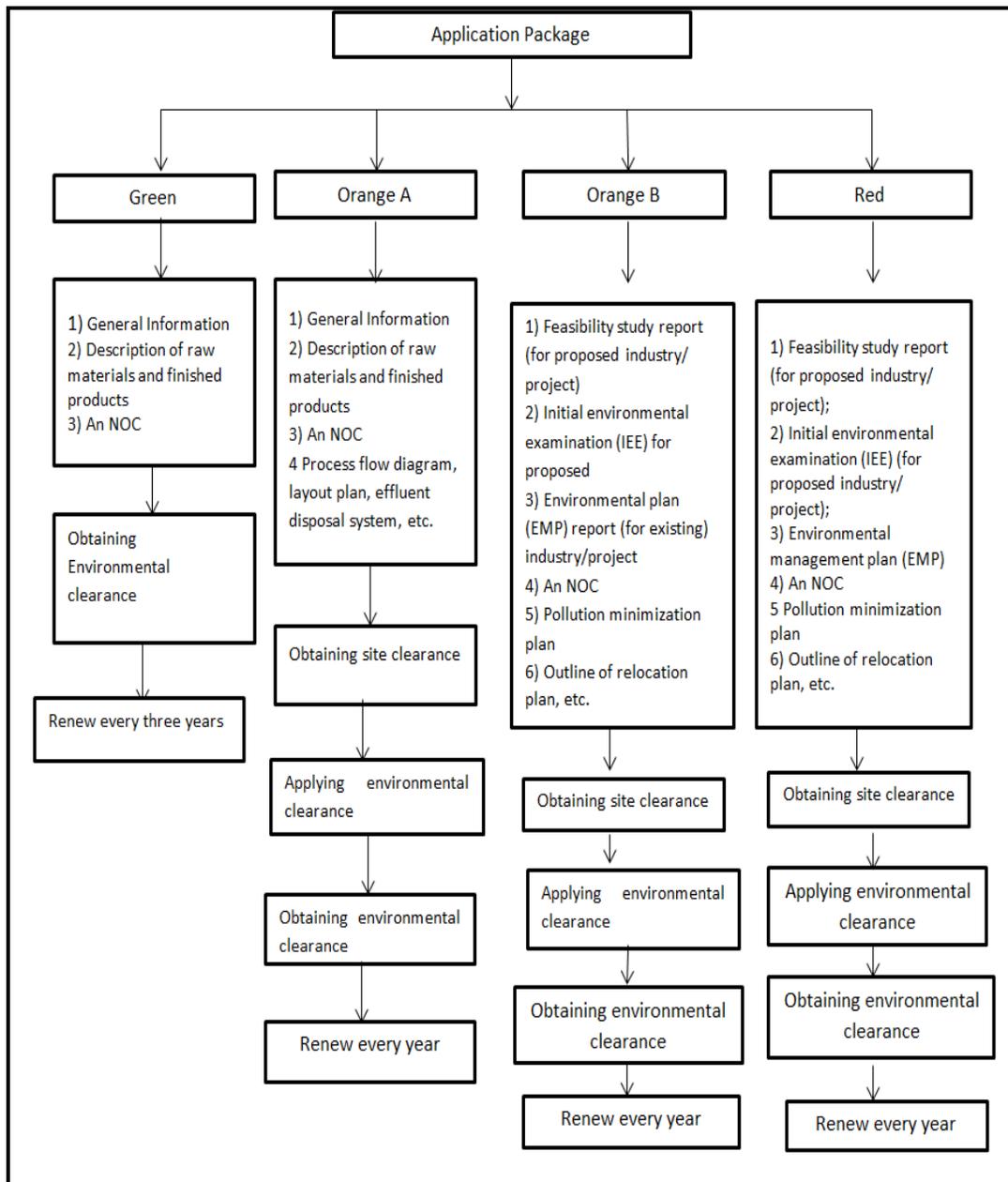
39. The first step of obtaining *Environmental Clearance* for the project the proponent is to apply for it in prescribed form, together with a covering letter, to the Director/Deputy Director of respective DoE Divisional Offices. The application should include a project feasibility study report, the EIA report, *No Objection Certificate* (NOC) of the local

authority; Mitigation Plan for minimizing potential environmental impacts; and appropriate amount of fees in 'treasury chalan' (in the present case the amount is BDT 50,000). The DOE authority reserves the right to request additional information, supporting documents, or other additional materials for the proposed project. Under the conditions specified in the Environment Conservation Rules-1997, the DoE Divisional Authority must issue environmental site clearance certificates within 60 working days from the date of submitting the application, or the refusal letter with appropriate reasons for such refusal. The clearance issued remains valid for a one-year period and is required to be renewed 30 days prior to its expiry date.

40. Environment Conservation Rules-1997 ensures the right of any aggrieved party to appeal against the notice order or decision to the appellate authority. The appeal should be made to the appellate authority with clear justification and the attested copy of the specific notice, order, or decision of the respective DoE office against, which the appeal is to be made. Prescribed fee is to be paid through treasury Chalan of BDT 50,000 and the relevant papers for the appeal must be placed.

41. Rule 7 of Environment Conservation Rules (ECR) has classified the projects into following four categories based on their site conditions and the impacts on the environment; (a) Green, (b) Orange A, (c) Orange B and (d) Red. Various industries and projects falling under each category have been listed in schedule 1 of ECR 1997. According to the Rules, Environmental Clearance Certificate is issued to all existing and proposed industrial units and projects, falling in the Green Category without undergoing EA. However, for category Orange A and B and for Red projects, require location clearance certificate and followed by issuing of Environmental Clearance upon the satisfactory submission of the required documents. Green listed industries are considered relatively pollution-free, and therefore do not require *site clearance* from the DoE. On the other hand, Red listed industries are those that can cause 'significant adverse' environmental impacts and are, therefore, required to submit an EIA report. These industrial projects may obtain an initial *Site Clearance* on the basis of an IEE based on the DoE's prescribed format, and subsequently submit an EIA report for obtaining *Environmental Clearance*. Figure 1 shows the process of application leading to environmental clearance for all four categories of projects.

**Figure 1: Process of application for environmental clearance in Bangladesh**



NOC = No Objection Certificate, usually obtained from local government.

(Source: The Environment Conservation Rules (ECR), 1997, Bangladesh)

Public Procurement Rule (PPR), 2008

42. 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 Labor Act, 2006

43. This Act pertains to the occupational rights and safety of factory 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.

National Land-use Policy, 2001

44. The Government of Bangladesh has adopted national Land use Policy, 2001. The salient features of the policy objectives relevant to the proposed 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.

GOB Laws on Land Acquisition

45. The principal legal instrument governing land acquisition in Bangladesh is the Acquisition and Requisition of Immovable Property Ordinance, 1982(Ordinance II of 1982 with amendments up to 1994) and other land laws and administrative manuals relevant to land administration in Bangladesh. According to the Ordinance, 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 provided that no property used by the public for the purpose of religious worship, graveyard and cremation ground. The 1982 Ordinance 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) 50% premium on the assessed value (other than crops) due to compulsory acquisition. The 1994 amendment made provisions for payment of crop compensation to tenant cultivators.

*Bangladesh National Building Code, 1993*

46. 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.

47. 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. Section 1.4.1 of chapter-1, part-7 of the Bangladesh National Building Code (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”. Part-7, Chapter -1 of the 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 bye-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).

48. 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. Every floor hole shall be guarded by either a railing with toe board or a hinged cover. 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 entrance to ramp, stairway or fixed ladder. The precautions shall also be taken near the open edges of the floors and the roofs”.

## **2.2 World Bank Safeguard Policies**

49. The objective of the World Bank policy is to prevent and mitigate undue harm to people and their environment in the development process. Safeguard policies provide a platform for the participation of stakeholders in project design, and act as an important instrument for building ownership among local populations. The effectiveness and development impact of projects and programs supported by the Bank has substantially increased as a result of attention to these policies. The World Bank has ten environmental, social, and legal safeguard policies. The relevant policy for environmental safeguard is OP/BP 4.01 Environmental Assessment. Beside it, the project will have simple guideline to use volunteer public land contribution to acknowledge and to ensure access of all kind of people.

50. Operational Policies (OP) are the statement of policy objectives and operational principles including the roles and obligations of the Borrower and the Bank, whereas Bank Procedures (BP) is the mandatory procedures to be followed by the Borrower and the Bank. Apart from these, the IFC guidelines for Environmental Health and Safety have been adopted by the World Bank Group which is also relevant for environmental protection and monitoring. In addition to that the Policy on Access to Information of World Bank also relates to environmental safeguard. The environmental safeguard and access to information policy as well as the IFC guidelines are discussed below:

### *OP/BP 4.01 Environmental Assessment*

51. This policy is considered to be the umbrella safeguard policy to identify, avoid, and mitigate the potential negative environmental and social impacts associated with Bank lending operations. In World Bank operations, the purpose of Environmental Assessment is to improve decision making, to ensure that project options under consideration are sound and sustainable, and that potentially affected people have been properly consulted. The borrower is responsible for carrying out the EA and the Bank advises the borrower on the Bank’s EA requirements. The Bank classifies the proposed project into three major categories,

depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts:

Category A: The proposed project is likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works.

Category B: The proposed project's potential adverse environmental impacts on human population or environmentally important areas-including wetlands, forests, grasslands, or other natural habitats- are less adverse than those of Category A projects. These impacts are site specific; few if any of them are irreversible; and in most cases mitigation measures can be designed more readily than Category A projects.

Category C: The proposed project is likely to have minimal or no adverse environmental impacts.

#### OP/BP 4.04 Natural Habitats

52. The conservation of natural habitats is essential for long-term sustainable development. The Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats and their functions in its economic and sector work, project financing, and policy dialogue. The Bank supports, and expects borrowers to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development. The Bank does not support projects that involve the significant conversion or degradation of critical natural habitats.

#### OP/BP 4.11 Physical Cultural Resources

53. Physical cultural resources are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Their cultural interest may be at the local, provincial or national level, or within the international community. Physical cultural resources are important as sources of valuable scientific and historical information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices. The Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects that it finances. The impacts on physical cultural resources resulting from project activities, including mitigating measures, may not contravene either the borrower's national legislation, or its obligations under relevant international environmental treaties and agreements. The borrower addresses impacts on physical cultural resources in projects proposed for Bank financing, as an integral part of the environmental assessment (EA) process.

### **2.3 Implications of National Policies and Regulations on LGSP-3**

54. The Environmental Conservation Rules (ECR) 1997 (DoE, 1997) classifies projects into four categories according to potential environmental impacts: (1) Green; (2) Orange A; (3) Orange B; and (4) Red. Green category projects are those with mostly positive environmental impacts or negligible negative impacts; 'Orange A' category projects are those with minor and mostly temporary environmental impacts for which there are standard mitigation measures; 'Orange B' category project are those with moderately significant environmental impacts; while Red category projects are those with significant adverse environmental impacts. As discussed in Section 3.1, most of the Schemes to be implemented under LGSP-3 would fall either under Orange A or Orange B category; a few would fall under Green category, and none are likely to fall under Red category.

55. For projects categorized as 'Orange B', according to ECR 1997, a feasibility report and an IEE, an NOC from local authority would be required to obtain site clearance and environmental clearance certificate. For projects categorized as 'Orange A', the feasibility and IEE report will not be essential. The BNBC, PPR 2008, Bangladesh Labor Act 2006 outlines guidelines for ensuring worker's health and safety during construction works which would have direct implications in LGSP-3. It would be the responsibilities of the contractors (with supervision of UPs/PSs) to make sure that these guidelines are followed in the workplace environment (where needed).

### **2.4 Implications of World Bank Safeguard Policies on LGSP-3**

56. According to WB Operational Policy (OP 4.01), the nature of environmental assessment to be carried out for a particular Scheme would largely depend on the category of the Scheme. As mentioned earlier, The World Bank Operational Policy (OP) 4.01 classifies projects into three major categories (category A, B and C), depending on the type, location, sensitivity and scale of the project, and nature and magnitude of potential impacts.

57. The Schemes to be implemented under the LGSP-3 do not involve large-scale infrastructure development (e.g. construction of sanitary landfill, water or wastewater treatment plant, major highways). The Schemes would involve either minimum or no involuntary land acquisition. Thus, the Schemes to be carried out do not appear to pose risk of significant adverse environmental impacts. In view of Schemes nature, the overall project is classified as a 'Category B' and the safeguard policy OP/BP 4.01 has been triggered for the proposed operation. The policy has been triggered to ensure that the Scheme design and implementation will be focused on reducing adverse impacts and enhancing positive impacts.

58. It is highly unlikely that any natural habitat formed largely by native plant and animal species will be affected or modified by the Schemes activities to be implemented under LGSP-3 because most of the infrastructure development works are small-scale and will take

place in the built environments of Paurashavas adjacent to various other infrastructures and Union Parishad (UP). However, the ESMF stipulated the code of practice on natural habitat as advance precautionary measures and Natural Habitats (OP/BP 4.04) has been triggered.

59. Also it is unlikely that any designated physical cultural resources will be affected by the Schemes. However, the impacts will be examined as part of the environmental screening/assessment of each Scheme. The ESMF provided criteria for screening and assessment of physical cultural resources. In addition, 'Chance find' procedures conforming to local legislation on heritage would be evaluated that any physical or cultural resources will not be impacted. OP 4.11 (Physical Cultural Resources) has been triggered.

60. The IFC guidelines provides guidance on certain EHS issues which include standards for environmental parameters (ambient air quality, water and wastewater quality, noise level, waste management), hazard and accident prevention, occupational and community health and safety (during commissioning and decommissioning works) etc. These guidelines will be directly applicable to the LGSP project. As a general rule, the IFC guidelines should complement the existing Bangladesh guidelines or standards. In case the Bangladesh guidelines or standards differ from the IFC guidelines, project is expected to follow the more stringent ones.

### **3. ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCEDURE**

61. The environmental and social framework (ESMF) presented here has been prepared based on previous experience and field visits to different UPs and PSs throughout the country, and consultation with all stakeholders including PMU-LGD and WB. The environmental assessment of the Schemes to be implemented under LGSP-3 needs to be carried out following the provisions of the Environment Conservation Rules 1997 (GoB, 1997), and the relevant World Bank Operational Policies (e.g. OP 4.01 Environmental Assessment). The environmental assessment requirements under these provisions vary significantly depending on the category of the Schemes. The ESMF presented here provides guidelines for categorizations of Schemes according to GoB regulations and World Bank policies (see Section 3.1).

#### **3.1 Schemes Types and Categories**

62. The category of a Scheme (according to WB and GOB guidelines) is an important determinant with regard to the requirements of its environmental assessment. The Schemes to be implemented under the LGSP-3 include the following: (1) Road Communication &

Transportation (Improvement of Tertiary and secondary level roads, Tertiary and secondary level culverts and bridges and Footpaths etc.); (2) Water Supply (Tube wells, Water point rehabilitation, Dug Wells and Ring Wells with Hand pumps, Spring protection in hill areas, Community reservoirs, Water harvesting facilities, Water treatment plants and Piped water supplies etc.); (3) Health (Health centers (Dispensaries, Maternity clinics, Laboratories etc.); (4) Sanitation and Waste Management (Public toilets/pit latrines, Soak pits and septic tanks; Sewerage facilities; Composting sites; Waste disposal facilities and Sewage treatment lagoons etc.); (5) Agriculture and Markets (Animal Health Facilities (Vaccination yards, Tick dips etc.); Post-harvest handling facilities; Slaughterhouses and yards; Agro-processing facilities; Construction of market places including Livestock markets; Fish landing sites; Seasonal Earth dams and Terracing in hilly areas etc.); (6) Education (Construction of classrooms etc.); (7) Energy (Solar Power System; Biogas etc.); (8) Natural Resource Management (Afforestation - Community Based projects on public land; Community tree nurseries; Anti-erosion interventions e.g., Slope, Stream and river bank protection with Vetiver; etc.). The Schemes to be implemented in different UPs and PSs under the LGSP-3 along with Environmental Impacts and their Mitigation Measures are presented in Attachment-7.

### **3.2 Scheme Description**

63. For proper environmental assessment, it is important that a Scheme is clearly defined by the project proponent (i.e. UPs and PSs). The key information required for describing a particular Scheme would vary depending on the type of Scheme. The location map of the proposed Scheme should cover the entire physical extent of the Scheme and its surrounding areas; the location of larger Schemes could be identified on the map of the PS and UP (if possible).

### **3.3 Environmental Screening**

64. All the Schemes to be funded under LGSP-3 will be subject to an environmental screening in order to prevent execution of projects with significant negative environmental impacts. The purpose of “environmental screening” is to get a preliminary idea about the degree and extent potential environmental impacts of a particular Scheme, which would subsequently be used to assess the need for further environmental assessment. In view of these objectives, environmental and social assessment and mitigation of negative impacts will be an integral part of selection, design, implementation, and monitoring of the individual Schemes. The following principles will apply in the Scheme selection and implementation process:

- UP/WC and PS/WC/WLCC will undertake *community consultation* before the selection of specific Schemes about their objectives, scopes, and any temporary or permanent environmental & social implications, especially with regard to the use of private and public lands. Community consultations will in particular include the people

who might be affected directly.

- All proposed Schemes will be verified to *avoid Schemes under negative list*. UPs and PSs are responsible to verify the negative list (see Attachment-1).
- The UPs and PSs will not select Schemes that may require *land acquisition* and will try to keep the development works limited to improvement of the existing infrastructure, and use their own or other public lands to build new Schemes.
- All proposed Schemes shall be subjected to environmental and social screening in order to identify all potential environmental and social issues and prevent Schemes that would cause significant negative impacts on the environment and people (Attachment 2.1 and 2.2 will be followed for UP and PS respectively). WC/WLCC will *assess both the environmental and social impact of land based Schemes* to know the impact.
- In case of public land, the Scheme will be preferable. If public land is in use for household purpose, community will motivate to hand over considering the greater welfare of the society. If the land is in use of poor household and vital for livelihood, some kind of socio-economic rehabilitation will be provided by the UPs and PSs.
- Where use of private land is essential for critical Schemes, UPs/PSs may seek *voluntary-contribution* from the concerned landowners.
- In critical situation, traditional practice may often be used for private land donation to compensate for losses faced by marginal; larger landowners contribute portions of land from the adjacent plots sufficient enough to turn the bullock-powered tillers (locally known as ewaz).
- A *MoU will be signed with the private land contributor* and UP/PS to ensure public access for community based Schemes. (attachment 10)
- Environmental and social impacts and mitigation measures will be an integral part of review and monitoring of Schemes through the reporting chain involving the WC, WLCC, SSC, UP, PS, PMU-LGD, World Bank and other Development Partners.

65. Also UP/PS cannot undertake any Schemes that significantly restricts access of community especially the socio economically vulnerable members to common property sources which is the source of their livelihood.

66. Participatory Scheme selection process is as follows:

- 1) Planning (schedule preparation, committee development)
- 2) Primary information collection (community consultation, social mapping, wealth being ranking etc. to understand the community need)
- 3) Ward level meeting (draft Scheme list sharing and updating in presence of at least 5% voter)
- 4) Environmental and Social safeguard screening, assess social impact of land based Schemes
- 5) UP/PS Development planning (segregation of Schemes, priority by respective ward committee and display for the community)
- 6) Publish the 5-year long planning and budget in front of the community people.

### **3.4 Analysis of Alternatives**

67. The primary objective of the “analysis of alternatives” is to identify the location/design/technology for a particular Scheme that would generate the least adverse impact, and maximize the positive impacts. The analysis of alternatives should be carried out by the PSs during formulation of Schemes. The nature of the analysis of alternatives would be different for different Schemes. For example, for a storm drain Scheme, alternative route for the drain, alternative design (e.g. earthen versus RCC drain), and alternative technology (e.g., manual excavation versus mechanized excavation) are important considerations. For a road Scheme, alternative route and alternative design (e.g. bituminous road versus RCC road) are important considerations. In general, for any Scheme, the analysis of alternative should focus on:

- (a) Alternative location or route;
- (b) Alternative design and technology;
- (c) Costs of alternatives; and
- (d) No Scheme scenario.

Based on the guideline presented in the ESMF, the engineers should be able to carry out the “analysis of alternatives” of different Schemes.

### **3.5 Need for Further Environmental Assessment**

68. In general, the environmental screening process identifies what impacts will be generated and what type of mitigation measures will be required for Schemes. Also the screening will help in determining whether a proposed Scheme should be subjected to follow the Environmental Code of Practices (ECoP) (Attachment-12) to mitigate/avoid the impacts or need further detail assessment with preparation of separate environmental management plan. It will be applicable for the Paurashavas. The level of environmental assessment (EA) of a Scheme would primarily depend on the class/category of the Scheme according to OP 4.01 and ECR 1997. As noted earlier (Section 3.1), most of Schemes to be carried out under LGSP-3 could be classified as “Category B” according to OP 4.01; while some of them may

fall under “Category C”. On the other hand, most of the LGSP-3 Schemes are not specifically listed in the Environment Conservation Rules (ECR) 1997; only a few are listed under Category “Orange B”. As discussed in Section 3.1, based on overall environmental assessment carried out as a part this study, it appears that most of these Schemes would fall either under “Orange A” Category or “Orange B” Category, and a few would fall under “Green Category” (e.g., furniture for schools, street light etc.). According to Environment Conservation Rules (ECR) 1997, for Green Category Schemes, no further environmental assessment would be required; for Orange A Category Schemes, no further environmental assessment would be required, but some additional information would be required; for Orange B category Schemes Initial Environmental Examination (IEE) and Environmental Management Plan (EMP) would be required; while for Red Category Schemes, full-scale EIA (including EMP) would be required. No Orange-B category scheme will be implemented by UP resulting to no IEE and IEA will be required for Union Parishad. IEE and EIA will only be applicable for Paurashava.

### **3.6 Mitigation and Enhancement Measures**

69. During construction phase, the overall impact assessment of the proposed Schemes to be implemented at the UPs and PSs reveals that most of the adverse impacts could be minimized or eliminated by adopting standard mitigation measures; there is also scope to enhance some of the beneficial impacts to be generated from the proposed Schemes. This section describes the standard mitigation and enhancement measures that could be applied to the Scheme under LGSP-3. Attachment-7 shows typical activities to be carried out under different Schemes and suggested mitigation and enhancement measures.

70. During the operational phase, the UP/PS (mainly the PSs) will be responsible for the operation and maintenance of the infrastructure to be developed under the LGSP-3. Apart from regular operation and maintenance, a number of issues would require special attention for reducing/avoiding possible adverse environmental impacts. These include regular maintenance and management of storm drains, and proper operation of fish landing sites to reduce risk of water pollution; and proper operation and management of municipal/agro-processing facilities/cattle market/slaughter house because of their potential implications on health and environment.

71. Disposal of solid and other wastes from fish market, cattle market and slaughter house could also cause environmental pollution. Wastewater from slaughter house, if not properly disposed, could bring about adverse health and environmental impacts. Increased risks of accidents have been observed at some of the UPs/PSs visited after construction of a new road. Such risks could often be minimized by proper management of traffic and pedestrian movement.

### **3.7 Environmental Management Plan (EMP)**

72. The primary objective of the environmental management plan (EMP) is to record environmental impacts resulting from the Scheme activities and to ensure implementation of the identified “mitigation measures”, in order to reduce adverse impacts and enhance positive impacts. Besides, it would also address any unexpected or unforeseen environmental impacts that may arise during construction and operational phases of the Schemes. The EMP should clearly lay out: (a) the measures to be taken during both construction and operation phases of a Scheme to eliminate or offset adverse environmental impacts, or reduce them to acceptable levels; (b) the actions needed to implement these measures; and (c) a monitoring plan to assess the effectiveness of the mitigation measures employed.

73. The environmental management program should be carried out as an integrated part of the project planning and execution in case of Paurashava. It must not be seen merely as an activity limited to monitoring and regulating activities against a pre-determined checklist of required actions. Rather it must interact dynamically as a Scheme implementation proceeds, dealing flexibly with environmental impacts, both expected and unexpected. For all Schemes to be implemented under LGSP-3, the EMP should be a part of the Contract Document. The major components of the EMP include:

- Mitigation and enhancement measures
- Monitoring plan
- Grievance redress mechanism
- Estimation of cost of EMP
- Institutional arrangement for implementation of EMP

74. In addition, third party monitoring of environmental management, establishment of Environmental Management Information System (EMIS), Special Environmental Clauses (SECs) for inclusion in the bidding document, and training requirements for institutional strengthening have been presented separately (Sections 3.12 through 3.16).

### **3.8 Environmental Code of Practice (ECoP)**

75. The Environmental Code of Practice (ECoP) is prepared as a guideline for environment management of the Schemes to be implemented under the MGSP which has been included for LGSP-3 to apply for only paurashavas. The main objective of an ECoP is to manage construction operations in harmony with the environment in an effort to contribute to the well-being of the community and the environment by:

- Minimizing pollution
- Sustaining ecosystems
- Conserving cultural heritage
- Enhancing amenity

76. The ECoP is designed to be used during the construction of different types of urban infrastructure (e.g., bridge, kitchen markets, drains, and roads) under the LGSP-3. The Code is also applicable to water supply and solid waste management systems where management of minor construction activities is addressed. The purpose of the Code of Practice is to ensure that construction activities are conducted in a manner that minimizes impacts on the environment. It promotes awareness and use of best practice in environmental management. ECoP is applicable to the construction sites and associated activities such as stockpile sites, disposal sites for clean excavated materials, etc. Responsibility lies with all the people involved in any given project to adopt environmentally responsible work practices. Best environmental management practice requires environmental responsibilities. Measures taken to prevent environmental impacts are preferred to those designed to control the impact.

77. The Environmental Code of Practice (ECoP) includes a list of activities associated with different types of infrastructure development considered in the LGSP-3. The ECoP outlines activities on different issues related to project implementation. The ECoP developed will address the following issues related to Scheme operation:

1. Planning and Design Phases of a Project
2. Site Preparation
3. Construction Camps
4. Borrow Areas
5. Topsoil Salvage, Storage, and Replacement
6. Slope Stability and Erosion Control
7. Waste Management
8. Water Bodies
9. Water Quality
10. Drainage
11. Public Health and Safety
12. Material Storage, Transport, and Handling
13. Vegetation Management
14. Natural Habitats

A particular Scheme within the LGSP-3 may involve all or some of these issues (Attachment-12 presents the ECoPs).

### **3.9 Community Consultations and Access to Information**

#### **3.9.1 Community Consultation**

78. The Schemes under LGSP-3 will be identified by the UP/PS through consultation with the community and the targeted beneficiaries. Community/stakeholder consultations will take place at the ward levels. The WC/WLCC members, who have been elected through ward meetings will hold open community meetings in their respective wards (in presence of at

least 5% voters) to discuss the objectives, scope and implementation arrangements of LGSP-3 including the financial resources that would be available for small-scale Schemes. It will ensure fair selection of Schemes taking list from the community. The WC/WLCC will ensure meeting environment where the participants, irrespective of their social status, would be able to express their opinions and preferences freely. The objectives of consultations will be:

- Learn about the community needs and preferences as to what Schemes they deem necessary and would have the most beneficial outcomes.
- Identify and agree on priority Schemes, in view of the limitations in resource availability.
- Discuss the environmental and social safeguard implications/impacts that might be associated with the suggested Schemes, along with the impact mitigation guidelines and measures adopted in the ESMF.
- Identify the potential land contributors for the Schemes that require private lands.

79. Further and more focused consultations might be necessary where the Scheme selected for implementation requires use of additional lands, which could be public and private. In view of the ESMF guidelines the landowners (and public land users) would be consulted to determine how to ensure access for all people to take services (*Attachment 3*).

### **3.9.2 Access to Information**

80. The ESMF, which is reviewed and cleared by the designated regional sector unit of the Bank and formally agreed with the GOB, will be disclosed to the public by MLGRD&C through posting it in their website, and would make it available at the Upazila Headquarters and UP offices. In addition, MLGRD&C may undertake public awareness campaign by publicizing, through brochures and pamphlets, the environmental and social issues that are to be addressed under LGSP-3. The Bank will post the document in its Info Shop and keep it at its Country Office information Center.

## **3.10 Institutional Arrangement**

### **3.10.1 Ward Committee (WC)**

81. Ward Committee (WC) will be formed for all UPs at ward level consisting of 7 members including at least 2 woman members. The committee members will be elected from ward meeting by open voting. The WC will be chaired by an elected male or female Ward Member. For reserved seat the women member represents at least one WC by rotation basis. WC will do local level Scheme selection, implementation and ensure participation of community people. WC is responsible to assess the environmental and social safeguard compliance and to fill up Form-A (2.1), named 'Environmental and Social Screening'.

### 3.10.2 Ward Level Coordination Committee (WLCC)

82. According to Pourashava Act 2009, all PS has Ward Level Coordination Committee (WLCC) consisting of 10 (maximum) members. Respective Ward Counselor is the chair and Assistant/Sub Assistant Engineer is the Vice President of that committee. Other members include respective ward women member, 3 (1 female: 2 male) poor community members, 2 community leaders (1 female: 1 male), 2 members from professional groups (1 female: 1 male). WLCC will be replaced WC or assist to form Paurashava level WC to assess the environmental and social safeguard compliance and to fill up Form-A (2.2), named 'Environmental and Social Screening'.

### 3.10.3 Scheme Supervision Committee (SSC)

83. Ward level Scheme Supervision Committee (SSC) will be formed consisting of 7 members selected from the community people. Among them one Government officer nominated by UNO will be ensured. The committee members will be elected from ward meeting by open voting. The SSC will be chaired by a chosen community member. The SSC should ensure the quantity and quality of implementation. SSC is responsible to ensure environmental and social safeguard compliances during implementation and to fill up Form-B, named 'Scheme Implementation Review Form'.

### 3.11 Small Ethnic Group (SEG)

84. Most of the small ethnic groups of Bangladesh live in Chittagong hill tracts (CHT). LGSP-3 ensures that the Schemes do not adversely affect people of SEG and they get culturally compatible social and economic benefits. For consultation with SEG, a time-table is set during Scheme selection, design and implementation. It is to be noted that PMU-LGD has prepared a standalone *Small Ethnic Group Planning Framework (SEGPF)* in compliance with the Bank's OP 4.10 on Indigenous Peoples.

#### People of SEG (as defined in OP 4.10 on Indigenous Peoples)

- Self-identification as members of a distinct small ethnic cultural group and recognition of this identity by others
- Collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories
- Customary cultural, economic, social or political institutions those are separate from those of the dominant society and culture.
- An indigenous language, often different from the official language of the country or region.

### 3.12 Safeguards Screening and Mitigation Guidelines

85. Safeguards screening usually consists of checking and identifying environmental and social impacts/risks/opportunities, as well as identification of measures to mitigate adverse impacts, if any, associated with the proposed Schemes. The screening results will be used to determine funding eligibility of the individual Schemes under LGSP-3. For selection and implementation of the individual Schemes, the UPs/PSs will adhere to the following guidelines, Environmental Code of Practice (ECoP) and requirements:

- *Negative List (Attachment 1)*. The Schemes that have characteristics as those described in the 'Negative List' will be ineligible for funding under LGSP-3.
- *Guidelines for Environmental Management (Attachment 7)*. Provides principles, policies and codes of practice for the mitigation of potential environmental impacts;
- *Guidelines for Land Use (Attachment 8)*. Contains principles, policies and guidelines for use of public and private lands and adverse impact mitigation; impact assessment procedure; and implementation and monitoring arrangements.

86. An important output of the Environmental and Social Screening should be a decision on the environmental categorization (A, B, or C) of the proposed Schemes (*Attachment 2*). Based on the screening results, a decision will be made whether the Scheme, under consideration needs further environmental examination or not. As described in Attachment 2, category C Schemes needs only screening, but a Initial Environmental Examination (IEE *at Form D*) is to be undertaken to adopt mitigation measures (*Attachment 7*) only at Pourashavas. Mitigation measures, which are expected to vary by Schemes, will be incorporated into the construction contracts.

### 3.13 Mitigation Responsibilities

87. The UPs and PSs will review the compiled Scheme list collected from the ward meeting with negative list. The WCs along with the concerned persons will conduct the environmental and social screening exercises and select the desired Schemes to propose to the UPs and PSs. SSC will supervise Scheme design and implementation, including the measures as and when adopted for safeguards impact mitigation. Depending on scope, likely impacts and the proposed mitigation measures, the SSCs may decide to visit the Scheme locations and verify the findings with the communities, especially with those who might be displaced from public lands and who would contribute lands for the proposed Schemes. For screening, the WCs may seek technical support of Upazila level government professionals. IEE will be applicable for the Pourashava only and form will be filled up by the Pourashava Engineer. Land use social impact form will be filled up by the WC. MoU for volunteer contribution of private land will be done by the Chairman/Mayor of UP/PS. List of

environmental mitigation measures will be ensured by the WC during screening, assigned Engineer during design, SSC during supervision, PS Engineer during IEE.

88. While the UPs will manage and allocate the BBGs to the wards, the WCs will implement the selected Schemes, and arrange for collective mitigation of their environmental and social impacts. In addition to technical support for Scheme design and implementation, the SSCs will also provide support to interpret and apply the environmental and social impact management guidelines adopted in this ESMF.

89. For Pourashava, the Schemes should be selected according to the Master Plan (if available).

### **3.14 Special Environmental Clauses (SECs) for Tender Document**

90. As like EMP of MGSP, apart from the provisions under “General Specification” and “Particular Specification” for different Schemes, the following special environmental clauses (SECs) shall be included in the Tender Document under General/Particular Specification for Paurashavas. These clauses are aimed at ensuring that the Contractor carries out his responsibility of implementing necessary environmental and safety measures (attachment 7).

91. The Contractor shall make sure that all equipment and safeguards required for the construction work such as stair, road, drinking water supply system, bridge etc. are 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.

92. The Contractor shall observe and maintain standards of Health and Safety towards all of his employees not less than those laid down by the national standards or statutory regulations. The Contractor shall provide all appropriate protective clothing and equipment for the work to be done and ensure its proper use. Where required, safety nets, belts, harnesses and lines shall be provided by the contractor. The Contractor shall provide and maintain in prominent and well-marked positions all necessary first-aid equipment, medical supplies and other related facilities. A sufficient number of trained personnel will be required to be available at all times to render first aid.

93. The Contractor shall not dispose any waste, rubbish or offensive matter in any place not approved by the Engineer or Statutory Authority having jurisdiction. The Contractor shall not discharge into any watercourse oil, solids, noxious or floating materials. The Contractor shall take all reasonable precautions to keep public or private roads clean of any spillage or droppings from his vehicles or equipment. Any spillage or droppings which accrue shall be cleaned without delay to the satisfaction of the Engineer.

94. The Contractor shall construct sanitary latrine or septic tank system or install portable cabin toilet for disposal of human waste in the site office and temporary labor sheds for workers/ employees; the Contractor shall provide waste bins/ cans for collection of solid waste at appropriate locations (as directed by the UP/PS), and ensure proper transfer/disposal of solid waste with support from the local government authority.

95. During excavation of trenches in natural soils, the Contractor shall make sure that the first 300 mm to 450 mm of topsoil be excavated and stored on one side of the trench and the rest of the excavated soil is stored separately/ on the other side; during back filling of trench, the topsoil should be placed on the top again.

**Figure 2: Flow chart to use land for a Scheme**

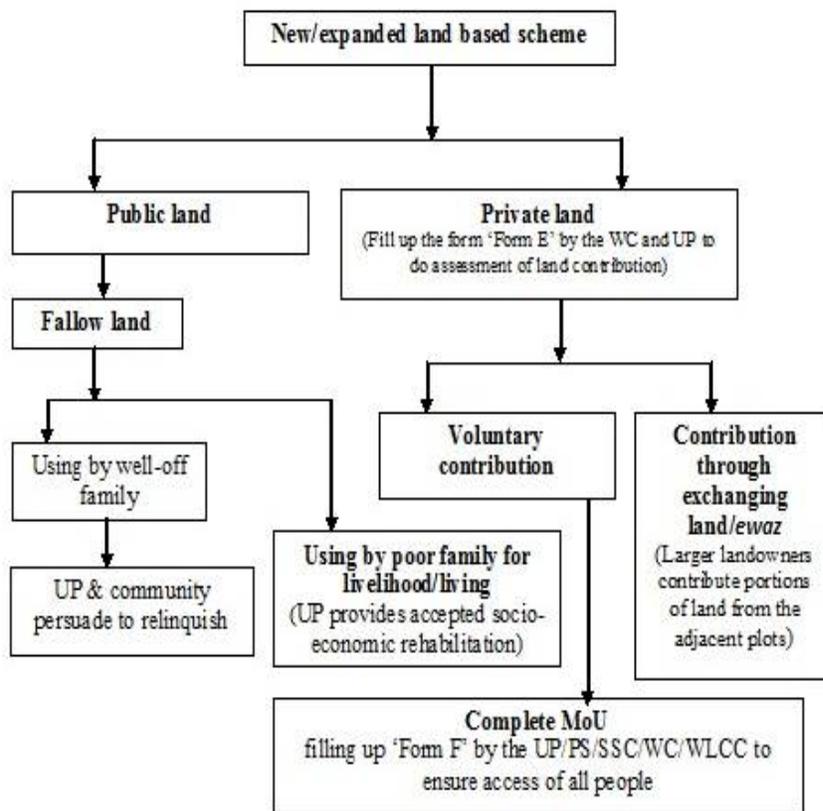
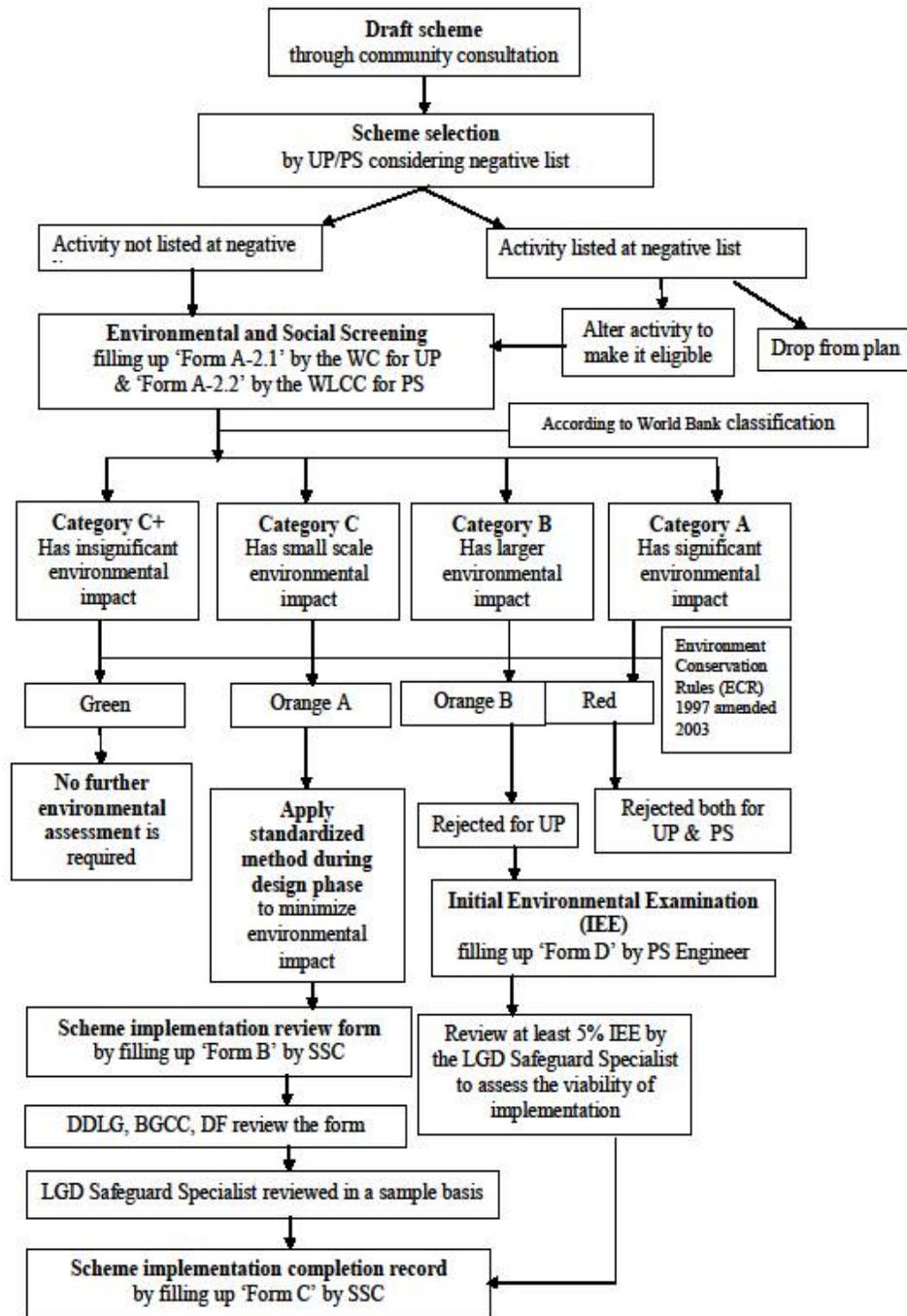


Figure 3: Flow chart of environmental screening at LGSP-3



### 3.15 Scheme Monitoring Arrangement

96. The UP/PSs will be supported by a minimum of two committees for implementation of the LGSP-3, such as WC, WLCC, SSC and GRC. These committees will be formed in open meetings, where communities will nominate the members ensuring representation of poor, women, professionals and other groups. *The UP Chairman and Secretary will not be member of any of these committees. The same person cannot be simultaneously a member of WC/WLCC and SSC.*

97.

T

he Screening form (Form-A) for each Scheme will be filled in by the WC/WLCC and keep it in the Scheme file at the UP/PS office. WC/WLCC will ensure mitigation measures to take remedial measures and follow up till they are resolved. If needed, WC/WLCC can take technical assistance from the Upazilla level officers. The SSC will also undertake inspection of implementation progress using an Implementation Review Form-B, and if there are problems, will ask the WC to take remedial measures and follow up with the WC until they are implemented. The SSC will again review the completed Scheme while preparing the completion report by filling up Form-C. The IEE/Form –D will be filled in by the PS Engineer only for Category B Schemes, and will be reviewed sample basis by the PMU Safeguard Team. All these forms will be kept in the Scheme file at the UP/PS office where they will be reviewed in the monthly UP/PS meetings and, if necessary, further actions will follow.

98. The PMU-LGD will appoint a full time Senior Environmental and Social Safeguards Consultant and one Social Safeguards Associate. Senior Consultant will review the safeguards performance quality along with the Government counterparts, such as the Deputy Director, Local Government (DDLG) and District Facilitator (DF) based at the district level. In order to keep the momentum, the experience, expertise and institutional memory of the existing human resource will have space in LGSP-3 with priority following the existing rules and regulations.

99. After fully activate of MIS safeguards recordkeeping will be up to date, accurate, and easily accessible. Senior Environmental and Social Safeguard Specialist will generate tabular report.

100. Quarterly review: All UPs/PSs will prepare an informative environmental and social safeguard report compiling information of safeguard compliances of Schemes. UP/PS will share that report with DF/DDLG. DF will compile the information quarterly and send to safeguard team of PMU.

101. A 6-Monthly Review: The screening and implementation progress will be reviewed every 6 months using a random sample and all SSC follow-up actions by the DDLG/DF

(5% of total) at the District level. If DDLG/DF finds problems with screening and implementation forms, they will send written communication to the concerned UPs, PSs, SSCs and WCs/WLCCs to take remedial actions (e.g. re-screen the Scheme in a consultative process or implement Schemes using LGSP rules etc.). The DDLG/DF will follow up the remedial actions till these are resolved. All of the reviews and actions will be documented and kept in the Scheme file at DDLG and UP offices. The DDLG will summarize the review findings highlighting the problems and remedial actions taken, and send the report to the LGD National Project Director (NPD) as part of their six-monthly reporting on general project progress. If DDLG cannot resolve the problems of Scheme implementation, these will be sent to the NPD for actions.

102. Annual Review of Safeguards: The PMU-LGD Senior Environmental and Social Safeguards Specialist will conduct an annual review of safeguards, which will include review of 5% IEE and 1% random sample of Screening, Implementation and Completion Reports and undertake field visits to see whether these were done according to the ESMF guidelines.

103. Annual Performance Audit: PMU-LGD will contract several Chartered Accounting firms to conduct annual Performance Audit that will include financial management, procurement and safeguard compliance. The auditors will review all documents and visit at least 10 of the Schemes at visited UPs/PSs for validation of safeguard compliance. Safeguard Audit system will follow the general rules of overall audit system. PMU will take necessary measures on necessary audit findings. Randomly selected one UP per Upazilla and all PSs will be audited.

104. Independent Third Party Review: Third party review of safeguard component will be conducted along with the project mid-term review and final evaluation of project. Mid-term review will be carried out at project midterm and final evaluation at project completion by an independent competent organization.

### **3.16 Capacity Building**

105. Both UP and PS have few institutional capacities to implement the ESMF. GoB has planned to organize specific capacity building activities, training programs and IEC materials on safeguards component of ESMF for district administrators, UPs, PSs, WCs, WLCCs, SSCs and the communities of LGSP-3. Operational Manual (OM) of LGSP-3 will include the safeguards component and procedure as a core document for implementation. The video series of OM will also include the safeguards part and will be shared with all UP, PS and digital centers and uploaded at the LGSP website. The DFs will get one day long specialized 'training-of-trainer' (ToT) on ESMF of LGSP-3. All Chairman, Secretary and PS Engineers will get one-day training coordinated by the trained DFs as a part of the specialized training. One-day long orientation will be organized by the trained UP

Chairman, PS Mayor and PS Engineer for the Ward Committee (WC), Scheme Supervision Committee (SSC), Ward Level Coordination Committee (WLCC), Grievance Redress Committee (GRC) and other relevant committees/community groups at UP/PS level. DF will monitor the quality and quantity of that training. UP/PS can organize that financing from allocated budget for human resource development.

106. Besides those, NILG will include safeguards component as separate chapter at training materials. As a result, around 150 master trainers of NILG, Upazila Resource Teams (URTs) consisting of 12 upazilla officers will be trained up on safeguards component. Furthermore, upazila-based peer learning and horizontal learning programs are also under consideration. All training programs will be funded under the institutional and policy development component of LGSP-3. One hand toolkit will be printed to disseminate the key mitigation measures for WC, SSC, WLCC, Engineers and so on. One awareness raising activities/event for key stakeholders on safeguard issues will be organized by UP/PS annually.

### **3.17 MIS System**

107. Safeguard related MIS forms, other relevant items and reporting table will be updated according to revised ESMF prepared for LGSP-3. New video tutorial will be prepared by the MIS Specialist, shared with the stakeholders and uploaded.

### **3.18 Grievance Redress Mechanism**

108. PMU-LGD will develop a Grievance Redress Mechanism (GRM) to address grievances and complaints about any irregularities in the implementation of the provisions adopted in the ESMF. The primary objectives are to amicably resolve any issues, which may range from selection of WC, SSC and other committee members to those that may arise during Scheme selection, design and implementation, as well as to ensure greater accountability on the parts of those involved in supervision and monitoring of the project. Benefits of the GRM are seen as timely completion of the Schemes, with no one left aggrieved in the community.

109. Each UP/PS will form a Grievance Redress Committee (GRC) with five members who are respected in the Union/Pourashava for their personal integrity, impartiality and fairness. At least one of the members will be female, who will be selected from those with experience of working outside the household.

110. A designated member of the GRC will receive grievances, which are to be submitted in writing, and give the aggrieved person's written evidence that their grievances have been received by the GRC. All grievances will be recorded in a Grievance Register that will be maintained by each GRC. Hearing will take place in two

weeks or earlier depending on the nature of the complaints and urgency of resolution. In this process, all unresolved cases will be forwarded to respective DDLG with the complaints and minutes of hearings at the GRC level. DDLG will complete review of the cases in one week and send his/her decisions to the respective GRCs. If the decisions at this level remain the same as those at GRC level, the DDLG will forward the complaints to LGD (NPD of LGSP-3, who will make the final decisions) with the complaints and minutes of the previous hearings. Review and decisions at this level will be completed in no more than two weeks. Decisions made at any level of hearings will be binding on the concerned UPs and PSs. And it is important to note that GRM does not pre-empt an aggrieved person's right to go to courts of law.

111. The DDLG will monitor the GRM, with information on the number and types of grievances received, heard and resolved in favor of or against the complainants on a quarterly basis and share them with UPs, PSs and PMU. On their parts, the UPs and Pourashavaass will send quarterly report to the respective DDLGs about the GRC hearings and resolutions. The DDLGs, supported by the DFs, will keep records of all complaints, including complainants' names, addresses, issues/contents of the complaints, hearing outcomes at different levels, decisions made in favor of or against the complainants.

### **3.19 Budget Estimation**

112. According to Bangladesh Government procedure, project needs to get environmental clearance and annual renew of that from Department of Environment (DoE). Also budget is required for site specific detail EA preparation (if recommended from screening) and implementation some specific EMP. According a lump sum budget of 15,00,000 BDT and 8,00,0000 BDT are kept for DoE and EMP purposes throughout the project period.

# **ATTACHMENT – 1: NEGATIVE LIST OF ENVIRONMENTAL & SOCIAL ATTRIBUTES OF COMMUNITY INFRASTRUCTURE SCHEMES**

The negative characteristics of Schemes, which will make them ineligible for support under LGSP-3, are based on their probable environmental and social impacts. With the available implementation experience, it is apprehended that local capacity may not be adequate to manage the impacts listed below. However, it should be noted that the list is not immutable and can be modified as the UPs/PSs gather experience and develop capacity to deal with environmental and social issues.

<b>NEGATIVE ENVIRONMENTAL ATTRIBUTES</b>
Schemes with any of the attributes listed below will be ineligible for support under the proposed operation.
<p><b>Transportation</b></p> <ul style="list-style-type: none"> <li>• Closing of gaps, culverts etc. in existing roads which may affect water flow significantly.</li> <li>• Create water logging.</li> <li>• Destroy of aquaculture and reproductive system.</li> <li>• Impediment to existing transportation (road, railways, waterways, water bodies) system.</li> </ul>
<p><b>Water Supply</b></p> <ul style="list-style-type: none"> <li>• Tube-wells with Arsenic contamination higher than national standard (i.e., currently 0.5ppb) or base below the 10-year High Flood Level (HFL).</li> <li>• Water supply Schemes with high probability of bacterial contamination or characteristics which may make water unsuitable for drinking.</li> <li>• Tube-well with Iron contamination that effect public health.</li> <li>• Drinking water with salinity higher than national standard.</li> </ul>
<p><b>Health</b></p> <ul style="list-style-type: none"> <li>• Health facilities without adequate hazardous waste management capacity (if needed)</li> </ul>
<p><b>Sanitation and Waste Management</b></p> <ul style="list-style-type: none"> <li>• New or significant expansion of disposal facilities with negative health impacts to nearby water sources or population.</li> <li>• New or significant expansion of disposal sites requiring involuntary public participation.</li> <li>• Slaughtering without proper waste management.</li> </ul>

**Agriculture and Markets**

- Construction or rehabilitation of mechanized tube-wells for irrigation in deep aquifers which may lead to aquifer depletion.
- Drainage of traditional wetlands for larger agricultural use.
- Schemes requiring pesticides that fall in WHO classes TA canary.
- Ensure safe distance to construct a slaughter house in public area.

**Natural Resource Management**

- Activities supporting commercial logging in forested areas.
- Activities involving the use of unsustainably harvested timber or fuel-wood.
- Activities involving significant conversion or degradation of critical natural habitats.
- Scheme implementation without following GoB laws regarding natural resource management.

**NEGATIVE SOCIAL ATTRIBUTES**

Schemes that involve involuntary resettlement of people/households will be ineligible for support under LGSP-3. Such Schemes are those that

- Scheme design for single beneficiaries
- Require private land acquisition (ESMF contains guidelines for using private lands for Schemes that are of critical importance)
- Require involuntary contribution of land
- Affect private homesteads
- Communities are unable to compensate for lands that are available on 'contribution against compensation' basis.
- Render households using public lands destitute
- Affect mosques, temples, graveyards, cremation grounds, and other places/objects that are of religious and cultural significance
- May significantly restrict access to common property resources and livelihood activities of groups and communities

Schemes that affect peoples of Small Ethnic Groups with long-term consequences will be ineligible support. These Schemes are those that,

- Threaten cultural tradition and way of life
- May severely restrict access to common property resources and livelihood activities
- May affect places/objects of cultural and religious significance (places of worship, ancestral burial grounds, etc.)

*It is to be noted that if peoples of Small Ethnic Group are likely to be affected, PMU- LGD will follow the Small Ethnic Group Planning Framework (SEGPF) which has been prepared separately for LGSP-3.*

## ATTACHMENT - 2.1: Form-A ‘ENVIRONMENTAL AND SOCIAL SCREENING’

[This form is applicable for the UP and to be filled in by WC and kept in the UP Scheme file]

Screening Date:.....

District:.....; Upazila: .....

Union:.....; Union Code: .....Ward No.....

Name of Ward Committee Chair:.....

Names of other Ward Committee members participated in screening process

SL	Name	Mobile No.	NID No.
1			
2			
3			
4			
5			
6			

### **Part A: General Information**

1. Name of the Scheme: .....

2. Use of the Scheme:.....

3. Location of the Scheme:.....

4. The Scheme is located in an area (ward or part of a ward) where residents are:

All mainstream or non-indigenous peoples

All indigenous peoples

Majority mainstream or non-indigenous peoples

Majority indigenous peoples

5. Women were consulted separately:  Yes;  No

6. Scope of Scheme works:  New construction,  Improvements,  Repair/Renovation

7. Brief description of physical features of the Scheme:

.....  
 .....

**Part B: Environmental Issue**

Identification of Negative Environmental Impacts

Aspects	Yes	No	Remarks
Loss of agricultural land or crop?			
Create potential obstacle to fishes?			
Destruction of trees and vegetation?			
Water logging or Drainage congestion in the project area?			
Negative effects on surface water quality, quantities or flow?			
Negative impacts on irrigation and canals			
Make obstacle to people and animals movements?			
Increased noise due to day-to-day construction activities?			
Increased dust from material (e.g. fine aggregate) storage areas?			
Impact on historical or culturally important sites (mosque, graveyards, monuments etc.)?			

Proposed necessary remedial measures:

.....

**Part C: Social Issues**

1. Will there be a need for additional lands to carry out the indented works under this Scheme?  
 Yes    No
2. If yes, required lands presently belong to-  
 Government (Khas, other GOB agencies, UPs, Public lands);  Private citizens
3. If the required lands are Public Lands, the lands are presently used for:  
 Agriculture (No. of persons/households using the lands: .....)  
 Residential purposes (No. of households living on them: .....)  
 Commercial purposes (No. of persons: ..... No. of shops: ..... )

4. If the required lands belong to the private citizens, the lands are presently being used for:

Agriculture (No. of landowners/households: .....)

Residential purposes (No. of households: .....)

Commercial purposes (No. persons:..... No. of shops: .....)

Number of non-titled persons/households who would lose their livelihood because of eviction from public lands and/or from obtained on voluntary contribution, or other means:  
.....

5. Does this Scheme affect any community groups' access to any resources that they use for livelihood?  Yes  No

6. If the land belongs to Small Ethnic Group, is it

Legal

Customary

7. If additional lands are required, they will be obtained through:

Voluntary contribution

Other means (Specify): .....

8. Negative effects on neighborhood or community characters/behavior/norms?

Yes  No

**Part D: Additional Information on Indigenous Peoples (IPs)**

8. Names of IP community members and organizations which participated in Environmental & Social Screening:  
.....

9. Is there a traditional grievance redress mechanism (GRM) in the Scheme locality?

Yes  No

If 'Yes', did any member of this GRM participated in Environmental & Social Screening?

Yes  No

10. The would-be affected IPs has the following forms of rights to the required lands:

Legal (No. of IP persons/households: .....)

Customary (No. of IP persons/households: .....)

Lease agreements with the government (No. of IP households: .....)

Others (Specify): .....(No. of IP households: .....)

11. The following are the three main economic activities of the would-be affected IP households:
- a. ....
  - b. ....
  - c. ....
12. Any social concerns expressed by IP community and organizations?  
.....
13. The IP community and organizations perceive the social outcomes of the Scheme:
- Positive
  - Negative
  - Neither positive nor negative
14. In respect of the social impacts and concerns, is there a need to undertake an additional impact assessment study?
- Yes       No

*This form filled in by (Name):*

SL	Name and Designation	Signature	Date
1			
2			
3			
4			
5			
6			
7			

Endorsed by SSC Chairperson/Member Secretary:

Signature and Date:

Name:

Designation

Mobile:

## ATTACHMENT-2.2: Form-A ‘ENVIRONMENTAL AND SOCIAL SCREENING’

Ref. Environmental screening part has been taken from the MGSP

[This form is applicable for Paurashava and to be filled in by WLCC/WC and kept in the Paurashava Scheme file]

Screening Date:.....

District:.....; Upazila: .....

Paurashava:.....Paurashava Code: .....; Ward No.....

Name of Ward Committee Chair:.....

Names of other Ward Committee members participated in screening process

SL	Name	Mobile No.	NID No.
1			
2			
3			
4			
5			
6			

### **Part A: General Information**

8. Name of the Scheme: .....

9. Use of the Scheme:.....

10. Location of the Scheme:.....

11. The Scheme is located in an area (ward or part of a ward) where residents are:

All mainstream or non-indigenous peoples

All indigenous peoples

Majority mainstream or non-indigenous peoples

Majority indigenous peoples

12. Women were consulted separately:  Yes;  No

13. Scope of Scheme works:  New construction,  Improvements,  Repair/Renovation

14. Brief description of physical features of the Scheme:

.....  
 .....

## **Part B: Environmental Issue**

### 1) Potential Environmental Impact during Construction Phase:

**(a) Ecological impacts:** (important Schemes include storm drain, bridge, box culvert, and boat landing jetty)

- Felling of trees                      Significant     Moderate     Minor     Number of trees
- Clearing of vegetation              Significant     Moderate     Minor
- Potential impact on species of aquatic (i.e., water) environment              Significant     Moderate     Minor

**(b) Physicochemical impacts:** (all Schemes)

- Noise pollution                      Significant     Moderate     Insignificant
- Air pollution                          Significant     Moderate     Insignificant
- Drainage congestion                  Very likely     Likely     Unlikely
- Water pollution                      Significant     Moderate     Insignificant
- Pollution from solid/ construction waste              Significant     Moderate     Insignificant
- water logging                          Significant     Moderate     Insignificant

**(c) Socio-economic impacts:** (all Schemes)

- Traffic congestion                      Very likely     Likely     Unlikely
- Health and safety                      Significant     Moderate     Insignificant
- Impact on archaeological and historical              Significant     Moderate     Insignificant
- Employment generation              Significant     Moderate     Insignificant

### 2) Potential Environmental Impact during Operational Phase:

**(d) Ecological impacts:** (important Schemes include storm drain and boat landing jetty)

- Potential impact on species of aquatic (i.e., water) environment              Significant     Moderate     Minor

**(e) Physicochemical impacts:** (all Schemes)

- Potential air quality and noise level (especially for road )      Improvement     No-improvement     Deterioration
- Drainage congestion (especially for drain)      Improvement     Minor Improve     No Impact
- Risk of Water pollution (especially for storm drain and jetty)      Significant     Moderate     Minor
- Pollution from solid waste (especially for SWM, and market )      Improvement     No-improvement     Deterioration

**(f) Socio-economic impacts:** (all Schemes)

- Traffic (especially for road, bridge, box culvert, bus/truck terminal)      Improvement     No-improvement     Adverse
- Safety      Improvement     No-improvement     Adverse
- Employment generation      Significant     Moderate     Minor

**3) Summary of Possible environmental impacts of the Schemes :**

**4) Category of Scheme :** (follow Figure 2)

(a) According to ECR 1997 : Green / Orange A / Orange B / Red / Not Listed

(b) According to WB classification : Category B / Category C

**5) Proposed mitigation measure** (follow Attachment 7 as appropriate)

**6) Overall Comments**

.....  
.....

**Part C: Social Issues**

- 5. Will there be a need for additional lands to carry out the indented works under this Scheme?  
 Yes  No
- 6. If yes, required lands presently belong to-  
 Government (Khas, other GOB agencies, PS, Public lands);  Private citizens
- 7. If the required lands are Public Lands, the lands are presently used for:  
 Agriculture (No. of persons/households using the lands: .....)  
 Residential purposes (No. of households living on them: .....)  
 Commercial purposes (No. of persons: ..... No. of shops: .....)
- 8. If the required lands belong to the private citizens, the lands are presently being used *for*:  
 Agriculture (No. of landowners/households: .....)  
 Residential purposes (No. of households: .....)  
 Commercial purposes (No. persons: ..No. of shops: ..... )

Number of non-titled persons/households who would lose their livelihood because of eviction from public lands and/or from obtained on voluntary contribution, or other means:  
.....

- 5. Does this Scheme affect any community groups' access to any resources that they use for livelihood?  Yes  No
- 6. If the land belongs to Small Ethnic Group, is it  
 Legal  
 Customary
- 7. If additional lands are required, they will be obtained through:  
 Voluntary contribution  
 Other means (Specify): .....
- 8. Negative effects on neighborhood or community characters/behavior/norms?  
 Yes  No

**Part D: Additional Information on Indigenous Peoples (IPs)**

- 8. Names of IP community members and organizations which participated in Environmental & Social Screening:  
.....
- 9. Is there a traditional grievance redress mechanism (GRM) in the Scheme locality?  
 Yes  No

If 'Yes', did any member of this GRM participated in Environmental & Social Screening?

Yes       No

10. The would-be affected IPs has the following forms of rights to the required lands:

- Legal (No. of IP persons/households: .....)
- Customary (No. of IP persons/households: .....)
- Lease agreements with the government (No. of IP households: .....)
- Others (Specify): .....(No. of IP households: .....)

11. The following are the three main economic activities of the would-be affected IP households:

- a. ....
- b. ....
- c. ....

12. Any social concerns expressed by IP community and organizations?

.....

13. The IP community and organizations perceive the social outcomes of the Scheme:

- Positive
- Negative
- Neither positive nor negative

14. In respect of the social impacts and concerns, is there a need to undertake an additional impact assessment study?

Yes       No

*This form filled in by (Name):*

SL	Name and Designation	Signature	Date
1			
2			
3			
4			
5			
6			
7			

Endorsed by SSC Chairperson/Member Secretary:

Signature and Date:

Name:

Designation

Mobile:

# ATTACHMENT-3: Form-B 'SCHEME IMPLEMENTATION REVIEW FORM'

[This form is to be filled in by SSC and kept in the Scheme file]

## Part A: General Information

Scheme Supervision Date: .....

UP/PS Ward No.: ....., Union/Paurashva:.....

Name of Upazila/Pourashava: ..... Name of District: .....

1. Name of SSC Chair: .....
2. Names of other SSC Members participated in supervision:

SL	Name	Mobile No.	NID No.
1			
2			
3			
4			
5			
6			

## Part B: Scheme Information

1. Name the Scheme:.....
2. location of the Scheme:.....
3. Use of the Scheme:.....
4. Scope of Scheme works  
 New construction     Improvements     Repair/Renovation
5. Brief description of the physical works:  
.....
6. Community consultations were undertaken to select this Scheme;  Yes  No
7. The Scheme truly reflects community preference:  Yes  No
8. Does this Scheme comply with the List of 'Schemes with Negative Environmental and Social Attributes'?  Yes  No

### **Part C: Environmental Issues**

1. Were there any unexpected environmental problems experienced during implementation or was there any proposal for necessary measures? Yes [ ] No [ ]

If yes, what were they (e.g. due to diversion of surface waters, newly built irrigation systems, waste generation, etc.)?

If yes, how were the impacts mitigated?

If the unexpected impacts were mitigated, was it done in a manner that is (please tick):  
Satisfactory [ ] Not satisfactory [ ]

2. If IEE was needed for the Scheme, did the IEE documentation get forwarded to the PMU-LGD Consultant in time for review? (applicable only for Pourasavas)  
Yes [ ] No [ ]

If IEE was needed for the Scheme, were the mitigation measures suggested in the IEE integrated into Scheme design? Yes [ ] No [ ]

If IEE was needed for the Scheme, were the mitigation measures suggested in the IEE integrated into Scheme Contract? Yes [ ] No [ ]

3. Consideration of Highest Flood Level (HFL) where needed:  
Yes [ ] No [ ] N/A [ ]

4. Mitigation of water logging and un-block natural water flow (if needed):  
Yes [ ] No [ ] N/A [ ]

5. Take initiative for prevention of soil erosion and damages slope (if needed):  
Yes [ ] No [ ] N/A [ ]

6. Ensured Arsenic Contamination level test during Tube Well installation (during boring)  
Yes [ ] No [ ] N/A [ ]

7. Proper management of wastes (if needed):  
Yes [ ] No [ ] N/A [ ]

8. Existing tree destroyed during Scheme implementation period:  
Yes [ ] No [ ] N/A [ ]

9. Has this Scheme affected the peoples' access to any environmental resources?  
Yes [ ] No [ ]

10. What is the opinion of the community members about the environmental impacts of the Scheme and its benefits/impacts to their environment?

Highly Satisfactory [ ] Satisfactory [ ] Marginally Satisfactory [ ] Unsatisfactory [ ]

11. If Scheme found unsatisfactory, please provide some additional information on the nature of impacts:

.....

Have the WC been informed of these issues? Yes [ ] No [ ]

**Part D: Social Issues**

1. Is this Scheme using lands beyond its existing physical limits?

[ ] Yes [ ] No

2. If 'Yes', the lands being used for the Scheme belong to:

[ ] Government (Khas, other GOB agencies, UPs/PSs Public Lands); [ ] Private

3. In case of Public Lands; the lands were being used for: .....

4. Number of persons were using the public lands:.....

5. If the lands belonged to private owners, the lands were being used for:

6. Number of landowners affected for using their lands:

7. The private lands have been obtained through:

[ ] Voluntary contribution

[ ] Contribution against compensation

[ ] Other means (Specify): .....

8. Has this Scheme affected any community groups' access to any resources that they are used for livelihood? [ ] Yes [ ] No

9. Opinion of the community about the Scheme and its usefulness:

Highly Satisfactory [ ] Satisfactory [ ] Marginally Satisfactory [ ] Unsatisfactory [ ]

12. Names of IP community members and organizations which participated in Scheme supervision:

.....

13. The affected IPs have the following forms of rights to the lands used for the Scheme:

[ ] Legal (No. of persons/households: .....)

[ ] Customary (No. of persons/households: .....)

[ ] Lease agreements with the government (No. of IP households: .....)

[ ] Others (Specify): .....(No. of IP households: .....)

14. Social concerns expressed by IP community and organizations during screening:

.....

15. The Scheme design has addressed those IP social concerns: [ ] Yes [ ] No

16. The IP community and organizations perceive the social outcomes of the Scheme:

Positive

Negative

Neither positive nor negative

17. The following problems/issues, if any, that are to be addressed by the WC:

.....  
.....

The following SSC members took part during implementation supervision of the Scheme:

SL	Name and Designation	Signature	Date
1			
2			
3			
4			
5			
6			
7			

## **ATTACHMENT–4: Form-C ‘IMPLEMENTATION COMPLETION RECORD’**

(To be completed by SSC and cheque signatories for each Scheme)

Fiscal Year Basic Block Grant Used:.....

District: .....; Upazila: .....

Union/Paurashava: .....; Ward No.....

Name of SSC Chair: .....

Scheme name: .....

Location of Scheme: .....

### **Part A: General Information**

1. Scope of Work:  New construction  Improvements  Repair/Renovation

2. Scheme implementation period:

Starting date:.....Completion date:..... Total days:.....

3. Amount of fund allocated for the Scheme (Taka).....

4. Amount of fund actually expenses for the Scheme (Taka) .....

5. If there are differences between the proposed and executed works, they are (briefly):

.....

6. The differences have been caused by:.....

7. Community's opinion about quality of the Scheme works done (choose one):

Fully satisfactory,  Satisfactory,  Marginally satisfactory,  Unsatisfactory

### **Part B: Land Use**

8. Was SSC (or any member of SSC) involved in Environmental & Social Screening of the Scheme?  Yes  No

9. Did the Scheme use additional lands?  Yes  No

10. If land for the Scheme received on voluntary contribution, did the contributor(s) signed the MoU/agreement?  Yes  No

**Where Schemes Built in Unions/Paurashava/Wards with Peoples of Small Ethnic Groups (SEG)**

- 11. Were the SEG communities involved in Environmental and Social Screening of the Scheme?  Yes  No
- 12. Were the SEG communities and their organization consulted during selection and implementation of the Scheme?  Yes  No
- 13. Was there an SEG impact assessment?  Yes  No
- 14. Are there additional development measures implemented for the SEGs?  
 Yes  No
- 15. If 'Yes', brief description of the development measures:  
.....

**Part C: Grievance Redress**

- 16. No. of complaints/grievances against WC, WLCC, SSC, contractors, cheque signatories:  
  
Received: ..... Resolved by UP/PS GRC: .....
- 17. No. of unresolved complaints/grievances the UP/PS GRC sent to DDLG:.....
- 18. Number of complaints resolved by DDLG:.....
- 19. Number of complaints the DDLG sent to LGD (NPD).....
- 20. Three of the most important complaints were:
  - a. ....
  - b. ....
  - c. ....

**Part D: Environmental Safeguards**

- 21. Based on the environmental issues identified in the Screening Form, were alternatives to Scheme design needed (in order to reduce the need for mitigation of environmental impacts)? Yes  No

If YES, were they incorporated into Scheme design? Please tick below:

- Yes alternatives were incorporated, as they were needed
- No alternatives were not incorporated, despite being needed
- If alternatives were needed, but not incorporated, why not?.....

What is the opinion of the community members about the environmental impacts of the Scheme and its benefits/not benefits to their environment?

Satisfactory [ ], Marginally satisfactory [ ], Unsatisfactory [ ], Very unsatisfactory [ ]

**Part E: SSC's remarks and suggestions**

If any, on Scheme selection and implementation, as well as on adverse environmental and social Impact mitigation guidelines and measures:

.....

**Signatures of the cheque signatories who participated in preparation:**

SL	Name and Designation	Mobile No.	NID No.	Signature	Date
1					
2					
3					

**Signatures of the SSC Chair & Members who participated in preparation:**

SL	Name and Designation	Mobile No.	NID No	Signature	Date
1					
2					
3					
4					
5					
6					
7					

## **ATTACHMENT – 5: GUIDELINES FOR ENVIRONMENTAL MANAGEMENT**

The vast majority of LGSP-3 Schemes are expected to have only positive or minor environmental impacts. However, as many Schemes will be implemented, cumulative impacts are expected to be more significant. UPs must therefore bear in mind the cumulative consequences of numerous small-scale Schemes, and ensure that these do not adversely affect the environment in an irreversible manner.

In general, most Scheme types are likely to have positive cumulative impacts on the environment:

- reforestation, improved stoves, electrification, replanting with aquatic plants, restocking with indigenous fish, plantation of trees and shrubs and establishing new ponds all have a positive effect on biodiversity and/or forests; and
- training, education and institutional strengthening lead to increased awareness of, and increased capacity to deal with environmental issues.

However, some Scheme types are more likely to have negative cumulative impacts on the environment:

- small-scale irrigation, small scale drainage, and small scale embankment construction may affect the aquatic environment, by lowering or raising water levels, and decreasing water quality.

Other Scheme types may have both positive and negative cumulative impacts on the environment:

- waste water disposal, latrines and improved drinking water supplies may all have positive cumulative effects on human health, but the first two (if improperly implemented) may affect ground and surface water quality, while the latter may affect groundwater levels;
- rural roads increases mobility and access; what this leads to environmentally, depends on many other variable, many of which are related to economic issues.

### **Environmental Screening and Environmental Categorization of LGSP III Schemes:**

The Ward Committee is supposed to carry out the Environmental and Social screening of each Scheme, after carrying out proper public consultations. The WC/WLCC has to fill in the Attachment Form-A (both the environment and social sections). The result of this screening is that a decision can be made regarding the environmental category of each Scheme. The environmental categories of the Schemes in LGSP-3 are the following.

- 'C': insignificant environmental impact.
- 'C': Schemes that have impacts which are small in scale.
- 'B': Scheme that have impacts which are larger and more complex.
- 'A': Schemes whose potential impacts involve significant environmental risks, and which will not receive funding under the LGSP-II.

In the case where the environmental impacts are insignificant, the Scheme should be

assigned 'C+' category. No further environmental analysis or action would be required in respect of environmental management in the Scheme.

If some impacts are identified in the screening which are small in scale and can be addressed through standardized techniques or technical methods, the category of the Scheme should be 'C'. The standard remedial measures given in ESMF manual to offset the environmental impacts are to be provided in the Screening form. These measures should be included in the project design. The DDLG, BGCC, DF, SSC and the PMU-LGD Senior Environmental and Social Safeguards Specialist need to review these forms in sample basis. The SSC needs to ensure that these measures are included in the construction contract.

If any Scheme has environmental impacts more substantial than those in the 'C' category, the Scheme should be assigned category 'B'. As the impacts are larger and more complex, such Schemes will require preparation of an Initial Environmental Examination (IEE) and incorporation of the recommended mitigation measures into the Scheme design. A general format for an IEE is provided here (Form-D) and this should be prepared by an experienced specialist and reviewed by the PMU-LGD Senior Safeguards Specialist.

Any Scheme with potentially greater impacts than category 'B' Schemes and impacts that involve significant environmental risk are classified as category 'A'. Such Schemes will not be funded under the LGSP-3.

To summarize the following are the key steps in the Environmental Management of Schemes in 'C' category in which most of the Schemes are likely to fall. A more detailed procedure has to be followed for category 'B' Schemes as explained earlier,

1. Completion of screening and assignment of a category for each Scheme.
2. Inclusion of recommendations of screening in Scheme plan (if any).
3. Approval of screening form in the Scheme review process.
4. Ensuring implementation through supervision during construction.

# ATTACHMENT – 6: Form-D ‘INITIAL ENVIRONMENTAL EXAMINATION (IEE)’

(This report has to be prepared by the Paurashava Engineer)

## 1. General Description of the Scheme

Scheme Name:.....

Location:.....

Paurashava:.....

Upazila: .....

District:.....

Names of Persons Participating in the report preparation with job tile:

.....

Scheme Objectives:.....

Scheme Components:.....

## 2. Baseline Description of the Affected Environment

- Description of the Physical/Chemical Environment (Soil, Water Air etc):
- Description of the Biological Environment (Habitat, Flora, Fauna etc):
- Description of the Socio-economic Environment (Public health, historical sites, infrastructure etc):

## 3. Specification of Expected Negative Environmental Impacts

Impact on the Physical/Chemical Environment (Soil, Water Air etc.):--

Impact on the Biological Environment (Habitat, Flora, Fauna etc):-----

Impact on the Socio-economic Environment (Public health, historical sites, infrastructure etc):-----

## 4. Mitigation Measures

Cost effective mitigation measures should be identified and measures for their integration into the project design including implementation and monitoring should be recommended.

### **Report Prepared by (Name & Designation):**

Signature: .....

Date:.....

Mobile No:.....

### **Report Approved by (Name & Designation):**

Signature: Date:.....

Mobile No:.....

## ATTACHMENT – 7: ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

<b>Road communication &amp; Transportation</b>	
1. Improvement of Tertiary and secondary level roads. 2. Tertiary and secondary level culverts and bridges. 3. Footpaths.	
POTENTIAL ENVIRONMENTAL EFFECTS	MITIGATION MEASURES
<b>Disruption of drainage:</b> Hampers free drainage, causes stagnant pools of water, road breaks during monsoon.	<ul style="list-style-type: none"> <li>• Design to provide adequate drainage and to minimize changes in flows.</li> <li>• Provision of sufficient number of cross drains.</li> </ul>
<b>Erosion:</b> Erosion of road slopes.	<ul style="list-style-type: none"> <li>• Construction in the dry season.</li> <li>• Roadside plantation of suitable plants especially with Vetivers which are known to be highly effective.</li> <li>• Should be considered Highest Flood Level (HFL) (10-year flood level).</li> <li>• Need to be ensured construction of RCC road instead of bituminous carpeting or brick soling road, which is flood resilience and sustainable infrastructure as well environment friendly.</li> <li>• Ensure turf and slope maintain (top bottom ratio maintain).</li> </ul>
<b>Possibility of deforestation for Scheme implementation.</b>	<ul style="list-style-type: none"> <li>• Should be avoid deforestation, if it would be occur ED then ensure Tree plantation.</li> </ul>
<b>Possibility of increases use of top soil of cultivable land for construction of Scheme.</b>	<ul style="list-style-type: none"> <li>• Should be avoid uses of top soil of cultivable land and ensured sandy soil.</li> </ul>
<b>Water Supply</b>	
1. Tube wells, Water point rehabilitation, Dug Wells and Ring Wells with Hand pumps. 2. Spring protection in hill areas, Community reservoirs, Water harvesting facilities, Water treatment plants, Piped water supplies.	
POTENTIAL	MITIGATION MEASURES

<b>ENVIRONMENTAL EFFECTS</b>	
<b>Inundation:</b> Tube well contamination due to inundation during flood.	<ul style="list-style-type: none"> <li>• Should be considered Highest Flood Level (HFL) (10-year flood level).</li> </ul>
<b>Diseases caused by poor water quality:</b> Contamination by seepage from stagnant pools, latrines, municipal waste, agricultural areas or from leakage.	<ul style="list-style-type: none"> <li>• Appropriate location, apron and drainage around tube wells and dug wells to prevent formation of stagnant pools.</li> <li>• Provision of cover and hand-pump to prevent contamination of dug wells.</li> <li>• Where pit latrines are used tube wells should be located more than 10 meter from any water source.</li> <li>• Leak detection and repair of pipe networks.</li> <li>• Bacteriological testing of water quality from time to time.</li> </ul>
<b>Arsenic Prone Areas:</b> Contamination of tube well water with higher than standard.	<ul style="list-style-type: none"> <li>• Need to be ensured arsenic Contamination level test during Tube well installation (during boring).</li> </ul>
<b>Depletion of water source:</b> Over-exploitation of aquifers.	<ul style="list-style-type: none"> <li>• Abstraction limits for mechanical pumps and limits to numbers.</li> </ul>
<b>Health</b>	
1. Health centers (Dispensaries, Maternity clinics, Laboratories etc.)	
<b>POTENTIAL ENVIRONMENTAL EFFECTS</b>	<b>MITIGATION MEASURES</b>
Disease caused by inadequate collection and disposal of Medical and other wastes.	<ul style="list-style-type: none"> <li>• Promote separate collection and disposal system for medical or hazardous wastes.</li> <li>• Arrange for final disposal site.</li> </ul>
<b>Sanitation and Waste Management</b>	
<ol style="list-style-type: none"> <li>1. Public toilets/pit latrines, Soak pits and septic tanks.</li> <li>2. Sewerage facilities.</li> <li>3. Composting sites.</li> <li>4. Waste disposal facilities.</li> <li>5. Sewage treatment lagoons.</li> </ol>	
<b>POTENTIAL ENVIRONMENTAL</b>	<b>MITIGATION MEASURES</b>

EFFECTS	
<p><b>Contamination of water supplies:</b> Contamination of surface waters due to flooding or over-flowing and contamination of groundwater because of seepage.</p>	<ul style="list-style-type: none"> <li>• Where pit latrines are to be located more than 10m from any water source.</li> <li>• The base should be sealed and separated vertically 2m or more of sand or loamy soil from the ground water table.</li> <li>• Where night soil latrines or septic tanks are built they should be sealed. Outflows should drain either to a soak pit located at least 10m from any water source or be connected to a working drain.</li> <li>• Maintenance training to be delivered along with new facilities.</li> <li>• Need to be ensured proper cleaning on regular basis by community initiative.</li> <li>• Should be considered Highest Flood Level (HFL) of implemented Scheme (10-year flood level).</li> </ul>
<p><b>Vector borne diseases:</b> Breeding of insects.</p>	<ul style="list-style-type: none"> <li>• Prevent creation of stagnant pools of water.</li> <li>• Need to be ensured proper cleaning on regular basis by community initiative.</li> <li>• Should be considered Highest Flood Level (HFL) of implemented Scheme (10-year flood level).</li> </ul>
<b>Agriculture and Markets</b>	
<ol style="list-style-type: none"> <li>1. Animal Health Facilities (Vaccination yards, Tick dips etc.).</li> <li>2. Post-harvest handling facilities.</li> <li>3. Slaughterhouses and yards.</li> <li>4. Agro-processing facilities.</li> <li>5. Construction of market places including Livestock markets.</li> <li>6. Fish landing sites.</li> <li>7. Seasonal Earth dams.</li> <li>8. Terracing in hilly areas.</li> </ol>	
POTENTIAL ENVIRONMENTAL EFFECTS	MITIGATION MEASURES
Health and safety in work place.	<ul style="list-style-type: none"> <li>• Ensure adoption of known good practices at the work place.</li> </ul>
Siltation and erosion.	<ul style="list-style-type: none"> <li>• Ensure adoption of local best practices.</li> </ul>
Reduction of water available to downstream water users.	<ul style="list-style-type: none"> <li>• Ensure mitigation measures to avoid this.</li> </ul>
<b>Vector borne diseases:</b>	<ul style="list-style-type: none"> <li>• Prevent creation of stagnant pools of water.</li> </ul>
<b>Education</b>	
1. Construction of classrooms and officer room	

POTENTIAL ENVIRONMENTAL EFFECTS	MITIGATION MEASURES
Impacts during construction;	<ul style="list-style-type: none"> <li>• Management of construction period health and safety especially for school children.</li> <li>• Removal and proper disposal of construction wastes.</li> </ul>
Implemented Scheme affected by flood.	<ul style="list-style-type: none"> <li>• Should be considered Highest Flood Level (HFL) of implemented Scheme (10-year flood level).</li> </ul>
Possibility of Increases of uses fuel wood.	<ul style="list-style-type: none"> <li>• Need to be ensured alternative raw material instead of use of fuel wood.</li> </ul>
<b>Energy</b>	
<ol style="list-style-type: none"> <li>1. Rural electrical distribution</li> <li>2. Improved Cook stoves</li> <li>3. Biogas</li> <li>4. Photovoltaic cells based power supplies for emergency and public facilities</li> </ol>	
POTENTIAL ENVIRONMENTAL EFFECTS	MITIGATION MEASURES
Unsustainable grazing	<ul style="list-style-type: none"> <li>• Livestock grazing requirements for new herd for biogas projects should be ensured.</li> </ul>
Possibility of increases of use of fossil fuel for electrical distribution.	<ul style="list-style-type: none"> <li>• Need to be ensure use of renewable and environment friendly energy sources for electrification i.e. solar panel, wind turbine.</li> </ul>
<b>Natural Resource Management</b>	
<ol style="list-style-type: none"> <li>1. Afforestation (community Based projects on public land)</li> <li>2. Community tree nurseries</li> <li>3. Anti-erosion interventions (e.g., Slope, Stream and river bank protection with Vetiver)</li> <li>4. Demonstration nutrition gardens</li> <li>5. Wetland development</li> <li>5. Range land improvements</li> <li>6. Eco-tourism and hunting areas</li> </ol>	
POTENTIAL ENVIRONMENTAL EFFECTS	MITIGATION MEASURES
Wastes in unspoiled areas:	<ul style="list-style-type: none"> <li>• Arrange collection and disposal of wastes.</li> </ul>
Increased use of pesticides:	<ul style="list-style-type: none"> <li>• Use local best practice and IPM.</li> </ul>

# **ATTACHMENT – 8: GUIDELINES FOR USE OF PUBLIC & PRIVATE LANDS**

## **Land Use Principles**

The UPs/PSs will select to improve or build Schemes and implement them in manners to avoid or minimize use of additional public and private lands.

The UPs/PSs will use the following principles to avoid/minimize potential adverse impacts.

Where additional lands are required, the following measures will be considered to-

- Uses as much of public lands as possible
- Completely avoid displacement from private homesteads
- Avoid or minimize displacement of homesteads from public lands
- The UPs/PSs will in general avoid adversely affecting persons/households who are socioeconomically vulnerable.
- Use lands of lower value in terms of productivity and uses.
- Avoid affecting premises that are used for business/commercial activities.
- Avoid affecting religious sites like places of worship, cemeteries, and buildings/structures that are socially and historically important.

UPs will not undertake Schemes that will significantly restrict access of the communities, especially the socio-economically vulnerable members to common property resources that have been a source of their livelihood.

## **Mitigation Objectives**

The principles and guidelines provided in this framework are to avoid or minimize adverse impacts on public land users and private landowners, mitigate the impacts that are unavoidable, and assist to improve, or at least to restore, their living standards and income earning or production capacity to pre-scheme levels.

The following are more specific mitigation objectives of LGSP-3:

- Avoiding or minimizing displacement of persons and households who may have been using public lands for residential and livelihood purposes;
- Establishing guidelines and procedures to ensure that private land contributions are voluntary sought and accepted in transparent manners without causing unacceptable adverse impacts on the owners.
- Collectively deciding on community-based mitigation measures where private lands are required for critical Schemes and adverse impacts are to be shared together by many landowners. Such Schemes are likely to be rural roads that are to be expanded, drainage and irrigation canals.
- Where displacement of public land users is unavoidable, the UPs will assist the affected persons/households to relocate on available public lands in the surrounding area.

- The affected persons/households would be allowed to relocate on the same parcel of public land, where land is still available after the works on a Scheme.
- In cases of displacement of businesses from public land, such as small-scale roadside shops, the communities will assist them to relocate in the vicinity to ensure that they remain operational and do not lose income.
- Where voluntary contribution of private land is unavailable, contribution can be only sought through consultation or motivation etc.

### **Land Availability and Mitigation Issues**

The potential resettlement issues may be expected to arise where the UPs/PSs decide to build new Schemes or expand the existing ones on public and private lands. With the restriction on acquisition, public and private lands, wherever required, the UPs/PSs will obtain them through:

**Public Land:** Availability of public lands will primarily depend on current uses and users. Where the users are well-off and stoppage of further use of the lands would be socio-economically inconsequential, the UPs/PSs and communities may persuade them to relinquish occupancy of the lands. Where these lands are currently used for living and/or livelihood by the poor and vulnerable community members, the UPs/PSs and beneficiaries can obtain them by offering socio-economic rehabilitation measures acceptable to the affected persons/households. For both types of users, the following condition will however apply:

The current users will have the option to refuse to relinquish occupation of the lands without the fear of any adverse consequences.

**Private Land:** Voluntary Contribution is available for motivated private land owners for wellbeing of the community. The possible members of the community may voluntary select/elect to contribute lands or other assets without compensation.

**Voluntary Contribution of private land:** UPs/PSs can also seek to obtain private lands as contribution where landowners agree to contribute without the fear of adverse consequences.

Specific guidelines are as follows:

- Contributions must be voluntary, and the landowners will have the right to refuse contribution without the fear of revenge.
- Contributions should not be sought from small and marginal landowners who might be made impoverished by the action.
- If contributions are required, the concerned landowners should be consulted very early in the Scheme site selection process.
- Contributed lands should be free of legal disputes, claims and documented with the information required by land administration.

- A MoU will be signed with the private land contributor and UP/PS will ensure public access for community based Schemes.
- Records of contributions must be kept in the Scheme files and be available for inspection by LGD, World Bank and other interested parties.

### **Safeguard Categorization and Action Plan**

Given the scope of development works the UPs/PSs could undertake with small amount BBGs (about US\$ 5,700) and the restriction on land acquisition, it is determined that the Schemes would have no social safeguard impacts of any significant consequences. On the contrary, significant positive social and livelihood impacts are expected from the Schemes. As such, the project is categorized S3, and there would be no need for safeguard action plans.

The UPs/PSs would document the impacts and affected persons/households, mitigation measures agreed with them and verifiable evidence that the agreed measures have been implemented; the cases of voluntary private land contributions will also be documented with appropriate evidence, which will remain open to verification by IDA and other interested organizations.

### **Community/Stakeholder Consultation**

Community consultation will be a vital part of the Scheme selection and implementation process. In addition to general consultation about the benefits and feasibility of specific Schemes, the UPs/PSs will make absolutely certain that the users of lands (with and without legal rights), that are needed for a Scheme, are consulted very early in the selection process taking assistance from WC/WLCC. Consultations will focus on the issue of availability and the conditions under which the lands could be used. In cases, where the would-be affected persons are women, the UPs/PSs will arrange culturally appropriate consultations.

The UP/WC or PS/WLCC will prepare minutes of the consultations, indicating dates, and the details of the agreements reached. The affected persons will be provided with copies of the minutes signed by the affected persons and the UP Chairman/PS Mayor/Ward Member. Copies of all such signed minutes will be kept in the Scheme files and made available for inspection during supervision.

### **Verification**

The UPs/PSs will keep the Community Meeting Minutes, including records of persons/households who may have been displaced from public lands; voluntary contribution of private lands. To the extent applicable, these will be kept in each Scheme file with all other records, and will be available for inspection by concerned GOB officials and interested civil society groups.

## ATTACHMENT – 9: FORM-E ‘ASSESSMENT OF LAND CONTRIBUTION’

(In case of Land Donation)

### Fiscal Year Block Grant Used:

Name of District:		Name of Upazila:	
Name of Union/Paurashava:		Ward No:	
Name of WC/WLCC Chairman:			
Name of the Scheme:			
Uses of the Scheme:			
Scope of Work	[ ] New construction, [ ] Improvements, [ ] Repair/Renovation		
Scheme implemented within	-----Days		
No. of Users Affected	Squatters	Encroachers	Others (specify)
Private Lands Used (Voluntarily donation)	Total Amount (Tk)		Total No. of Owners
Accessibility of users	Yes	No	Tentative number of users

This form filled in by (Name of WC/WLCC Chair): .....

Signature:

Date:

This form verified by (Name of SSC Chair):.....

Signature:

Date:

## ATTACHMENT – 10: Form-F ‘MOU FOR CONTRIBUTION OF LAND’

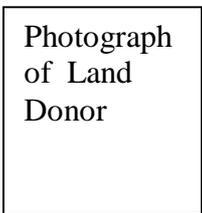
District	Upazilla	Union/Paurashava	Village Name

Khatian No.	Mouza Name	Mouza No.	Amount of land (decimal)

### **First Party**

**Name and address of the Land Contributor:**

Name :  
 Father’s Name :  
 Mother’s Name :  
 NID :  
 Contact Number :

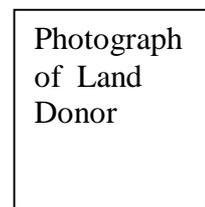


Permanent Address	Present Address

### **Second Party**

**Name and address of the Land Recipient (UP Chairman/PS Mayor):**

Name :  
 Father’s Name :  
 Mother’s Name :  
 NID :  
 Contact Number :



Permanent Address	Present Address

The following volunteer MoU has been made on ..... day of ..... between Mr./Ms. ...., the first party and ..... , the 2<sup>nd</sup> Party). That 1st party holds the legal right to the above mentioned land surrounded from eastern side by....., western side by....., northern side by ..... , and southern side by.....

That the Owner testifies that the land/structure is free of non-titled persons/households or encroachers and not subject to any other claims.

That the Owner hereby grants to the..... (name of the Recipient) this asset for the construction and development of the .....for the benefit of the community.

That the Owner will not claim any compensation against the contribution of this asset nor obstruct the construction process on the land in case of which S/he would be subject to sanction according to rules and regulations.

That this contribution is used for the implementation of the Scheme titled .....for public interest and will be accessible to all.

That the .....(name of the Scheme Proponent) agrees to accept this contribution of asset for the purposes mentioned above.

**Name and Signature of the Land Contributor**

.....

**Signature of Donated Land Receiver**

.....

**Witnesses:**

- 1.....President, Ward Committee/Ward Level Coordination Committee
- 2.....President, Scheme Supervision Committee
- 3.....Women Member, Scheme Supervision Committee

(Signature, name and address)

## ATTACHMENT-11: REPORTING & MONITORING OF ESMF ISSUES

Action	Responsible Action	Expected Output	Output to be Reviewed by and Actions'	Overall output to be submitted to
Public Consultation and Safeguards (SG) Screening during Scheme selection and design. (for all Schemes)	Ward Committee (WC).  Ward Level Coordination Committee (WLCC).	Safeguards Screening form (Attachment 2) given in this ESMF.  Copies of all Screening forms to be filed and maintained at Union/Paurashava level.  Scheme Supervision Committee (SSC) will review and sign all screening forms. If forms have problems, SSC will ask WC/WLCC to revise, and follow up till remedial actions are taken. All these will be documented and kept in the Scheme file at the UP office.	The UP/PS will discuss the review, problems and remedial actions at monthly meetings.  <b>A 6 monthly review:</b> Screening form review using a random sample and all SSC follow-up actions by the - DDLG (10% of total), supported by DF - BGCC or UZP (at the UZP level), supported by URT, (5% of the total). If UZP finds problems with screening forms, it will be communicated to DDLG.  DDLG will send written communication to UP/PS, SSC and respective WC/WLCC to take remedial action (e.g. re-screen the Scheme in a consultative process). DDLG with DF support will follow up the remedial actions. All of these will be documented and kept in DDLG and UP/PS files.	The DDLG will summarize findings highlighting the problems and remedial actions taken, and send the report to the LGD (NPD) as part of their six monthly reporting on general project progress.  Only if a problem cannot be resolved by DDLG, LGD (NPD) will be informed for taking action.
Review at Scheme Implementation. (for all Schemes)	SSC to supervise technical quality of implementation.	SSC to review and sign all implementation forms. If there is problem, SSC will ask WC/WLCC to revise, and follow up till remedial actions are taken. All these will be documented and kept in the Scheme file at the UP/PS office.	The UP/PS will discuss the review, problems and remedial actions at monthly meetings  <b>6 monthly review</b> Implementation form review using a random sample and all SSC follow-up actions by the - DDLG (10%), supported by DF - BGCC or UZP (at the UZ level), supported by URT, (5% of the total) If UZP finds problems with screening forms, it will be communicated to DDLG.  DDLG will send written communication to UP/PS, SSC and respective WC/WLCC to take remedial action. DDLG with DF support will follow up the remedial actions. All of these will be documented	The DDLG will summarize findings highlighting the problems and remedial actions taken, and send the report to the LGD (NPD) as a part of their six-monthly reporting on general project progress.  If a problem cannot be resolved by DDLG, LGD (NPD) will be informed for taking action.

Action	Responsible Action	Expected Output	Output to be Reviewed by and Actions	Overall output to be submitted to
			and kept in DDLG and UP/PS files.	
Safeguard Supervision Completion. (for all Schemes)	SSC at Ward level	Scheme Implementation Completion Record Form (attachment 3) given in this ESMF.  Copies of all Completion Record forms to be filed and maintained at Union/Paurashava level.	The UP will discuss the review, problems and remedial actions at monthly meetings  <b>An annual review:</b> Completion form review using a random sample by the - DDLG (5% of total), supported by DF - 5 % by BGCC or UZP (at the UZ level).	The DDLG will summarize findings highlighting the problems and remedial actions implemented, and send the report to the LGD (NPD) as a part of their annual reporting on general project progress.  PMU-LGD will review the DDLG report with technical support by the PMU-LGD Senior Environmental and Safeguard Specialist.
Initial Environmental Examination (IEE). (only for category B Schemes and applicable for Paurashava)	Paurashava Engineer	IEE form (attachment 6) given in this ESMF.  Copies of all IEE forms to be filed and maintained at Paurashava level. One copy of each IEE will be sent to the PMU-LGD Senior Environmental and Safeguard Specialist.	Senior Environmental and Safeguard Specialist will review 5% of IEE. This review will be done whenever IEEs are required. Consultant to make recommendation for correction, if any.	The PMU-LGD Senior Environmental and Safeguard Specialist will make sure any proposed changes to the Scheme design are included by the WC/WLCC.
Safeguards Review	PMU-LGD Senior Environmental and Safeguard Specialist	Annual Safeguards Review Report.  This review will give a status of ESMF implementation at the UP/PS level, It will include a review of all IEE and 1% random sample of Screening, implementation and Completion.	This review will be done annually and provide recommendations to LGSP-3 management and PMU-LGD on safeguard implementation.	NPD, Steering Committee and Development Partners will receive the report.  Based on the report, PMU-LGD will take actions (e.g. Strengthened training programs and refresher training)
Annual performance audit including Finance Management,	CA firms (will be trained in Safeguards compliance)	Audit findings with needed field check.	Two firms to review all audit reports, and send for corrections if any.  C&AG office 0.5% spot checks.	All audit reports to be submitted to PMU-LGD and shared with relevant UP/PS and disclosed in public.

Action	Responsible Action	Expected Output	Output to be Reviewed by and Actions*	Overall output to be submitted to
Procurement and Safeguards.				UPs/PSs with severe transgressions (Finance Management, Procurement and Safeguards) performance may not receive funds in the next FY and information will be disclosed to public. PMU-LGD can also take other actions.
Independent review of safeguards quality in a sample of Schemes.	Third party organization.	Independent Safeguards Review Report.  This independent review will give a status of ESMF implementation and safeguards management by PMU-LGD.	This review will be done at project Mid Term and at project Completion.	NPD, Steering Committee and Development Partners will receive the report.  Strengthened training programs and refresher trainings.

\*Depending on final iterations at the project design level, the implementation arrangements for the ESMF may be edited to reflect any changes to the names of responsible agents, etc.

## **ATTACHMENT -12: ENVIRONMENTAL CODE OF PRACTICE (ECOP)**

The Environmental Code of Practice (ECoP) is a guideline for reduce or eliminate environment risk due to various activities associated with different types of Schemes considered in the LGSP-3. This has been referred from MGSP and will be applicable for Paurashavas.

### **ECoP 1.0: Planning and Design Phases of a Project**

#### *1.1 General*

This code of practice details the factors to be considered during project preparation to avoid/address environmental concerns through modifications in project design and incorporation of mitigation measures.

#### *1.2 Finalization of Alignment/Project Location*

- Adequate consultations with the communities to identify the concerns and preferences need to be taken up during selection of the alignment.
- Alignment shall conform to the natural topography as far as possible to avoid excessive cut and fill.
- Special care should be taken to align the roads along the hillside, which is stable and where cutting on hillside causes least disturbance.
- Consultations with the local communities are to be conducted to obtain their suggestions and incorporate their concerns to address the potential environmental impacts.
- In case of flood prone areas and/or areas with very flat slopes, hydrological surveys have to be conducted before alignment finalization.

#### *1.3 Compliance to Legal Requirements*

The bid document shall include the various applicable clearances pertaining to environmental management and shall contain the necessary procedures for compliance of the same.

#### *1.4 Cost Estimation*

Some activities included in ECoP 1.0 have certain monetary involvement. These activities are outlined below:

1. There will be one Focus Group Discussion (FGD), with at least 15 participants from different communities of the society, for adequate consultations to identify the concerns and preferences related to a particular infrastructure development project.
2. Two surveyors will carry out a Key Informant Information (KII) of at least 50 participants from different communities of the society affected by the infrastructure development project.
3. Two surveyors will carry out a hydrological survey before finalizing alignments and/or reduced levels for infrastructure development projects in a flood prone area and/or with very flat slopes.

## **ECoP 2.0: Site Preparation**

### *2.1 General*

The preparation of site for construction involves:

- i. Marking and clearance of the required project area of all encroachments by the city government prior to mobilization of Contractor;
- ii. Informing the local community about construction schedule; and
- iii. Site preparation by the contractor prior to commencement of construction. Scope of this ECoP includes only the measures to address environmental concerns expected during the site preparation.

### *2.2 Site Preparation Activities by the Paurashavas*

- Informing the community and local village councils about the likely schedule of construction
- After obtaining the consent of the community the Paurashavas shall be responsible to stake out the Scheme locations.

### *2.3 Site Preparation Activities by the Contractor*

- The contractor shall submit the schedules and methods of operations for various items during the construction operations to the Paurashavas for approval.
- The clearance of site shall involve the removal of all materials such as trees, bushes, shrubs, stumps, roots, grass, weeds, part of topsoil and rubbish. Towards this end, the Contractor shall adopt the following measures:
  - To minimize the adverse impact on flora and vegetation, only ground cover/shrubs that impinge directly on the permanent works shall be removed.
  - In locations where erosion or sedimentation is likely to be a problem, clearing and grubbing operations should be so scheduled and performed that grading operations and permanent erosion and sedimentation control features can follow immediately, if the project conditions permit.
  - The disposal of wastes shall be in accordance with the provisions of ECoP 7.0, “Waste Management”.
  - All regulatory clearances shall be obtained before actual start of work.

## **ECoP 3.0: Construction Camps**

### *3.1 General*

ECoP 3.0 provides guidelines on the selection, development, maintenance and restoration of construction camp sites in order to avoid or mitigate against significant adverse environmental effects, both transient and permanent.

### *3.2 Construction Camp Sighting*

During planning of the works consideration shall be given to the location of construction camps for the Scheme. Construction camps and areas identified that may be suitable for the development of such camps shall be raised in consultation with the Engineer of the concerned Paurashavas. Areas those are not suitable for reasons such as environmental, cultural or social sensitivity shall also be identified. Wherever possible, construction camps

shall be planned in areas that will have minimal adverse environmental effects. In identifying such areas particular care shall be taken to evaluate the adverse effects of water, noise and air pollution, which, although transient, will preclude the use of some areas as construction camp sites.

### 3.3 *Construction Camp Location*

Construction camp sites shall be located such that permanent adverse environmental effects can be avoided or mitigated against and transient adverse environmental effects are minimized. Camp sites shall not be located in areas identified during the planning stage as unsuitable for such use. The site or sites shall be selected such that mitigation measures stipulated in this ECoP can be implemented with reasonable facility.

### 3.4 *Private Land*

Where construction camps are to be located on land outside the road reserve the contractor shall obtain the approval of the landowner to establish the camp site on such land and pay agreed compensation as per the *Resettlement and Rehabilitation Framework*. Environmental protection measures established by this ECoP shall apply to all land regardless of ownership.

### 3.5 *Construction Camp Facilities*

The construction camp shall be provided with the following minimum facilities:

- A perimeter security fence at least 1.5m in height constructed from appropriate materials.
- Ablution block with a minimum of one water closet toilet or Pota-cabin, one urinal and one shower for personnel engaged either permanently or temporarily on the project. Pota-cabins or separate toilet and wash facilities shall be provided for male and female employees.
- A sickbay and first aid station.
- Areas for the storage of fuel or lubricants and for a maintenance workshop. Such an area shall be bounded and have a compacted/impervious floor to prevent the escape of accidental spillage of fuel and or lubricants from the site. Surface water drainage from bounded areas shall be discharged through purpose designed and constructed oil traps. Empty fuel or oil drums may not be stored on site.
- Storm water drainage system to discharge all surface run off from the camp site to a silt retention pond which shall be sized to provide a minimum of 20 minutes retention for storm water flow from the whole site that will be generated by a 20 year return period rainfall having duration of at least 15 minutes. The run-off coefficient to be used in the calculation of the silt pond volume shall be 0.9. Silt ponds shall be maintained in an efficient condition for use throughout the construction period with trapped silt and soil particles being regularly removed and transported and placed in waste material disposal areas as per ECoP7.0.
- All discharge from the silt retention pond shall be channeled to discharge to natural water via a grassed swale at least 10 meters in length with suitable longitudinal gradient.
- All camp facilities shall be maintained in a safe clean and or appropriate condition

throughout the construction period.

### 3.6 *Construction Camp Development Plan*

A development plan of the construction camp shall be prepared describing the following:

- Perimeter fence and lockable gates
- Workshop
- Accommodation
- Ablutions
- Water supply
- Wastewater disposal system
- Bounded fuel storage area
- Proposed power supply
- Proposed all weather-surfaced areas.

### 3.7 *Site Restoration*

At the completion of the construction work, all construction camp facilities shall be dismantled and removed from the site and the whole site restored to a similar condition to that prior to the commencement of the works or to a condition agreed to with the owner of the land.

All oil or fuel contaminated soil shall be removed from the site and transported and buried in waste soil disposal areas.

## **ECoP 4.0: Borrow Areas**

### 4.1 *General*

Embankment or filling material is to be procured from borrow areas designated for the purpose. The scope of this ECoP extends to measures that need to be incorporated during borrow area identification, material extraction and rehabilitation with regard to environment management.

### 4.2 *Pre-construction Stage*

The contractor shall identify the borrow area locations in consultation with the owners, after assessing the suitability of the material. The suitable sites shall be selected and finalized in consultation with the Paurashavas.

### 4.3 *Construction Stage*

The contractor should adopt the following precautionary measures to minimize any adverse impacts on the environment:

- i. Borrow pits situated less than 0.5 km (if unavoidable) from villages and settlements should not be dug for more than 30 cm after removing 15cm of topsoil and should be drained.
- ii. The Contractor shall maintain erosion and drainage control in the vicinity of all borrow pits and make sure that surface drains do not affect the adjacent land or future reclamation.

- iii. In case the borrow pit is on agricultural land, the depth of borrow pits shall not exceed 45 cm and may be dug out to a depth of not more than 30 cm after stripping the 15 cm top soil aside.
- iv. In case of riverside, borrow pit should be located not less than 15m from the toe of the bank, distance depending on the magnitude and duration of flood to be withstood.

#### *4.4 Post Construction Stage*

It needs to be ensured that all reclamation has been carried out in accordance with the restoration plan. Certificate of Completion of Reclamation is to be obtained by the Contractor from the landowner that “the land is restored to his satisfaction”. The fin

### **ECoP 5.0: Topsoil Salvage, Storage and Replacement**

#### *5.1 General*

Loss of topsoil will be a long-term impact along implementation of different infrastructure development projects by different Paurashavas under the LGSP-3 due to-

- i. Site clearance and excavation for road, markets, embankment and other infrastructures
- ii. Development of borrow areas
- iii. Temporary construction activities as material storage locations, diversion routes etc.

Scope of this ECoP includes removal, conservation and replacement of topsoil.

#### *5.2 Pre-construction Stage*

The arrangements for temporary usage of land, borrowing of earth and materials by the Contractor with the land owner shall include the conservation/preservation of topsoil.

#### *5.3 Construction Stage*

- The stockpiles for storing the topsoil shall be designed such that the slope does not exceed 1:2 (vertical to horizontal), and the height of the pile is restricted to 2m.
- In cases where the topsoil has to be preserved for more than a month, the stockpile is to be stabilized within 7 days. The stabilization shall be carried out through temporary seeding. It consists of planting rapid-growing annual grasses or small grains, to provide initial, temporary cover for erosion control.
- After spreading the topsoil on disturbed areas, it must be ensured that topsoil is seeded, and mulched within 30 days of final grading.
- During construction, if erosion occurs from stockpiles due to their location in small drainage paths, the sediment-laden runoff should be prevented from entering nearby watercourses.
- The Contractor shall preserve the stockpile material for later use on slopes or shoulders.

#### *5.4 Post Construction Stage*

- The topsoil shall be re-laid on the area after taking the borrow earth to maintain

fertility of the agricultural field, finishing it to the required levels and satisfaction of the farmer.

- All temporary arrangements made for stockpile preservation and erosion control are to be removed after reusing the stockpile material.

## **ECoP 6.0: Slope Stability and Erosion Control**

### *6.1 General*

- Stability of slopes is a major concern in hill areas and locations of high embankment.
- Soil erosion is consequent to high runoff on hill slopes, high wind velocities cause erosion of embankments made up of cohesion-less sandy soils.
- Embankments made up of silty and sandy soils are eroded, in the absence of vegetative cover, when the slopes are steep, say more than 20 degrees.
- Erosion control is provided to prevent soil damage done by moving water.
- The scope of this ECoP includes measures to minimize the adverse environmental impacts on slope stability and soil erosion due to the construction of embankments.

The adverse environmental impact can be:

- i. damage to adjacent land,
- ii. silting of ponds and lakes disturbing the aquatic habitat
- iii. erosion of rich and top fertile top layer of soil
- iv. contamination of surface water bodies and
- v. Reduction in road formation width due to erosion of shoulders/berms

### *6.2 Pre-construction Stage*

- Interceptor ditches are constructed in hill areas to protect the road bench and hillside slope from erosion due to heavy rainfall and runoff.
- Interceptor ditches are very effective in the areas of high intensity rainfall and where the slopes are exposed

### *6.3 Construction Stage*

- The vegetative cover should be planted in the region where the soil has the capacity to support the plantation and at locations where meteorological conditions favors vegetative growth.
- On side slopes in hills, immediately after cutting is completed and debris is removed, vegetative growth has to be initiated by planting fast growing species of grass.
- In regions of intensive rainfall, locations of steep slopes, regions of high soil erosion potential and regions of short growing seasons, erosion control matting should be provided.
- Adequacy of drainage for erosion control

### *6.4 Post Construction Stage*

All the exposed slopes shall preferably be covered with vegetation using grasses, bushes etc. Locally available species possessing the properties of (i) good growth (ii) dense ground cover

and (iii) deep root shall be used for stabilization.

## **ECoP 7.0: Waste Management**

### *7.1 General*

This code of practice describes procedures for handling, reuse and disposal of waste materials during construction. The waste materials generated can be classified into

- i. Construction Waste and
- ii. Domestic waste.

### *7.2 Pre-construction Stage*

- The contractor shall identify the activities during construction that have the potential to generate waste and work out measures for the same in the construction schedule.
- The Contractor shall educate his workforce on issues related to disposal of waste, the location of disposal site as well as the specific requirement for the management of these sites.

### *7.3 Construction Stage*

- The contractor shall either re-use or dispose the waste generated during construction depending upon the nature of waste.
- The contractor shall dispose off wastes that could not be re-used safely.
- The waste management practices adopted by the Contractor shall be reviewed by the Paurashavas during the progress of construction.

### *7.4 Post Construction Stage*

- After decommissioning of construction sites, the Contractor shall hand over the site after clearing the site of all debris/wastes to the Paurashavas.
- In case of disposal of wastes on private land, certificate of Completion of Reclamation is to be obtained by the Contractor from the landowner.

## **ECoP 8.0: Water Bodies**

### *8.1 General*

Water bodies may be impacted when the infrastructure development project activities are adjacent to it or the runoff to the water body is affected by change of drainage pattern due to construction of embankment. The following activities are likely to have an adverse impact on the ecology of the area:

- i. Earth moving
- ii. Removal of vegetation
- iii. Waste disposal from construction works

### *8.2 Pre-Construction Stage*

When there is interruption to regular activities of Pourashava inhabitants near water body due to construction or rehabilitation work, following are the Contractor's responsibilities:

- i. Restriction on use of water during construction, if any, should be intimated to the community in advance.

- ii. Alternate access to the water body is to be provided in case there is interruption to use of existing access.
- iii. If the water body affected is a drinking water source for a habitation, alternate sources of water are to be provided to the users during the period for which its use is affected.

### 8.3 Construction Stage

- It should be ensured by the contractor that the runoff from construction site entering the water body is generally free from sediments.
- Silt/sediment should be collected and stockpiled for possible reuse as surfacing of slopes where they have to be re-vegetated.
- Cutting of embankment reduces the water retention capacity and also weakens it, hence:
  - i. The contractor should ensure that the decrease in water retention should not lead to flooding of the construction site and surroundings causing submergence and interruption to construction activities.
  - ii. Any perceived risks of embankment failure and consequent loss/damage to the property shall be assessed and the contractor should undertake necessary precautions as provision of toe protection, erosion protection, sealing of cracks in embankments. Failure to do so and consequences arising out of embankment failure shall be the responsibility of the contractor. The Paurashavas shall monitor regularly whether safe construction practices near water bodies are being followed.
- Alternate drain inlets and outlets shall be provided in the event of closure of existing drainage channels of the water body.
- Movement of workforce shall be restricted around the water body, and no waste from construction sites shall be disposed into it.

### 8.4 Post Construction Stage

- The zones of the water body have to be left clean and tidy with the completion of construction.
- Engineers of the Paurashavas will check if drainage channels of adequate capacity have been provided for the impacted water body.

## **ECOP 9.0: Water Qualities**

### *9.1 General*

- Small-scale road construction, small-scale drainage, and small-scale embankment construction may affect the aquatic environment, by lowering or raising water levels, and decreasing water quality.
- Deterioration of water quality and disturbance of aquatic environment by lowering or rising of water levels.

### *9.2 Pre-Construction Stage*

Following measures are to be undertaken by the contractor prior to the commencement of

construction:

- Base line data of the water quality is necessary.
- In addition, the availability of enough water during the lean season needs to be assessed as part of the baseline data collection.

### *9.3 Construction Phase*

- Improper disposal of solid and liquid waste including excreta generate from sites will pollute the water quality and proper prevention measure should be taken.
- Wastewater disposal, sanitation/latrines may have positive cumulative effects on human health, but if not improperly implemented may affect ground and surface and ground water quality; the contractor should give proper attention on it during construction stage.
- Protect water bodies from sediment loads by silt screen or bubble curtains or other barriers.

### *9.4 Post Construction*

- Inspection of water quality shall be done regularly.

## **ECOP 10.0: Drainage**

### *10.1 General*

- Drainage is designed for and installed on roads to direct surface or subsurface flow away to a safe outfall without damage to the structure, adjoining property or agricultural fields.
- A road with good drainage is a good road. Inadequate and faulty drainage arrangements result in obstruction to natural drainage pattern. Provision of cross-drainage and longitudinal drainage increases the life of the road and consequently reduces water logging and related environmental impacts.
- The present code seeks to address the environmental concerns related to drainage aspects during different stages of the project execution.

### *10.2 Pre-Construction Stage*

- Following measures are to be undertaken by the contractor prior to the commencement of construction:
  - i. The downstream as well as upstream user shall be informed one month in advance
  - ii. The contractor shall schedule the activities based on the nature of flow in the stream.
  - iii. The contractor should inform the concerned departments about the scheduling of work. This shall form part of the overall scheduling of the civil works to be approved by Paurashavas.
  - iv. Erosion and sediment control devises, if site conditions so warrant, are to be installed prior to the start of the civil works.
  - v. All the safety/warning signs are to be installed by the contractor before start of construction

- In case of utilization of water from the stream, for the construction, the contractor has to take the consent from the concerned department.

### *10.3 Construction Phase*

- Drainage structures at construction site shall be provided at the earliest to ensure proper compaction
- In hill areas sub-surface drains, if required, shall be provided immediately after cutting the slopes and forming the roadbed (sub grade).
- Safety devises and flood warning signs to be erected while working over streams and canals.

### *10.4 Post Construction*

- Inspection and cleaning of drain shall be done regularly to remove any debris or vegetative growth that may interrupt the flow.
- Temporary structures constructed during construction shall be removed before handing over to ensure free flow through the channels.

## **ECoP 11.0: Public Health and Safety**

### *11.1 General*

The safety and health of the public is impacted due to the hazards created during the construction period. This code of practice describes the measures that need to be taken to mitigate the impacts.

### *11.2 Pre-construction Stage*

- In order to incorporate public health and safety concerns, the Paurashavas and the Contractor shall disseminate the following information to the community:
  - i. Location of Scheme activities,
  - ii. Borrow areas,
  - iii. Extent of work
  - iv. Time of construction
  - v. Involvement of local labors in the road construction
  - vi. Health issues - exposure to dust, communicable diseases etc.

### *11.3 Construction Stage*

- The Contractor shall schedule the construction activities taking into consideration factors such as:
  - vii. Sowing of crops
  - viii. Harvesting
  - ix. Local hindrances such as festivals etc.
  - x. Availability of labor during particular periods
- Proper safety/warning signs are to be installed by the contractor to inform the public of potential health and safety hazard situations during the construction phase in the vicinity of the project.
- The Paurashavas shall carry out periodic inspections in order to ensure that all the

measures are being undertaken as per this ECoP.

#### *11.4 Post-construction Stage*

The construction site shall be cleaned of all debris, scrap materials and machinery on completion of construction for the safety of public and users.

### **ECoP 12.0: Material Storage, Transport and Handling**

#### *12.1 General*

Activities related to materials storage, handling, and transfer that are considered to potentially have negative environmental effects include:

- Transportation, storage, handling and of construction materials;
- Storage, handling, and transfer of petroleum, oil, and lubricant (POL) products;
- Application of asphaltic concrete and asphalt binder;
- Storage and handling of hazardous materials other than POL products; and
- Storage and application of road salt and sand.

Some materials used during implementation of projects associated with LGSP-3 may have potentially hazardous effects on the environment if not properly stored and handled.

#### *12.2 Transportation, Handling and Storage of Cement and Aggregates*

- The Contractor shall be responsible for ensuring that all trucks and carriers are clean and dry prior to loading them with cement or aggregates. All trucks and carriers for transporting cement/aggregates shall be equipped with weather proof closures on all openings.
- All cement/aggregates that will be brought to the site shall be kept free from contact with deleterious matter.
- All cement/aggregates shall be placed on impervious mat spread over the storage area to prevent direct contamination of top soil in the storage area. Stockpiling of cement/aggregates should be limited to minimum space and should be covered with weatherproof closures.
- Stockpiles shall be built up in horizontal or gently sloping layers. Overlap of different materials shall be prevented by suitable walls of ample distance between stockpiles.
- The Engineer shall approve the site for the storage of all aggregates.
- The Engineer shall approve the methods of handling aggregates and the equipment used.

#### *12.3 Environmental Concerns with Materials used for Construction and Maintenance of Infrastructure Development Projects.*

Concerns are related to accidental releases into the environment, such as spills, refueling losses, and leakage from equipment that could result in contamination of soil, groundwater, or surface waters.

Groundwater may transport the contaminants off-site to down-gradient aquifers or water supplies, or discharge them into surface waters. Therefore, release of potential contaminants on the ground surface could have significant environmental impacts that could ruin groundwater (well supplies).

#### *12.3.1 Petroleum, Oil, and Lubricants*

The toxic effect of a petroleum product in the aquatic environment varies considerably due to the different chemical composition of each petroleum product. The toxicity of petroleum products is related largely to its solubility in water. Petroleum pollution from accidental spills may affect aquatic birds, fish and vegetation. The effect of oil on birds' feather polluting the water may also be toxic to birds if they ingest it. Plants in marshes or in wetlands (haor, baor, ponds and others) and steams may die off for short periods. Long-term impacts of spilled petroleum products are associated with the portion, which sinks and becomes incorporated into bottom sediments. This causes the petroleum products to degrade very slowly and they may persist for many years.

Petroleum products can stick to the gills of fish and interfere with normal respiration. Under relatively mild pollution, fish may produce mucus as a defensive mechanism to remove the oil. However, in heavy pollution, this mechanism is inefficient and the oil tends to accumulate on the gills and smother the fish. Petroleum products contain soluble materials, which can be ingested by fish. The flavor of the fish flesh may, therefore, become tainted, or if ingested in enough quantity, may become lethal. Groundwater sources contaminated with petroleum products may have potentially toxic effects on consumers.

#### *12.3.2 Asphalt Products*

Environmental concerns with tack asphalt binder, and asphaltic concrete are also related to the hydrocarbon components, which are toxic to aquatic life, wildlife, and humans. As mentioned above, if these materials sink to the bottom, they may des eggs or emerging fry.

#### *12.3.3 Other Hazardous Materials*

The following hazardous materials are used in structures construction or maintenance activities and have potential environmental concerns:

- Paints;
- Solvents; and
- Fresh concrete and admixtures.

Paint materials, which are lead –or oil-based, may affect aquatic life if significant amounts enter a watercourse. Specific concern exists with lead, as this compound may have a direct toxic effect on young fish. Toxins can accumulate over time in aquatic fish, bugs, and plants. Upon consumption by animals such as birds and small mammals, some metals could be transferred to the consumer and affect their health.

Some solvents used for cleaning purposes may contain components, which are toxic to aquatic life, wildlife, and humans. If solvents enter a watercourse/water supply, and

significant concentrations occur in the water, this could be harmful to users.

Concrete, which is typically made up of aggregates, cement, water, and possibly admixtures, is very alkaline because of its calcium (lime) content. If concrete enters a watercourse in significant amounts, the pH of the water may be affected locally over the short-term. If the pH of the receiving water is altered, this may cause physiological stress in fish, which may result in death.

#### *12.4 Storage, Transport and Handling of POL Products*

Care must be taken with the storage, transfer, handling of POL products to prevent potential environmental damage. All empty containers and drums shall be returned to the maintenance depot. It shall be ensured that all drums and containers are closed and not tipped over and all waste oil, lubricants, and solvents shall be stored in closed containers.

##### *12.4.1 Storage*

Any container, drum, or tank that is dented, cracked, or rusted will probably eventually leak. Make sure all containers, drums, and tanks that are used for storage are in good condition. Check for leakage regularly to identify potential problems before they occur.

The proper storage of materials will greatly reduce the risk of accidental spills or discharges into the environment.

For temporary outdoor storage, put containers and drums in clearly marked areas, where they will not be run over by vehicles or heavy machinery. The area should preferably slope or drain to a safe collection area in the event of a spill. Tanks should have appropriate secondary containment (i.e. double-walled or surrounded by a dyke) that will collect spilled material in case of a leak. Permanent storage areas for containers or drums should be on an impermeable floor that slopes to a safe collection area in the event of a spill or leak.

##### *12.4.2 Transport and Handling*

At all times when products are being handled or transported, care must be taken to prevent any product from being spilled, misplaced, or lost and possibly entering and contaminating the soil or a natural waterway. When equipment and vehicle maintenance or repair is required in the field, it should be undertaken at least 30 m away from any watercourse. Minimize the potential for entry of hydraulic fluids or oil into a watercourse by using sorbent materials to collect spilled petroleum products. Return all used sorbent materials to the appropriate storage yards for safe disposal.

Return all diesel or fuel used to wash asphalt emulsion pumps to the maintenance depot for safe storage or disposal. Also return all solvents used to wash spray-painting or other equipment to the appropriate storage yards for safe disposal.

Wash equipment in maintenance areas equipped with oil/water separators so that any petroleum products can be removed prior to discharge of the wastewater. Oil/water separators

are only effective if they are properly maintained. At sites without oil/water separators, minimize the amount of wash water used and wash in areas where the potential for entry of wash water into a waterway is minimized by proper grading or curbing.

Tankers should not be washed near watercourses. Wash out should be done in places where proper grading or curbing minimizes the potential for entry of wash water into a waterway. Re-fuelling or servicing of equipment and vehicles to be done at least 30 m away from any watercourse. Re-fuelling over liner material with an absorbent pad (e.g. sand bed) will help to contain potential spills. If re-fuelling is done from a bulk tanker, the hose/nozzle assembly should be replaced to its proper position upon completion.

### *12.5 Spills and Spill Cleanup*

Quick action in the event of a spill of hazardous materials is important in order to prevent environmental damage.

Things to do when a spill occurs:

1. Identify the material Involved and make a quick assessment:
  - How extensive is the spill?
  - Are there any watercourses nearby?
  - Are the watercourses down gradient from the spill?
  - Are there drainage systems down gradient from the spill, which lead to a nearby watercourse?
2. Stop the flow of product, if it can be done safely.
3. Notify the Engineer and Authorities immediately.
4. Control and contain spilled product until expert help arrives, if it can be done safely.

#### *12.5.1 How to Control and Contain a Spill*

When a limited oil spill occurs on level land, scoop up the affected soil and dispose at a site approved by the Engineer and the Department of Environment. When an extensive oil spill occurs on level land, dig sump hole and pump excess oil into a temporary container. The remaining contaminated soil must be scooped up and disposed of at a site approved by the Engineer and the Department of Environment.

When an extensive spill occurs on a slope or hillside, a trench can be dug downhill from the spill to intercept the spilt material.

Should petroleum products reach a watercourse, several temporary spill containment measures can be used to help stop the spreading of products.

### *12.6 Storage and Handling of Dangerous Materials*

Workers may be at risk from exposure to dust particles or toxic fumes from chemicals used in road works and materials testing.

Specific measures to reduce risks include limiting time of exposure to dust particles,

chemicals and noise; enhancing safety and inspection procedures; and improving materials safe handling.

### **ECoP 13.0: Vegetation Management**

#### *13.1 General*

- Besides improving aesthetics and ecology of the area, the vegetation provide fuel wood, act as noise barriers, provide visual screen for sensitive areas and also generate revenue by sale of its produce.
- This code of practice elaborates on the approach towards planting trees. Emphasis has been laid on a greater involvement of communities in planting and maintenance of trees.

#### *13.2 Project Planning and Design Stage*

- Tree felling, if unavoidable, shall be done only after compensatory plantation of at least three saplings for every tree cut is done.
- The species shall be identified in consultation with officials of forest department/local community, giving due importance to local flora. It is recommended to plant mixed species in case of both avenue or cluster plantation.
- The plantation strategy shall suggest the planting of fruit bearing trees and other suitable trees.

#### *13.3 Post-construction Stage*

- The project proponents would take up the planting of fruit bearing and other suitable trees, on both sides of the roads or other infrastructure development projects location from their own funds.
- Watering of trees during the initial period of two to three years shall be the responsibility of the Paurashavas or the agency designated by it.

### **ECoP 14.0: Natural Habitats**

#### *14.1 General*

- This code of practice envisages measures to be undertaken during implementation of LGSP-3 infrastructure development projects by the Paurashavas near natural habitats. These measures shall be undertaken in addition to the measures laid down in the other ECoPs.
- As per the World Bank OP 4.04, the conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. A precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development has been adopted for the project.

#### *14.2 Pre-construction Stage*

Contractor in consultation with forest ranger or any other concerned authority shall prepare a schedule of construction within the natural habitat. Due consideration shall be given to the time of migration, time of crossing, breeding habits and any other special phenomena taking

place in the area for the concerned flora or fauna.

#### *14.3 Construction Stage*

- Collection of any kind of construction material from within the natural habitat shall be strictly prohibited.
- Disposal of construction waste within the natural habitat shall be strictly prohibited.

#### *14.4 Post Construction Stage*

- The infrastructure development projects near the natural habitat shall be declared as a silence zone.
- Compensatory tree plantation within the project area shall be done.
- The Paurashavas must ensure maintenance of drainage structure as per ECoP 10.0.

### **The Cost Estimation of ECoPs**

Some activities included in ECoPs have certain monetary involvement. The generic method of determining the cost of the ECoP is outlined below:

1. The Engineer of the Paurashavas will carry out a survey of the intended project site to identify appropriate locations and also identify sites unsuitable in terms of topography, proximity to water courses, and environmental sensitive areas such as forests, wetlands, or other sensitive area.
2. Survey and monitoring works must be carried out, by Engineer appointed by the Paurashavas authorities, throughout the pre-construction, construction, and post-construction phases to make sure the items and specifications (e.g low cost sanitation facilities, top soil management, waste disposal, tree plantation, storm water drainage etc) provided in this ECoP are properly addressed and estimated the cost.