WESTERN ECONOMIC CORRIDOR AND REGINAL ENHANCEMENT PROGRAM (WeCARE)

Terms of Reference for Consulting Services

Consulting Services for Feasibility and Preliminary Design of Rural Economic Infrastructure in districts of Jashore, Jhenaidah, Chuadanga, and Magura in Bangladesh

1. BACKGROUND

1.1. The Government of Bangladesh has requested World Bank to finance Western Economic Corridor and Regional Enhancement Program (WeCARE), to be implemented as a multi-phased programmatic approach in three phases (10 years). The implementing agencies are Roads and Highways Department (RHD) and Local Government and Engineering Department (LGED).

1.2. The proposed program will comprise of upgrading 260km of existing highway corridor (hereafter referred to as the “program corridor”); upgrading and rehabilitating feeder roads; complementary logistics infrastructure improvements; and road sector modernization and capacity building. The program will also support the laying of Optical Fiber/Utility duct along the program corridor and selected feeder roads. The Asian Infrastructure Investment Bank (AIIB) will also support the program and finance the upgrading of 160Km (Jhenaidah-Bonpara–Hatikamrul) of the program corridor through a parallel financing arrangement. The proposed program development objective (PrDO) is to improve regional connectivity, logistics efficiency in the western region, and road sector management in Bangladesh.

1.3. The program would have five components - Upgrading Highway Corridor; Upgrading and rehabilitating feeder connectivity infrastructure; Modernization of Rural Markets and Growth Centers to promote agricultural value chain, Complementary logistics infrastructure improvements; Road sector modernization and capacity building; and Contingent Emergency Response.

1.4 A separate consulting firm has been engaged to shortlist packages of investments in the districts of Jashore, Jhenaidah, Chuadanga, and Magura.

Annex 1 provides the physical and other available information for the proposed Western Economic Corridor and Regional Enhancement Program (WeCARE). The Consultant is advised to use this information as reference and are required to conduct due verification, as necessary.

Annex 2 contains a generic TOR, to be adapted and refined by the Consultant, for Planning concept for Upgrading and rehabilitating feeder road connectivity infrastructure. Similarly,

Annex 3 contains a sample logical framework, to be adapted and refined by the Consultant, for the detailed economic analysis including support to DPP preparation and relevant activities.
2. **Objective of Consulting Service/Study and Scope**

The main objective of this Consulting service (the Services) is for the following:

1. **Feasibility study of the rural roads (Upazila, Union and Village Road Type A and B) that directly or indirectly connected with the pre-identified Growth Centers and rural markets**;
2. **Preliminary architectural planning of the identified Growth Centers, Rural Markets**;
3. **Detail economic analysis of proposed subprojects**;
4. **Propose shortlist subprojects according to economic analysis, preliminary design and architectural planning**;
5. **Preliminary Cost estimate of each subproject including Environmental, Social and Health Safety and laying fiber optic cable duct**;
6. **Prepare Terms of Reference (TOR) for Project Management Consultant (PMC) for Phase I**.
7. **Provide all documents that will assist the Project Director in DPP preparation including logical framework of Economic Corridor Concept**.

3. **Scope of Services**

To fulfill scope of services could be but not limited to:

3.1 **Feasibility study of roads connected with identified Market Centers:**
   a. Feasibility study of potential LGED rural road network and other arterial roads connected with identified Growth Centers and Markets under “Western Economic Corridor and Regional Enhancement Program (WeCARE)” and synergizing connectivity;
   b. Integrate of Railway stations to the road network with the best possible connectivity;
   c. Identify the new and possible linkage with proposed Economic Zone in consultation with BEZA or BEPZA;
   d. Integrate Road with Riverine/Water route, Multimodal Transport in consultation with BIWTA;
   e. Identify the needs for Road Safety infrastructures and pertinent recommendations;
   f. Prepare effective plan considering Urban-Rural Linkage that will enhance the employment generation as well as stop the migration of the people towards the city area;

3.2 **Planning aspects:**
   a. Planning of the Identified potential Growth centers, Markets and Ghats associated with road networks to reviewed and preparation of improvement proposal keeping the theme of “Amar Gram Amar Shahor” (My village is my town) concept;
   b. Identification of collection hub or collection center at or near to alignments proposed for improvement. These hub or collection center will be used for collection of harvested agricultural product and will ensure an effective agricultural value chain;
   c. Identify Landscaping requirements

3.3 **Conduct detailed economic analysis of shortlisted subprojects**;

3.4 **Identify the alignment for “Fiber Optic Cable” that will be engraved along the proposed alignment under WeCARE. World Bank already engaged an individual consultant to prepare a business plan on this**;

3.5 **Prepare preliminary Cost Estimates as per LGED’s standard for all shortlisted subproject and including the cost estimate to address the Environmental, Social and Safety issues and cost of laying fiber optic cable**.
3.6 Prepare an appropriate TOR of Project Management Consultant for who will be responsible for project design, implementation and take care of capacity building and also prepare the DPP for next phase of the project;

3.7 Prepare DPP documents and assist Project Director with logical framework analysis.

4.0: Detailed scope of services

4.1 Feasibility Study of the shortlisted subproject:

The Consultant shall carry out the detailed feasibility assessments for shortlisted subproject in terms of technical, economic, social and environmental criteria. The study should be acceptable to both World Bank safeguard policies and Government of Bangladesh.

The Consultant's tasks shall include, but not be limited to, the following:

Preliminary Baseline: Assemble a preliminary baseline for each facility's site, including but not limited to the following:

- **Topography**: Collect or produce aerial photographs by drones or any other means and contour maps. Identify, map and characterize existing infrastructures. Carry out adequate engineering surveys necessary for the feasibility assessments.
- **Collect all the information about the site including GIS maps, Google maps, geological maps, remote sensing, land use maps and contour maps, available reports relevant to connectivity with land port as well as economic corridor connectivity.**
- **Geological Conditions**: Analyse the geological condition including seismicity and associated hazards of the proposed locations. Collect available geological, geomorphological, and geotechnical maps to correlate with sustainability of the infrastructure.
- **Climate Conditions**: Collect climate condition baselines such as rainfall, humidity, temperature and visibility and analyse these conditions and correlate to design of the proposed sub-projects.
- **Traffic Surveys**: Carry out traffic surveys in order to document existing traffic and develop traffic projections for generated and diverted traffic. LGED’s RSDMS could be used for cross-checking.
- **Infrastructure Survey**: Collect information on existing access and relevant infrastructure including roads, inland waterways, railways, and border infrastructure including their capacity, condition, maneuvering traffic pattern, adequacy of road safety furniture, existing pavement layers of the proposed sub-projects, condition of other infrastructure such as bridge, culverts, drains, footpaths, carriageways, protective works as per standard with axel load according to AASHTO or Road Note 31.
- **Organize a Seminar /Workshop**: The consultant needs to organize a national workshop in Dhaka and at each district with participation from stakeholders: including the representatives from project area to ensure that the local concerns are addressed by the project issues under WeCARE.

4.2 Growth Center, Rural Market or Urban Center Planning:

World Bank has already engaged one firm to conduct the identification of potential Growth Center, Rural Market or Urban Centers. Based on the recommendations, the consultant will prepare the preliminary Architectural and Engineering Design for each market with adequate infrastructures which shall include the following:

- Preparation of Economic analysis of the pre-identified Growth Center, Rural Market or Urban Centers. Integrate the sustainable growth strategies recommended in different study report that in compliance to LGED’s perspective;
• Undertake specific economic analysis for some market centers with exceptional and unique condition e.g. with specialty on any agricultural commodity or industrial facilities and provide information, interpretations that are prerequisite for planning decisions;

• A typical plan should be provided for a small, medium and big market with respect to available lands and lease value consideration. This preliminary and conceptual planning will include effective land-use, landscape, space for female traders, Green space development, dividers, footpaths, drainage plans, Solid waste management and provide preliminary plans for Ghats, ramps, decks, pontoons etc. within the scope of preliminary infrastructure planning;

• Arrange public consultation through large and focused group discussion including, when necessary, statutory consultation and submission processes;

• Provide planning for GCM and RM is such that it will be unique that provide all urban facilities keeping the rural essence. The Natural Beauty and Bio diversity should be hampered due to interventions provided by WeCARE. The “My Village My Town” theme should be replicated in his planning, design and management concept;

In case of primary Architectural and Engineering Design shall be required

1. All the preliminary design works must follow the requirement and standard code of practices acceptable to LGED and the World Bank and should be based on current proven and accepted GoB or international practices.

2. The Consultant shall furnish the important documents, preliminary design and drawing and other necessary information in the LGED’s acceptable format in soft copies.

3. LGED preserves threshold for estimate for Large, Medium and Small Growth Centers, Rural Markets and Urban Centers under different ongoing project. Consultant may use that template used in different project and prepare the cost estimate using LGED rate schedule of respective district to validate the estimate. In case of any exception, the consultant will prepare the estimate analyzing prevailing market rate acceptable to LGED standard. The specification document shall also contain details on method of measurement and payments as well as appropriate penalties for non-compliance.

4.3 Conduct detailed economic and financial analysis of shortlisted subprojects;

   Estimate investment/maintenance costs for the possible alternatives, benefits, and carry out comparative economic and financial analyses, sensitivity and risk analyses for design options/alternatives and under different investment scenarios, considering construction and key impact mitigation and resettlement costs, rehabilitation and maintenance life cycle costs.

   Major responsibilities will be the following but not limited to:

• Review the study report of recently approved similar projects in LGED

• Preparation of Economic analysis for each shortlisted subproject;

• Undertake economic analysis and provide specialist economic information, interpretation and advice to inform management and planning decisions.

• Research and integrate key local, national and international trends and issues into the planning process and provide economic, strategic planning and analytical support for the preparation of various strategies and forecasting upcoming growth, provide scope of forward and backward linkage with Local as well as Global Value Chain perspective in respect to economic corridor;

• Provide economic policy advice and specialist technical advice as required and provide reports and recommendations on a variety of complex issues.

• Manage public consultation processes through large and focused group discussion including, when necessary, statutory consultation and submission processes.
Develop, apply and maintain models and techniques for analysis;

The economic and financial analysis shall be required:

1. The method of analysis should both nationally and internationally accepted and in compliance to World Bank and Bangladesh policy.
2. The consultant will provide evidence, reference and authentication of baseline survey.
3. The consultant will provide both Hard and Soft copy of analysis and provide soft copy of analysis for interim, post or terminal evaluation.
4. Use updated software for model run and LGED and WB should be informed about the software. Use of any outdated software may cause impose of penalty or curtailment of payment.

4.4 Laying “Fiber Optic Cable duct” under “Dig only once policy” of World Bank.

Under this program, there are mandatory option to lay underground Optical Fiber Duct under “Dig only once policy” by World Bank. A stakeholder workshop has already been arranged jointly by LGED and World Bank. An Individual Consultant has already appointed by World Bank to prepare a business model. The consultant may adopt the recommendations of the workshop.

The consultant will provide the following but not limited to:

- Preparation of draft layout plan of the “Fiber Optic Cable” that will be laid under WeCARE program under “Dig only once policy” with help of appointed consultant.
- Recommend the layout the fiber optic cable and the manholes, hand holes to be provided for future connection as per stakeholder’s opinion;
- Recommend on training both at national and local level on business model and employment generation;
- Address the issue related to existing utility ducts provided by Grameen Phone, Robi and other Mobile Phone operator and incorporate in the cost estimate for compensation, replacement and rehabilitation of the ducts.
- Prepare a Power point presentation as required by World Bank as well as LGED Official;

In case of primary layout of fiber optic cable shall be required

1. The consultant will provide a primary layout of the fiber optic cable with different color in the maps and primary location of hubs with help of individual consultant
2. The Consultant shall furnish the important documents, design reports, drawing and other necessary information in the LGED’s acceptable format in soft copies.
3. The cost estimate will be based on LGED’s district rate schedule and also BTRC where applicable.
4. The draft proposal or business model should comply with Bangladesh Government ICT Law.

4.5 Prepare preliminary Cost Estimates for each Subproject:

- The Consultant will prepare a preliminary cost estimate for each shortlisted subproject identified for investment. The consultant will use the RSEPS (Road and Structure Estimate Preparation Software) for preliminary cost estimate preparation.
- LGED Design Unit and Road Maintenance and Road Safety (RMRSU) unit prepares a sample cost estimate for per KM of road and per meter of Bridge/Culvert both for new construction and rehabilitation every year. The Consultant will collect the detailed estimate from the respective unit to compare the accuracy of the estimate.
An ESIA consultant has been engaged for updating existing RTIP2 environmental and social safeguard policy framework. According to TOR, the ESIA Consultant has been tasked to prepare a template of cost estimate to address the Environmental, Social and Safety for infrastructural work. The consultant will contact with the ESIA Consultant and incorporate the tentative cost estimate in the subproject cost.

Recently, rate for the ESCP, LMP, GMP, SEP and to address GRM for GBV Management Plan (GMP) has been included in the LGED’s rate schedule as Lump sum. The consultant will collect the rates from LGED and engage his expertise to prepare cost estimate and correlate with estimate of the ESIA part.

Cost estimate of laying Fiber optic cable duct including replacement, rehabilitation or compensation.

All the preliminary cost estimate must follow the requirement and standard code of practices acceptable to LGED and the World Bank and should be based on current proven and accepted GoB or international practices.

1. The Consultant shall furnish the hard and softcopy of the preliminary cost estimate, drawing and other necessary information in the LGED’s acceptable format.
2. The Consultant shall prepare the cost estimate using LGED rate schedule of respective district. In case of any exception, the consultant will prepare the estimate analyzing prevailing market rate acceptable to LGED standard. The specification document shall also contain details on method of measurement and payments as well as appropriate penalties for non-compliance.
3. The consultant will contact ESIA Consultant, LGED Design and RMRS Unit and Fiber Optic Cable Consultant. The cost estimate provided by him will be a complete package subproject that will cover all components under the program theme.

4.6 Prepare an TOR of Project Management Consultant (PMC):

As WeCARE is multiphase program and will continue for 10 years, an appropriate Project Management Consultant is a mandatory to mainstreaming the theme and concept of the project within other projects under LGED. Primarily, the prime task of the PMC will be preparation of the TOR of DSM Consultant, timely procurement of consultant and smooth implementation of Works, Goods and Services. Moreover, he will incorporate individual consultant to upgrade different project monitoring, quality assurance and management and accounting software recently in vogue in LGED. He will assist Project Director to prepare DPP for the Phase II.

The PMC will be an international consultant with versatile expertise and proficiency.

4.7 Prepare DPP documents and assist Project Director with logical framework analysis

Under WeCARE, the prospective rural infrastructure will be identified on the basis of the connectivity with pre-identified potential market and business center connection with economic corridor. So, the theme and concept of WeCARE Program differs from the other project of LGED. So, the logical frame work and indicator for impact assessment will be different. Moreover, there are options to integrate to RHD and LGED through different aspect of capacity building and road safety issues. So, Consultant will provide sufficient effort to assist Project Director to prepare the Development Project Proposal (DPP).

5. Preliminary Design and Subproject Preparation for Investment

The detailed tasks and responsibilities under detailed survey and detailed engineering design include but not limited to the following:
Possible Steps to prepare preliminary design and subproject preparation. The consultant is free to adopt his own judgments and procedure for betterment of deliverables:

- Inception meeting at LGED HQ
- Contact the potential market identification consultant and collect the Upazila wise list of potential market
- Collect the Upazila Map
- Collect Shape files of the respective markets
- Meet District Executive Engineer, Upazila Engineer, Upazila Chairman, Upazila Nirbahi Officer, Union Chairman, Market Management Committee and conduct a stakeholder consultation meeting to ensure the potential identification of GCM, RM and UM.
- Visit the site and select the potential road alignment
- Select road that needed upgrading, rehabilitation and new construction
- Check the existing structural features such as existing pavement thickness, character of soil, Bridge Culvert needed for replacement or maintenance and regional hydrology, climate etc.
- The Traffic data will be available from RSDMS (Road and Structure Database Management Software). The consultant will make sample count to ensure the accuracy of the database.
- Now make economic analysis and prioritize the road for upgrading, rehabilitation and new construction
- Also identify for roads, important nodes with incomplete one and prioritize
- Identify the structural need in GCM, RM and UM. That to be conducted in the concerned market with large group discussion
- Select site for collection center in consultation with DAEO and Block Supervisor
- Contact ESIA Consultant and Fiber Optic Duct Consultant for cost estimate of the relevant component
- Prepare shortlist of the subproject for investment
- Prepare preliminary design
- Prepare preliminary cost estimate incorporating all component
- Consultant LGED Design and RMRS Unit for unit cost upgrading, rehabilitation and new construction of each component
- Collect cost estimate of recently approved development partner funded project e.g. RCIP, CREDIP, Countrywide Model Market Construction Project, RTIP, SupRB, KDRIDP, GJRIDP, BAIIDP and compare the accuracy of design and cost estimate.
- Prepare the draft design, cost estimate and subproject appraisal
- Conduct a stakeholder’s meeting at field office and get approval
- Organize a meeting at LGED HQ and demonstrate the finding
- Finalize the preliminary design and cost estimate

6. Duration of Services
Considering the different activities proposed herein and their logical sequence, a total of 5 month period is the duration of service

7. The Consultant’s Team and Inputs
The proposed services under this Terms of Reference shall be carried out by using a consulting firm (Consultant) with adequate experience in feasibility, detail design, and environmental and social assessment, and having experiences in similar infrastructures and management of rural road. The Consultant should have experience in the fields of rural transport planning and design, engineering survey and design works for similar infrastructures for traffic forecasting and planning, pavement design, slope protection works, drainage engineering, solid waste management, bioengineering, hydrology, material study, economic and financial evaluation, cost estimation and preparation of bid documents, resettlement, environmental and social safeguards/risk analysis and management, and stakeholder engagement.
8. **Staff Inputs**
To achieve the objectives of consultant services under this Terms of Reference and in accordance with the scope of works as stated, the requirement of following professional and staff with mentioned person months has been indicatively estimated by LGED:

<table>
<thead>
<tr>
<th>Position of the Key Professional</th>
<th>No. of Position</th>
<th>Total Person Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Rural Infrastructure Expert as Team Leader</td>
<td>01</td>
<td>5.00</td>
</tr>
<tr>
<td>Senior Economist</td>
<td>01</td>
<td>5.00</td>
</tr>
<tr>
<td>Rural Road Transportation Expert</td>
<td>01</td>
<td>5.00</td>
</tr>
<tr>
<td>Structural Engineer</td>
<td>01</td>
<td>5.00</td>
</tr>
<tr>
<td>Junior Engineer</td>
<td>01</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Required staffs and amenities should be procured by the consultant as per their requirement and should be incorporated while quoting of rates.

**Note:**

1. *List of key professionals and estimated person month is for reference only. The Consultant is responsible to review the required services and may propose own requirements for the key professionals and other support staff (eg: Surveyors with helpers, CAD operators, traffic enumerators, etc.) required to complete the proposed services in a satisfactory manner.*
2. *Financial proposal should include all the direct and indirect costs necessary to execute the services and reporting including organization of meetings with LGED Officials as well as stakeholder’s workshop in Dhaka, Jashore, Jhenaidah, Chuadanga and Magura.*
3. *The number of experts proposed for different positions shall match with the Consultant’s Technical Proposal.*

9. **Qualifications and Responsibilities of Key Personnel**

The broad qualifications of the Key personnel are given below. The responsibilities shall be assigned by the Consultant to complete all the deliverables in a professional manner.

### 9.1 **SENIOR RURAL INFRASTRUCTURE SPECIALIST (TEAM LEADER):**

**General Requirements and experience**

- A qualified civil engineer, with a bachelor’s degree in civil engineering and a relevant post-graduate qualification. At least 15 years of working experience in planning, design, construction rehabilitation and maintenance of rural infrastructures projects in Bangladesh like roads, bridges & culverts, markets & Ghats, different protective works as per standard and designing infrastructure against natural calamities due to climate change to ensure environmental sustainability with knowledge management capability specially Climate Resilient issues.

- He should be Foreign National.

- He should have at least 10 years’ experience working as a Team Leader in assisting large projects involving funds from different sources (preferably ADB, World Bank, JICA, KfW, IFAD or other similar financiers).

- He should have proven leadership and project management capability, personnel management and interpersonal skills, work skills in multi-disciplinary and multi-cultural team environments, excellent report preparation skills with computer literacy.
• He should have proven experience in Planning and Landscaping of rural markets with standard, road dividers maintaining safety issues and also experience in designing rural road to endure with the anticipated traffic load and other factors.

9.2 SENIOR ECONOMIST

General Requirements and Experience

• A qualified economist or civil engineer equivalent with at least 10 years of working experience in economic analysis and evaluation of rural infrastructures projects like roads, bridges & culverts, markets & Ghats, different protective works against natural calamities due to climate change to ensure environmental sustainability.

• Working experience with Donor aided project and Rural Infrastructure Development Project under ADB, World Bank, JICA, IFAD, KfW, SIDA or Other Development Partners will be treated as special preference.

• Capable of Cost Benefit and Socio economic analysis of each components e.g. for each alignment, major Bridge/ culverts, rural markets, Ghats in respect to Traffic Volume, Agricultural output, all tangible and intangible socio-economic factors e.g. employment generation, change livelihood pattern, quality of educational development and forecasting growth in compliance to SDG and 7th Five year Plan.

9.3 RURAL ROAD TRANSPORTATION EXPERT

General Requirements and Experience

• A qualified civil engineer, with a bachelor’s degree in civil engineering and a relevant post-graduate qualification. At least 10 years of working experience in transportation planning, design, construction, maintenance of rural infrastructures projects in Bangladesh like roads, bridges & culverts, markets & Ghats, different protective works against natural calamities due to climate change to ensure environmental sustainability with knowledge management capability.

• He should have at least 5 years’ experience for rural road transportation or similar projects involving funds from different sources (preferably ADB, World Bank, JICA, KfW, IFAD or other similar financiers).

• At least 5 years of experience as a Deputy Team Leader.

• He should have proven experience in transportation planning and management capability, personnel management and interpersonal skills, work skills in multi-disciplinary and multi-cultural team environments, excellent report preparation skills with computer literacy.

• Assist the Team Leader in reviewing and prepare all document needed for deliverables.

9.4 STRUCTURAL ENGINEER

General Requirements

• A qualified civil engineer, with a bachelor’s degree in civil engineering and a relevant post-graduate qualification. At least 10 years of working experience in planning, design, construction and maintenance of rural infrastructures projects in Bangladesh (like roads, bridges & culverts, markets & Ghats, different protective works against natural calamities due to climate change to ensure environmental sustainability) with
knowledge management capability specially Climate Resilient issues. He will be responsible to the Team Leader.

- He will have proven capacity to provide preliminary structural design of the identified infrastructure and technical guidance to all design to be carried out under the project.

- He should be competent in operating Design Software e.g. STAAD/SAFE/RISA/3D Environment etc. and other drafting software e.g. AutoCAD/REVIT/SAP etc. and have the proven knowledge in AASHTO and Road Note 31.

- Capable of preparing technical specifications of subprojects of Roads, Bridge/ culverts, rural markets, Ghats and other appurtenant infrastructure.

- Assist the Team Leader in reviewing and prepare all document needed for deliverables.

9.5 JUNIOR CIVIL ENGINEER

General Requirements

- A qualified civil engineer, with a bachelor’s degree in civil engineering and a post-graduate qualification is an advantage. At least 5 years of working experience in planning, design, construction and maintenance of rural infrastructures projects in Bangladesh (like roads, bridges & culverts, markets & Ghats, different protective works against natural calamities due to climate change to ensure environmental sustainability) with knowledge management capability specially Climate Resilient issues. He will be responsible to the TL.

- He will have proven capacity to provide planning and preliminary structural design of the rural infrastructure to be carried out under the project.

- He should be competent in operating Design Software e.g. STAAD/SAFE/RISA/3D Environment etc. and other drafting software e.g. AutoCAD/REVIT/SAP etc. etc. and have the proven knowledge in AASHTO and Road Note 31.

- Experience in preparing technical specifications of subprojects of Roads, Bridge/ culverts, rural markets, Ghats and other appurtenant infrastructure.

- Assist the Structural Engineer for preparing the design documents.

10. Implementation Schedule and Reporting Requirements

The total duration of contract is estimated to be 5 months for the proposed Feasibility Study and preliminary Design including tentative cost estimate of shortlisted subprojects. The Consultant is expected to achieve the following key activities and reporting’s for each activity as follows:

<table>
<thead>
<tr>
<th>Key Activities</th>
<th>Timing</th>
<th>Reporting</th>
<th>Delivery Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Signing</td>
<td>1 December 2019</td>
<td>Standard Format</td>
<td>3 Hard Copy with hard cover</td>
</tr>
<tr>
<td>Mobilization, collection of Maps, Contact with Market Identification Consultant, activities and preparation of</td>
<td>7 December 2019</td>
<td>Inception Report</td>
<td>5 hard / 1 soft copy</td>
</tr>
</tbody>
</table>
### Inception Report

- **Feasibility Study Shortlisted Subproject Selection for Jashore**: 15 December 2019
  - Monthly Progress Report
  - 5 hard/1 soft copy including a presentation at the Employer’s office

- **Feasibility Study Shortlisted Subproject Selection for Jhenaidah**: 25 December 2019
  - Monthly Progress Report
  - 5 hard/1 soft copy; including a presentation at the Employer’s office

- **Feasibility Study Shortlisted Subproject Selection for Meherpur**: 5 January, 2020
  - Monthly Progress Report
  - 5 hard/1 soft copy; including a presentation at the Employer’s office

- **Economic Analysis and EIRR**: 15 February 2020
  - Reporting with ppt
  - 5 Hard and 5 soft Copies with detailed ppt

- **Draft Preliminary Design with Tentative Cost Estimate of Selected Subprojects**: 1 March 2020
  - Progress reports
  - 2 hard and soft copy for each Upazila, 2 hard and soft copy for each district and 3 Hard and one soft copy for HQ.

- **Draft Presentation**: 25 March 2020
  - Draft Preliminary design
  - 5 hard/1 soft copy; including a presentation at the Employer’s office

- **Final Report**: 15 April 2020
  - Preliminary Design with Tentative Cost Estimate of Selected Subprojects
  - Separate volumes; 5 hard/1 soft copy for each Upazila, District and LGED HQ.
  - Final Presentation

- **Considering parallel activities to be executed in Jashore, Jhenaidah and Meherpur, the Consultant shall be required to mobilize more than one team to conduct the survey and design works.**

- **The consultant needs to organize a national workshop at Dhaka and another three in Jashore, Jhenaidah and Meherpur with participation from stakeholders including the representatives from project area.**

- **Presentation and Deliberation on the Reports at LGED: Within 2 working days of the submission of the report at each stage as shown in above table, the Consultant shall make presentation of the report to the LGED project team as well as other stakeholders of the Employer for discussion and deliberations. The Consultant shall submit the minutes of the meeting with proposed modifications in the report to the Project Coordinator within 24 hours for review and comments. The Employer shall provide their comments within 3 days of the submission of the minutes.**

### 11. Facilities and Equipment

#### 11.1 To be provided by the Consultant

During the study, the Consultant shall provide all the facilities for their staff and other logistical requirements on their own to fulfill their obligations. These will also include support staff and office facilities, office equipment and supplies, required equipment and materials for field data collection, vehicles, and communications as required for each district and Upazila level. The Consultant will set out the phase wise requirements in the technical proposal and provide the financial cost estimates for these in their financial proposal.
7.2 To be provided by the Government

The Government will provide the Consultant with all available studies and reports and data relevant to the services. LGED will provide software codes, passwords and information required for the study and will provide assistance where the Consultant, for the purpose of executing these services, needs to coordinate with other Government agencies, and non-government agencies. LGED will also participate in all stakeholder consultation events related to the Feasibility study and economic analysis, with the technical and logistical support of the consultant as required.

Annex 1 provides the physical and other available information for the proposed Western Economic Corridor and Regional Enhancement Program (WeCARE). The Consultant is advised to use this information as reference and are required to conduct due verification, as necessary.

Annex 2 contains a generic TOR, to be adapted and refined by the Consultant, for Planning concept for Upgrading and rehabilitating feeder road connectivity infrastructure. Similarly,

Annex 3 contains a sample logical framework, to be adapted and refined by the Consultant, for the detailed economic analysis including support to DPP preparation and relevant activities.

Annex 1: Physical and other available information for the proposed Western Economic Corridor and Regional Enhancement (WeCARE) Program.

The global economy has been predicted to double in size by 2050 with a precondition to growth-friendly strategies and their continual adaptation and promotion. Three of Bangladesh’s neighbors- the People’s Republic of China (PRC), India, and Indonesia- are expected to be major contributors to this growth. Along with its neighbors, Bangladesh is on the path to becoming one of the world’s three fastest-growing economies in the coming decades.1 Bangladesh, by virtue of its geographical location, is strategically placed to be a part of this larger Asian growth story. Not only in terms of its proximity to the large growth engines in Asia (the PRC and India), Bangladesh itself also boasts of a large and growing domestic market.
Bangladesh’s rapid economic expansion in the past 2 decades has received global attention. Bangladesh has set ambitious target of attaining an average annual growth rate of 10% through financial year (FY) 2021. Using this economic momentum, Bangladesh aspires to become a middle-income country by 2021 and a developed country by 2041.

Bangladesh has also been experiencing rapid urbanization during the last few decades. Between 1961 and 2011, the country’s total population increased from 55 million to about 150 (about 273%) while the urban population increased from 2.6 million to about 43.43 million, thus recording a growth of nearly 1600% (BBS). The Seventh Plan mentions that the sustained high rate of urban population growth implies that by 2015 about 30% of the country’s population will live in urban areas. Given the trend of urbanization, the Seventh Plan has concluded that Bangladesh, a small and predominantly rural country, is undergoing a transformation towards urbanization at a remarkable pace.

Its agony that this growth that lead enormous migration of people from rural to urban cities. Recent statistics reflects that rapid migration caused all sorts problem in urban area both in socioeconomic and health aspect. The socioeconomic analysis divulges that present status of rural infrastructure could not cater the required service that refrain the rural people migration. Specifically, The road connecting to national or regional highway or major arterial roads with rural road are not well furnished and spaced enough to justify the requirement. The Growth Centers and Rural Markets are deficient with modern infrastructure and have a very limited access to farm lands with village road connections and the space and appurtenances available at present need to be synchronized with need of rural stakeholders. The situation demand on linking the rural and hinterlands to a higher mode of economy and create a synergy in development through an economic corridor.

In the globalized environment of trade and investments, the development of economic corridors has gained critical importance. The development of economic corridors as the backbone of economic growth is anchored in transport corridors. The economic corridor approach pursues a holistic strategy that emphasizes the integration of infrastructure improvement with economic opportunities such as trade and investment, and it includes efforts to address the social inequality. The approach provides a strong economic foundation for the construction of infrastructure that, in turn, can support the growth of local enterprises and thus the investment and production will spill through neighboring countries. Quality transport infrastructure along with the provision of quality services and the development of human capital will ensure sustainable and inclusive growth. Economic corridor development involves linking rural business centers as strategic nodes along economic corridors.

This comprises the creation of an efficient multimodal transport network within a defined geography supported by quality rural infrastructure, particularly last-mile connectivity project, logistic facilities, a policy framework that facilitates doing business and setting up distribution networks that link growth centers, rural markets and international gateways. The integration of infrastructure with trade, investment and overall economic potential is expected to enhance the competitiveness of selected regions. This will contribute to developing a sound industrial base by attracting investments into manufacturing sectors, both for domestic and export markets. It has been identified that the Bangladesh’s Southwest economic corridor as one of the most important economic corridors across the country. The 260 kilometer corridor, which runs from Benapole, on the southwest border with India, connected to SASEC1 road at Hatikamrul. Another link from Navaron of Jashore district will connect Bhomra land port. Ultimately, the economic corridor will link to Bangladesh-China-India-Myanmar economic corridor, which will boost integration of Bangladesh economy with the dynamic global production networks of India, the People’s Republic of China and Myanmar. The opening up of Myanmar and the construction of a new bridge across the Padma River, among others, will further increase the economic potential of this economic corridor. More important the Government of Bangladesh (GOB) is interested in developing a Southern Delta Economic Corridor extending from Khulna to Dhaka across the Padma Bridge.

To exploit its potential and realize its aspirations by navigating the expected challenges in the global economy, effort needs to be put in to boost connectivity and trade links with neighboring India, the PRC, and members of the
Association of Southeast Asian Nations (ASEAN). Thus the Concept of Economic Corridor is a concern to find the solution of the problem.

In the context of the above situation analysis, the formulation of an investment program like the Western Economic Corridor and Regional connectivity Enhancement (WeCARE) Program is warranted.

Bangladesh’s Seventh Five-Year Plan envisions an integrated development strategy for the southwest region. The economic corridor development approach is well aligned with this vision in that it seeks to establish government and private special economic zones; introduction of information technology (IT) at the grass root level; and improvement of Rural Markets to integrate for large, medium, and small-sized enterprises with the business network. Given its strategic locational advantage, Bangladesh’s southwest region is a strong claimant to becoming a domestic and regional industrial, trade, and investment hub. Two major Land port “Benapole and Bhomra” are situated along this region and 70% of total export-import business being operated using this two ports. Moreover, another two river port “Mongla and Payra” also will encompassed by the corridor. To achieve the holistic development strategy that will drive structural transformation and improve welfare across Southwestern regions, one policy instrument that has proven to be effective in integrating industry, infrastructure, rural-urban services, and the related institutional and regulatory framework, is the development of the proposed economic corridors. Economic corridor development involves identification and improvement of Rural Markets, Growth Centers at suitable nodes, which in turn are connected to trade gateways and rural conglomerations by a multi-modal transport corridor while being governed by a robust institutional framework. These nodes may be the existing Growth Centers or Rural Markets of economic activity that have the potential to develop and spawn further development in their influence region. The supporting infrastructure involved is nodal infrastructure such as urban and industrial infrastructure to promote integrated urban and industrial development, trade gateways, and robust multi-modal trunk connectivity called the spine of the corridor to connect the nodes with one another and with the trade gateways. Suitable Growth Centers and Rural Markets where socioeconomic infrastructures will be strategically located, taking into account land availability, are then determined. It is then necessary that the All-inclusive Development Strategy also identify the right mix of priority industries for promotion and will drive the growth of the region to achieve its socioeconomic transformation.

To stimulate a sustainable growth through an economic corridor, LGED submitted a Preliminary Development Project Proposal (PDPP) to LGRD Ministry captioned as “East-West Corridor Link Road Up gradation project (EWCLRUP)”. LGRD Ministry sent the proposal to ERD on 20 August 2008 and on 6 December 2017, ERD requested World Bank to consider financing on the project. The World Bank team carried out an identification mission during 14-17 May, 2018 and submitted a draft Aide Memoire on 6 June 2018 with the proposal that the project could be a taken up under Regional IDA Financing. The Program identified potential the rural road including GCM and RM link to Bhanga- Bhatiapara- Kalna- Lohagara- Narail- Jessore Road, Navanran- Satkhira Road and other sub-regional Highway under an MPA approach. But the due to complicated Environmental Safeguard issue, the World Team opined that the Bhanga- Bhatiapara- Kalna- Lohagara- Narail- Jessore Road would not be the most optimal corridor for WB financing and they further agreed that Daulatdia- Magura- Jhenaidah- Jessore- Khulna road would be more strategic choice. Accordingly, the WB Team visited Jessore and Khulna from 11-13 October 2018 and conducted meeting Benapole and Bhomra Land port Authority, visited Khulna IWT Terminal and met Mongla River Port Authority. The Team also has a stakeholders meeting at Jessore with group of businessman, Flower Association, Chamber of Commerce, President of Export and import authority and Corridor viability Assessment Report published by the team on November 7, 2018 with a recommendation that Daulatdia- Magura- Jhenaidah- Jessore- Khulna road could not be a strategic choice as per recent traffic survey and study report. So, identification mission carried out again on November 12-19, 2018 and selected three Routes at Western Region namely (I) JASHORE- JHENAIDAH (II) NAVARON- SATKHIRA-BHOMRA AND (III) JHENAIDAH-KUSHTIA-PABNA- ISHWARDI- BONPARA- HATIKAMRUL has been selected as spine of the economic corridor. In the meantime, traffic and different stakeholder study conducted by World Bank has been revealed that these proposed route will act as the dream economic corridor provided all the rural hubs and hinterlands links are being develop and value chain of the
agricultural are being established. Keeping the theme in mind, Western Economic Corridor and Regional connectivity Enhancement (WeCARE) program has been proposed.

Annex 2 contains a generic TOR, to be adapted and refined by the Consultant, for Planning concept for Upgrading and rehabilitating feeder road connectivity infrastructure. Similarly,

Terms of Reference

Project Implementation Support Consultant (PISC) for Rural Connectivity Improvement Project

A. Background:

1. The Government of the People’s Republic of Bangladesh has applied for financing from the _________________ for improving priority Rural Road Network in Bangladesh. The Ministry of Local Government, Rural Development and Cooperatives (MLGRDC) acting through Local Government Engineering Department (LGED) of the Government of Bangladesh (the Client) has initiated Rural Connectivity Improvement Project which aims to improve about 2,683.269 kilometres (km) of rural roads by widening and strengthening the existing rural road infrastructure.

2. The project is proposed to be implemented by LGED through the project management unit (PMU) set up at the headquarter level. The PMU will be assisted by project implementation unit (PIU) which will be set up at division level. The contract administration of the civil works is proposed to be carried out by LGED district/upazila offices.

3. The project will cover five divisions of Bangladesh spanning almost the entire country except the north eastern part. The project will enhance people’s accessibility to the market thus creating opportunities for social and economic development apart from increased income. The project also proposes to enhance the access to basic services, such as for health and education of the rural population.

4. The five divisions covered are Dhaka, Chattogram, Khulna, Rajshahi and Rangpur. The roads to be improved under the project are located in 34 districts, and include improvements of upazila and union roads. These roads will be improved to paved and climate-resilient standards to provide all-weather road connectivity between agricultural production areas, growth center markets, and other parts of the country.

5. The project will have the following outcome: Transport efficiency on project roads increased. The key outputs include:

(i) Rural road conditions between the selected rural communities, productive agricultural areas, and socio-economic centers improved; and

(ii) Capacity of rural infrastructure agency and road users in project areas enhanced.
B. Objective of the Assignment:

**SCOPE OF SERVICE**

2.1 To achieve the objectives; the consultants will carry out the tasks in compliance with accepted professional standards, utilizing sound domestic/international engineering and economic practices. The Consultant will demonstrate his/her idea, methodology, procedure, methods and mode of work to LGED Officials through a workshop before commencement to get perception on his/her objective and deliverables. He/she will note all the discussions and make clear on his scopes, compliances and deliverables.

2.2 The Consultant service will include the following but not limited to:

The main objective of the consultancy services is to assist Local Government Engineering Department (LGED) with the implementation of the Western Economic Corridor and Regional Enhancement Program (WeCARE) project ensuring compliance with the policies / guidelines of the Government of Bangladesh (GOB) and the World Bank (WB). In this capacity the PMC is expected to assist LGED to perform the following management functions:

2.2.1 Project management including coordination, reporting, monitoring of progress and engage/hire consultants to prepare a unique Online Management, Monitoring, Accounting system software (OMMAS) as adopted under PMGSY in India. In house software ePMS already developed by LGED with the assistance of RTIP II. PMC will review the system to comply with the requirements of WeCARE as well as LGED;

2.2.2 Review the existing budgetary and financial management software in practice in different project within LGED. Unified Financial Management System (UFMS) software already developed by LGED should be triggered with WeCARE and updated regularly to harmonize all project features and requirements. He will engage number of support consultant and appropriate expert to prepare the software and will synergize all system in one and will take a leading role in mainstreaming the system with in LGED;

2.2.3 Review the quality management system in practice under different projects in LGED and prepare a Quality Control and Quality Assurance Plan which will ultimately lead to Online Total Quality Management (QC<QA<TQM). The Fieldwork Inspection Monitoring System (FIMS) developed LGED to be synchronized and updated under WeCARE;

2.2.4 Reviewing existing payment process in all government and project both in Revenue and Capital budget and develop online payment system including scroll generation, barcode formation in compliance to Government Financial rule, Public Procurement Rule and other related policies and archiving within the LGED database for future reference;

2.2.5 Advise on innovative technology like Use Waste Plastic in Bituminous road, Cell filled concrete, Nano Concrete Technology, use of Terrasil, Terraprime, ZycoTherm, Envotech, Nanotac etc. for Pavement treatment and other technology appropriate in the context of Bangladesh and mainstreaming;

2.2.6 Provide asset management guideline and assist LGED to mainstream asset management in all projects under LGED;

2.2.7 Provide support LGED Design Unit for designing Climate Resilient Infrastructure and addressing issues under INDC as committed to UNFCCC;
Review the case studies on previous disputes on contractual issues and provide Contractual advice and settlement of disputes, claims in compliance with PPA, PPR 8, World Bank and policies of other Developing Partners;

Prepare a sustainable business plan for effective use of “Fiber Optic Cable” that will be laid along the proposed alignment and will employ an expert team for merchandizing to all sector of user ultimately lead to IT based employment generation;

Review and Implementation of the Social and Environmental Safeguard Plans (environment, resettlement etc.) assed by consultant employed by World Bank as recommended by IFC criterion and assist LGED to integrate the relevant features in other LGED projects. The PMC will synchronize the finding with Environmental Management Information System (EMIS) Software developed by LGED update when needed.

Prepare a sustainable business plan for effective use of “Fiber Optic Cable” that will be laid along the proposed alignment and will employ an expert team for merchandizing to all sector of user ultimately lead to IT based employment generation;

Review and Implementation of the Social and Environmental Safeguard Plans (environment, resettlement etc.) assed by consultant employed by World Bank as recommended by IFC criterion and assist LGED to integrate the relevant features in other LGED projects. The PMC will synchronize the finding with Environmental Management Information System (EMIS) Software developed by LGED update when needed.

Review the ePMS i.e. Project Monitoring and Evaluation PM&E) Software developed by LGED and assess the project impact both in respect to physical and socio-economic aspect due to interventions provided through WeCARE and will mainstream throughout the LGED Projects;

Prepare Risk Management Framework and assist LGED to monitor and evaluate risk management plans prepared by D&S Consultant and the contractors and archiving within the LGED database for future reference;

Oversee the activities of the Design and Supervision consultants appointed for Phase I, II and III during implementation of the investment projects under WeCARE Program.

He will prepare a TOR for DSM Consultant with key and non-key staff which will aim to:

World Bank has already engaged Consultant to identify the potential Markets within the proposed region. So, the Prime Task of the PMC will be following but limited to:

A. Identification of potential LGED rural road network and other arterial roads linked to (i) NAVARON-SATKHIRA-BHOMRA, (ii) JASHORE-JHENAIDAH and (iii) JHENAIDAH-KUSHTIA-BONPARA-HATIKAMRUL which is tilted as “Western Economic Corridor and Regional Enhancement Program (WeCARE)” and synergizing connectivity and preparation of subproject appraisal; As it is a Multiphase Program, the PMC will reinforce only on JASHORE-JHENAIDAH portion conceded as Phase I road.

B. Integrate of Railway stations to the road network with the best possible connectivity;

C. Identify the new and possible linkage with proposed Economic Zone in consultation with BEZA or BEPZA;

D. Integrate Road with Riverine/Water route, Multimodal Transport in consultation with BIWTA;

E. Identified potential Growth centers, Markets and Ghats associated with road networks to reviewed and preparation of improvement proposal keeping the theme of present Government Manifesto “Amar Gram Amar Shahor” (My village is my town) concept;

F. Identification of collection hub or collection center at or near to alignments proposed for improvement. These hub or collection center will be used for collection of harvested agricultural product and will ensure an effective agricultural value chain;
G. Prepare effective plan considering Urban-Rural Linkage that will enhance the employment generation as well as stop the migration of the people towards the city area;

H. Identify the alignment of “Fiber Optic Cable” that will be engraved along the proposed alignment under WeCARE and help the consultant to prepare a business plan for effective use and ultimately lead to hub for IT based employment generation;

I. Identify of encroachments and oversee the approach adopted by consultant engaged by for preparation of ESCP, LMP, GMP, SEP and all other task according to their TOR as per 10 ESS Criterion and GRM for GBV Management Plan (GMP).

J. Identify Landscaping requirements as per guideline and recommend Engineering and Aesthetic concern

K. Identify the needs for Road Safety infrastructures and pertinent recommendations to be aligned with LGED Road Safety and BRTA Manual;

L. Oversee and Review the Environmental reports prepared by separate consultant in compliance 10 ESS under IFC and check the ESIA, RAP and RPF;

M. Prepare of Subproject Proposal for all activities with detailed survey preferably by Total station;

N. Prepare preliminary Cost Estimates as per LGED’s standard of the identified improvement activities.

The Task stated in 4.2.1 to 4.2.12 will be addressed during implementation phase by PMC.

Now, the PMC is only assigned for task from A to M as stated under art. 4.2.13

His major task is to assist LGED to prepare DPP so that the WeCARE Program get approve at ECNEC before June 2020 and PHASE I program could be kicked off from FY 2020.

Annex 3 contains a sample logical framework, to be adapted and refined by the Consultant, for the detailed economic analysis including support to DPP preparation and relevant activities.

Sample Log frame:

<table>
<thead>
<tr>
<th>12. Log frame</th>
<th>Narrative summary</th>
<th>Objectively variable Indicators (OVI)</th>
<th>Means of Verification (MOV)</th>
<th>Important Assumptions (IA)</th>
</tr>
</thead>
</table>
| **Project Goal** | Economic growth is enhanced due to improved accessibility and poverty is reduction in the project area. | - Poverty headcount ratio is reduced by XX%  
- Household income in real term is increased by XX%  
- Income gap between rural and urban areas is reduced to XX% | National statistics | |
| **Project Purpose** | Access to rural infrastructures and services is expanded for all kinds people including the poor and women. | Annual Average daily Traffic (AADT) is increased by XX%. 
Annual average travel time to access desired/preferred markets is reduced by XX%. 
Total sales of Growth centers supported by the project are | Baseline survey report  
Mid-term and terminal assessment reports | Private investment in agriculture, commerce etc. increased  
Social services provided well  
Quality of developed infrastructures |
### Outputs

<table>
<thead>
<tr>
<th>Rural Infrastructure development</th>
<th>Project completion report</th>
<th>maintained</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rural Infrastructure development</strong></td>
<td><strong>Project completion report</strong></td>
<td>maintained</td>
</tr>
<tr>
<td>1-1. Upazila Roads are improved</td>
<td>--km of UZRs are upgraded to bituminous surface standard.</td>
<td>- EIAs completed timely.</td>
</tr>
<tr>
<td>1-2. Union Roads are improved</td>
<td>--km of UNRs are upgraded to bituminous surface standard.</td>
<td>- Quality of developed infrastructures maintained</td>
</tr>
<tr>
<td>1-3. Road structures are constructed</td>
<td>--m bridges and culverts on UZRs and --m of bridges and culverts on UNRs are constructed.</td>
<td>- Management system for maintenance developed well</td>
</tr>
<tr>
<td>1-4. Growth centers and Rural markets are improved</td>
<td>- Growth centers are improved - WMS’s are constructed - Rural Markets are improved</td>
<td>- Sufficient fund for maintenance continuously allocated</td>
</tr>
<tr>
<td>1-5. Employment opportunities are created for rural poor through development and</td>
<td>--person-years of women’s employment are created in LCS road maintenance --person-years of women’s employment are created in</td>
<td>- Inflation within expected range</td>
</tr>
</tbody>
</table>

- Political situation remains stable
- No major natural calamities.
<table>
<thead>
<tr>
<th>Inputs</th>
<th>1-6. Road safety is ensured</th>
<th>Progress monitoring reports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>XX Upazila/Union CBRS terms are created</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XX CBRS facilitators are assigned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>XX persons participate in road safety education activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LCS tree planting and caretaking.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-7. Capacity of stakeholders are strengthened in planning, implementation, operation and management of rural infrastructure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>--trainee day training is imparted to stakeholders.</td>
<td></td>
</tr>
</tbody>
</table>

**Inputs**
- WB Contribution: 520 mill USD.
- GoB Contribution: .. Mil BDT.
- Adequate qualified professionals and staffs
- Necessary number of vehicles, construction and office equipments
- Training on road safety, overseas training for LGED officials and in-country training, workshops and meetings for LGED and relevant government officials, contractors and construction workers, GC& RM stakeholders, women shop keepers and LCS members.