PROJECT PREPARATORARY TECHNICAL ASSISTANCE

CONSULTING SERVICES THROUGH CITIES DEVELOPMENT INTIATIVE FOR ASIA (CDIA) FOR PRE-FEASIBILITY STUDIES AND PRELIMINARY ENGINEERING IN THE GAZIPUR AND KHULNA CITY CORPORATIONS, BANGLADESH

OUTLINE TERMS OF REFERENCE

A. Justification

1. There is an urgent need to support the Government in the development of urban infrastructure in Bangladesh and to identify appropriate projects and implementation options with them, including potential engagement with the private sector. In collaboration with the Government, CDIA has identified two priority cities to be covered under the ensuing project loan. A project preparatory technical assistance (PPTA) is required to review the available studies and designs, prepare additional studies and designs, prepare a sector assessment and master plan, roadmap, and develop a project suitable for Asian Development Bank (ADB) funding in terms of technical, financial, economic, environmental, institutional, sector policy, legal, social, poverty, gender and safeguard contexts, in conjunction with the country partnership strategy (CPS), operational experience, and lessons from evaluations of previous projects.

2. ADB South Asia Urban and Water is preparing the City Region Economic Corridor Development Investment Program (CRECDIP) that feeds into a $300 Multi-tranche Financing Facility (MFF) loan with the first tranche planned to be processed in the first quarter of 2018. The CRECDIP will enhance growth potential and improving investment environment of the target city regions through an integrated approach. It will start in 2016/17 to provide key urban infrastructure (urban road, drainage, water supply, sanitation and solid waste management), focusing on urban connectivity and local economic development along the Bangladesh-China-India-Myanmar (BCIM) international economic corridor. To strengthen local governance and capacity for sustainable service delivery is a major goal of the Country Operation Business Plan and the underlined investment program. Within this framework, CDIA will provide technical assistance (TA) to medium-sized cities with a high urbanization rate in crucial need to provide infrastructure. During a reconnaissance mission in September, CDIA together with ADB visited and assessed several cities that can qualify for its support. Cities in the Khulna Division indicate high potential to be selected - low infrastructure provision, little donor engagement, and a high urbanization rate. After a careful selection process including stakeholder engagement from the local, regional and national level, two cities have been identified: Gazipur City Corporation (GCC) and Khulna City Corporation (KCC).

3. The objective of the Pre-Feasibility Study is improving urban infrastructure and strengthening the city governments’ administrative capacity to prepare sustainable projects and package its investments for the purpose of the economic growth and the living environment enhancement in the targeted city corporations. The project will contribute to the Government’s target for infrastructure provision under the National Urban Sector Policy and align with proposed government targets for urban solid waste and water management.

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4. The CRECDIP will establish, improve and expand (i) a sustainable solid waste management system; (ii) the drainage and flood control facilities; (iii) sewerage and sanitation coverage; (iv) Urban connectivity (urban transportation) as part of the integrated urban development in particular in Gazipur; (vi) urban services to reduce poverty in vulnerable areas of the two city corporations which have been identified as being most in need to meet the demand of rapidly increasing urbanizations. In addition, the proposed TA will consider capacity development measures to assist the local government to improve the infrastructure utility performance, service provision, and tariff setting by replicating good practices of other ADB initiatives, including on-the-job training for staff, and to establish/improve solid waste and water management services with a financial sustainability. The study will provide opportunities for the local, regional and national governments to collaborate more closely and pilot initiatives, such as sanitation tariffs being included in the water billing. The project interventions will build on lessons from previous ADB projects like the City Region Development Project (CRDP) and the Urban Governance and Infrastructure Investment Program (UGIIP) 1-3. The CRECDIP will finally pave the way for further investment to improve services in the city areas along the corridor.

B. Major Outputs and Activities

5. The TA will be structured into two activities (i) Sector assessment, sector roadmap(s) and investment program for the next ten to twenty years in the selected cities and (ii) technical pre-feasibility studies, cost estimates, and preliminary engineering designs for priority projects will be prepared by the Cities Development Initiative for Asia (CDIA)3. The CDIA Consultants will maintain close coordination and collaboration with the PPTA and Project Design Advance (PDA) Consultants to ensure that financial and economic analyses are consistent with the project components and the outputs of the safeguards assessments are included in the proposed design of each component.

6. The CDIA activities include (i) conduct rapid sector assessments of long and medium term development plans for the above mentioned sectors of the Gazipur and Khulna city corporations; (ii) prepare a 10 to 20 years roadmap for increasing solid waste, drainage, and sewerage coverage; (iii) provide an investment plan; (iv) undertake technical pre-feasibility studies and assist the government to evaluate and prioritize components; (v) prepare cost estimates; (vi) prepare preliminary engineering designs for priority subprojects, (vii) assess the social and environmental feasibility and suggest design features to ensure the project will lead to urban poverty reduction and sustainability; (viii) prepare a procurement capacity assessment for the executing and implementing agencies; and (ix) detailed implementation and procurement arrangements. The focus sectors of the PFS assessment are:

   I. Solid waste management (collection, treatment, and storage)
   II. Drainage and flood control management
   III. Sanitation, sewerage and septage management

3 CDIA is a regional initiative established in 2007 by the Asian Development Bank and the Government of Germany, with additional funding support from the governments of Austria, Sweden, Switzerland and the Shanghai Municipal Government. The Initiative provides assistance to medium-sized Asian cities to bridge the gap between their development plans and the implementation of their infrastructure investments. CDIA uses a demand driven approach to support the identification and development of urban investment projects in the framework of existing city development plans that emphasize environmental sustainability, pro-poor development, good governance, and climate change mitigation/adaptation. To facilitate these initiatives at city level, CDIA provides a range of international and domestic expertise to cities that can include support for the preparation of pre-feasibility studies for high priority infrastructure investment projects as one of several elements.
7. The PPTA activities will work from and complement the CDIA activities and will prepare (i) financial and economic viability and sustainability, including assessment of the project’s cost recovery objectives, tariff setting mechanisms, affordability, financial management assessment, and financial analysis of entities; (ii) environmental and social soundness (including safeguards due diligence; documentation and consultations with affected households and other stakeholders; and preparation of other safeguards plans as required, based on social impact analysis); (iii) assessments of the capacity of the local government to implement monitor safeguards; and (iv) prepare a program for institutional development and capacity building.

8. The major outputs and activities of the CDIA and PPTA consultants combined are summarized in Table 1.

<table>
<thead>
<tr>
<th>Table 1: Summary of Major Outputs and Activities</th>
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<tbody>
<tr>
<td><strong>Major Activities</strong> (CDIA tasks shown in italics to show links to the TA)</td>
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<tr>
<td>0. Mobilization of consultants</td>
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<tr>
<td>1. CDIA Preparatory Activities, Data collection and review</td>
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<tr>
<td>1.1 Establish methodology and context (city and sector)</td>
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<td>1.2 Refine project rationale and objective</td>
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<td>1.3 Set-up a project steering committee and working groups</td>
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<td>1.4 Initial fact-finding through interviews and study visits</td>
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<td>1.5 Review existing data, feasibility studies, and identify data gaps</td>
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<td>1.6 Develop work program for sectors and cross-cutting issues</td>
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<td>1.7 Assess the capacity development needs</td>
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<td>2. CDIA Sector Assessment</td>
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<td>2.2 Conduct Assessments for the sector on the financial, economic, environmental, social and institutional project aspects</td>
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<td>2.3 Conduct Surveys and consult stakeholders</td>
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<td>2.4 Identify linkages to other sectors and synergies</td>
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<td>2.5 Identify, design and prioritize sub-project concepts in a participatory way and draft recommendations</td>
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<td>2.6 Conduct appropriate training for city officials</td>
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<tr>
<td>3. ADB PPTA Preparatory Activities</td>
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<tr>
<td>3.2 Establish TA methodology for project preparation</td>
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<td>3.3 Develop work program</td>
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<td>4. CDIA Roadmap, PFS Assessment, Investment packaging:</td>
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<tr>
<td>4.1 Conduct presentations and final discussions with stakeholders</td>
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<td>4.2 Prepare a capacity development plan</td>
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<td>4.3 Prepare and finalize investment plan package proposals</td>
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<td>4.4 Finalize the financial and economic, environmental, social and governance analysis, provide a roadmap and give recommendation for its implementation</td>
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<td>4.5 Prepare preliminary engineering designs for priority subprojects</td>
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<td>4.6 Prepare cost estimates</td>
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<tr>
<td>5. ADB PPTA Project Preparation and Due Diligence</td>
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<tr>
<td>5.1 Conduct stakeholder consultations</td>
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<td>5.2 Assess capacity of government to implement safeguards</td>
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5.3 Conduct financial management assessment
5.4 Assess economic and financial viability, sustainabilty, and affordability
5.5 Assess social, poverty, and gender impacts and prepare SPRSS, GAP, SCS and PP
5.6 Assess environmental and social impacts; prepare safeguards frameworks; prepare IEEs, RPs, and IPPs, as required
5.7 Develop detailed implementation arrangements
5.8 Institutional Strengthening and Capacity Development
5.9 Identify key stakeholders and assess institutional capacity constraints
5.10 Develop institutional capacity building plan
5.11 Prepare RRP, PAM, procurement plan, and financing plan

IEE = initial environmental examination; IPP = indigenous people plan; PAM = project administration manual; RP = resettlement plan; RRP = Report and Recommendation of the President, TA = technical assistance.

C. Consulting Services

9. All consultants will be engaged through a firm. The TA will require 5 positions and 17 person-months of international consulting services and 13 positions and 53 person-months of national consulting services. ADB/CDIA will select and engage consultants according to ADB’s Guidelines on Use of Consultants (2013), as amended from time to time) and other arrangements satisfactory to ADB for the selection and engagement of consultants. The quality and cost-based selection method, using the quality cost ratio of 90:10 will be followed, since a high degree of technical quality is required. Short-technical proposals will be required. Table 2 summarizes the consulting services required.

Table 2: Summary of Consulting Services Requirement

<table>
<thead>
<tr>
<th>International Name of Positions</th>
<th>Person-months</th>
<th>National Name of Positions</th>
<th>Person-months</th>
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<tbody>
<tr>
<td>Gazipur and Khulna (17 p-months)</td>
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<td>Gazipur and Khulna (53 p-months)</td>
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<tr>
<td>1) Team Leader (TL): Urban Planner</td>
<td>5</td>
<td>1) Deputy Team Leader (DTL) Gazipur: Municipal Engineer</td>
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<tr>
<td>2) Solid Waste Management Specialist</td>
<td>3</td>
<td>2) Deputy Team Leader (DTL) Khulna: Municipal Engineer</td>
<td>5</td>
</tr>
<tr>
<td>3) Drainage &amp; Flood Control Specialist</td>
<td>3</td>
<td>3) Solid Waste Management Specialist</td>
<td>5</td>
</tr>
<tr>
<td>4) Sewerage Network Specialist</td>
<td>3</td>
<td>4) Drainage and Flood control specialist</td>
<td>4</td>
</tr>
<tr>
<td>5) Financial &amp; Economics Specialist</td>
<td>3</td>
<td>5) Sanitation and Sewerage Specialist</td>
<td>4</td>
</tr>
<tr>
<td>6) Transport Planner</td>
<td></td>
<td>6) Transport Planner</td>
<td>3</td>
</tr>
<tr>
<td>7) Financial Specialist and Economist</td>
<td></td>
<td>7) Financial Specialist and Economist</td>
<td>4</td>
</tr>
<tr>
<td>8) Social Develop. &amp; Gender Specialist</td>
<td></td>
<td>8) Social Develop. &amp; Gender Specialist</td>
<td>5</td>
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<tr>
<td>9) Resettlement Specialist</td>
<td></td>
<td>9) Resettlement Specialist</td>
<td>3</td>
</tr>
<tr>
<td>10) Environmental &amp; Climate Specialist</td>
<td></td>
<td>10) Environmental &amp; Climate Specialist</td>
<td>4</td>
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<tr>
<td>12) Draughtsman/CAD/GIS specialist</td>
<td></td>
<td>12) Draughtsman/CAD/GIS specialist</td>
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<tr>
<td>13) Draughtsman/CAD/GIS specialist</td>
<td></td>
<td>13) Draughtsman/CAD/GIS specialist</td>
<td>3</td>
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</table>

Source: Asian Development Bank

10. The consultants will conduct a pre-feasibility study (PFS) of the above mentioned sectors for the two city corporations (Gazipur and Khulna), as agreed with ADB and the Local Government Engineering Department (LGED). The outline terms of reference for the consultants are described in paras. 11 – 21 below.
11. The **Team Leader (TL)** will (i) provide overall organization and management of the Team and for data collection and analysis, sector assessment, pre-feasibility studies, preliminary engineering design, and sample bidding/procurement documents; (ii) guide, supervise, and coordinate the work of all team members; and (iii) take overall responsibility for preparing reports and consolidating reports prepared by all team members. The Deputy Team Leaders (DTLs) will assist the TL to accomplish all tasks, coordinate the national team members and be liaison focal points with city corporations. The TL will need to integrate the key planning, sector investments, guide investment preparation and facilitate the identification of priority projects for each of the cities. This will be done within the overall strategic urban frameworks and plans, which exist at the national, provincial and city level. He/she will be responsible for guiding the consultant team to develop investment packages for short, medium, and long-term interventions.

**Qualifications and experience:**

*International*

- A minimum of a Bachelors degree in urban planning with a post-graduate or Master's degree specializing in urban and regional development.
- A minimum of 15 years experience in preparing integrated city and regional development strategies and plans where the focus is on growth, investments and urban regeneration.
- A minimum of 10 years experience of working in Asia, especially in South Asia. Previous experience in Bangladesh is preferred though this is not essential.
- Previous experience of leading and supervising multi-sector international and national consulting teams to prepare investment projects in pre-feasibility or PPTA for international agencies such as the ADB is essential.
- The team leader will have excellent English language speaking, writing and presentation skills

12. The **Municipal Engineers/DTLs** based in each city will take an active role in supporting the development and integration of urban planning frameworks, strategies and action plans focussing with special focus on economic corridor and transport sector development, though not exclusively. They will work jointly with the team leader and international specialists ensuring that sector strategies and plans reflect priorities, the work is grounded in the needs and priorities of each city they will recommend innovative technologies, where appropriate, to improve performance, reduce waste amount through improved recycling and waste-to-energy, and provide cost-effective operation and maintenance. The DTLs will take the lead of coordinating and managing their city consultant team, respond to the TL, guide on report contributions and consolidate the respective city report. A roadmap for short, medium, and long-term interventions for municipal infrastructure, in particular waste and water management, is required.

**Qualifications and Experience:**

*National:*

- Minimum of a Bachelor's degree in municipal or civil engineering or a combination of a first degree, post-graduate/professional training and extensive relevant experience in solid waste management, drainage and flood control, and sewerage and septage management.
- Minimum of 10 years in practice as an urban planner and municipal engineer in Bangladesh and this should be in government agencies and on donor funded projects. Experience of working with ADB in a similar role will be an advantage.
- Have a minimum of 10 years experience in preparing urban development strategies, and sector investments and projects for cities and towns in Bangladesh.
• Previous experience of being TL/DTL in donor projects is essential.
• Be fluent in written and spoken English with excellent report writing and presentation skills.
• Have the ability to work productively in a consulting team, with counterparts and wider project stakeholders.
• Have in-depth knowledge of international good practice in waste and water management and critically how they address development goals of environmental sustainability, climate change adaptation/mitigation, urban poverty reduction, good urban governance and gender.
• The DTL for Gazipur should also have experience in transport planning.

13. The two Solid Waste Management Specialists will take an active role in supporting the development of the waste collection, treatment and storage subproject solutions, and preparation of the pre-feasibility studies and preliminary engineering designs. Jointly the international and national specialist will recommend ways to improve performance, reduce waste amount through improved recycling and waste-to-energy, and provide cost-effective operation and maintenance. A roadmap for short, medium, and long-term interventions for solid waste management is required.

Qualifications and experience:

*International*
• Minimum of a Bachelors degree in civil/environmental engineering or similar, or a combination of a first degree, post-graduate/professional training and extensive relevant experience.
• Have a minimum of 15 years in SWM related project experience working in Asia with government agencies and on donor-funded projects preferably including experience gained in South Asia. Experience of Bangladesh is an advantage.
• Have a minimum of 10 years experience in the development of technical design and management interventions in urban infrastructure projects and investments.
• Experience of institutional strengthening and capacity development in SWM service provision is essential.
• Excellent English language skills especially report writing and presentations are required.
• Have the ability to work productively in a consulting team, with counterparts and wider project stakeholders.
• Have in-depth knowledge of international good practice in SWM and critically how they address development goals of environmental sustainability, climate change adaptation/mitigation, urban poverty reduction, good urban governance and gender.

*National expert (s):*
• Minimum of a Bachelor's degree in civil/environmental engineering or similar, or a combination of a first degree, post-graduate/professional training and extensive relevant experience.
• Have a minimum of 10 years in SWM related project experience working in Bangladesh with government agencies and on donor-funded projects.
• Have a minimum of 5 years experience in preparing SWM strategies, plans, investments and supporting sector development through integrated approaches.
• A high standard of English language skills in speaking, writing and presenting is expected of the expert.
• Have the ability to work productively in a consulting team, with counterparts and wider project stakeholders.
• Have in-depth knowledge of international good practice in SWM and critically how they address development goals of environmental sustainability, climate change adaptation/mitigation, urban poverty reduction, good urban governance and gender.

14. The **Drainage and Flood Management Specialists** will be responsible for the drainage sector assessment, develop subproject solutions, prepare pre-feasibility studies, and prepare preliminary engineering designs for the drainage canals, river embankment and flood control subprojects. Utilizing his/her experience, the international water management expert will recommend technical solutions and innovative technologies, where appropriate, to improve performance, and reduce disaster risks for residents and pollution of local watercourses. A roadmap for short, medium, and long-term interventions for drainage management and flood control is required.

Qualifications and experience:

**International**

- Minimum of a Bachelors degree along with a Masters degree is preferred in engineering (civil, water resources, drainage) or similar, or a combination of a first degree, post-graduate/professional training and extensive relevant experience.
- Have a minimum of 15 years drainage and flood management related project experience working in Asia with government agencies and on donor funded projects preferably including experience gained in Bangladesh, though not essential.
- Have a minimum of 10 years experience in preparing drainage/flood management infrastructure investment projects, programmes and short, medium and long term plans
- Experience of institutional strengthening and capacity development in municipal infrastructure service provision will be considered advantageous.
- Be fluent in written and spoken English with excellent report writing and presentation skills.
- Have the ability to work productively in a consulting team, with counterparts and wider project stakeholders.
- Have in-depth knowledge of international good practice in drainage and critically how they address development goals of environmental sustainability, climate change adaptation/mitigation, urban poverty reduction, good urban governance and gender.

**National expert(s)**

- Minimum of a Bachelors/post graduate in engineering (civil, water resources, environment) or similar, or a combination of a first degree, post-graduate/professional training and extensive relevant experience.
- Have a minimum of 10 years drainage and flood management related project experience working in Bangladesh on international development projects, especially in municipal context
- Have a minimum of 5 years experience in the development of technical design and management interventions in urban infrastructure projects and investments.
- Experience of institutional strengthening and capacity development in municipal infrastructure service provision will be considered advantageous.
- Be fluent in written and spoken English with excellent report writing and presentation skills.
- Have the ability to work productively in a consulting team, with counterparts and wider project stakeholders.
- Have in-depth knowledge of international good practice in drainage and critically how they address development goals of environmental sustainability, climate change adaptation/mitigation, urban poverty reduction, good urban governance and gender.
15. The two Sanitation and Sewerage Network Specialists will be responsible for the wastewater and sanitation assessment, develop subproject solutions, prepare pre-feasibility studies, and prepare preliminary engineering designs for the subprojects. Consideration of appropriate solutions using septage management, sewerage, and decentralized sewerage or a combination of these is required. The international water management expert will utilize his/her experience to recommend technical solutions and innovative technologies, where appropriate, to improve performance, reduce energy consumption and carbon footprints, and provide cost-effective operation and maintenance, and reflect local capabilities and conditions. A roadmap for short, medium, and long-term interventions for water supply and sanitation development is required.

Qualifications and experience:

International
- Minimum of a Bachelors degree along with a Masters degree is preferred in engineering (civil, water resources, sanitation) or similar, or a combination of a first degree, post-graduate/professional training and extensive relevant experience.
- Have a minimum of 15 years sewerage, septage and fecal sludge management related project experience working in Asia with government agencies and on donor funded projects preferably including experience gained in Bangladesh, though not essential.
- Have a minimum of 10 years experience in preparing sewer network and waste water treatment infrastructure investment projects, and short, medium and long term plans.
- Experience of institutional strengthening and capacity development in municipal infrastructure service provision will be considered advantageous.
- Be fluent in written and spoken English with excellent report writing and presentation skills.
- Have the ability to work productively in a consulting team, with counterparts and wider project stakeholders.
- Have in-depth knowledge of international good practice in wastewater management and critically how they address development goals of environmental sustainability, climate change adaptation/mitigation, urban poverty reduction, good urban governance and gender.

National expert
- Minimum of a Bachelors/post graduate in engineering (civil, water resources, environment) or similar, or a combination of a first degree, post-graduate/professional training and extensive relevant experience.
- Have a minimum of 10 years sewerage and fecal sludge management related project experience working in Bangladesh on international development projects, especially in a municipal context.
- Have a minimum of 5 years experience in the development of technical design and management interventions in urban infrastructure projects and investments.
- Experience of institutional strengthening and capacity development in municipal infrastructure service provision will be considered advantageous.
- Be fluent in written and spoken English with excellent report writing and presentation skills.
- Have the ability to work productively in a consulting team, with counterparts and wider project stakeholders.
- Have in-depth knowledge of international good practice in wastewater management and critically how they address development goals of environmental sustainability, climate change adaptation/mitigation, urban poverty reduction, good urban governance and gender.
16. The two **Financial and Economic Specialists** will take an active role in preparing the financial and economic analysis (FIIR/EIIR) of the project solutions, the pre-feasibility studies and marketing designs. The international specialist will utilize his/her experience to recommend appropriate financing options, innovative solutions, prioritize based on sustainability and cost-benefit effectiveness, and design a rapid marketing concept. The specialists will consider co-financing options, private sector involvement, tariff options, and provide recommendations to the city corporations to improve their public expenditure management/fiscal management and increase local revenues. The consultants will assist the engineers develop the investment packages for short, medium, and long-term investments.

**Qualifications and experience:**

**International**

- A minimum Bachelors degree along with a Master's degree in economics, finance or MBA
- A minimum of 15 years of experience in project finance/economics or project analyst
- A minimum of 10 years experience of carrying out public expenditure management (PEM) assessments of municipal agencies/financial and economic analyses, preparing financial investment plans for municipal urban infrastructure projects for government and donor agencies. ADB experience will be considered an advantage.
- Experience of working in Asia will be essential and South Asia preferred. Previous work experience in Bangladesh will be an advantage.
- Experience is required of working in multi-disciplinary teams and with diverse government stakeholders
- Excellent communication skills are required and especially the ability and confidence to present work at high strategic government and donor levels
- Ability to speak and write in an excellent standard of English is essential

**National expert**

- A Bachelors/Master’s degree in economics, finance or an MBA
- A minimum of 10 years of experience in municipal finance/project finance/economics or project analyst
- A minimum of 5 years experience of carrying out public expenditure management (PEM) assessments of municipal agencies/financial and economic analyses, preparing financial investment plans for municipal urban infrastructure projects for government and donor agencies. ADB experience is essential.
- Experience of working with urban infrastructure development projects is considered essential
- Experience of working in multi-disciplinary teams and with diverse government stakeholders
- Excellent communication skills are required and especially the ability and confidence to present work at high strategic government and donor levels
- Ability to speak and write in a high standard of English is essential

17. The **Transport Planner** will be responsible for the transport assessment, develop subproject solutions, prepare pre-feasibility studies, and prepare preliminary engineering designs for the subprojects. Consideration of appropriate solutions for the connectivity of roads inside and around the urban area is required. The expert will utilize his/her experience to recommend technical solutions and innovative technologies, where appropriate, to improve performance, reduce carbon emission, and provide cost-effective operation and maintenance, and reflect local capabilities and conditions. A roadmap for short, medium, and long-term interventions for road development is required.
Qualifications and experience (national):

- Minimum of a Bachelors/post graduate in transport/urban planning or similar, or a combination of a first degree, post-graduate/professional training and extensive relevant experience.
- Have a minimum of 10 years transport planning and road construction related project experience working in Bangladesh on international development projects, especially in a municipal context.
- Have a minimum of 5 years experience in the development of technical design and management interventions in urban infrastructure projects and investments.
- Experience of institutional strengthening and capacity development in municipal infrastructure service provision will be considered advantageous.
- Be fluent in written and spoken English with excellent report writing and presentation skills.
- Have the ability to work productively in a consulting team, with counterparts and wider project stakeholders.
- Have in-depth knowledge of international good practice in transport management and critically how they address development goals of environmental sustainability, climate change adaptation/mitigation, urban poverty reduction, good urban governance and gender.

18. The Social Development and Gender Specialist and Resettlement Specialist will be responsible to assess the social and poverty impacts of the proposed interventions, develop a social safeguard management plan, and propose design features to ensure that poverty, social and gender aspects will be considered in the subproject solutions. They will conduct socio-economic surveys if needed, support a participatory involvement of different project stakeholders including affected households, carry out public consultations and workshops, and give recommendations towards inclusive urban infrastructure development to the other consultants. The resettlement expert will utilize his/her expertise to assess relocation concerns and prepare solutions for a resettlement plan of the relevant subprojects.

Qualifications and experience:
National experts

- A minimum Bachelors degree and a Master’s degree is preferred in social development, anthropology or gender development or related relevant experience
- Have a minimum of 10 years of experience in carrying out social policy, poverty impact and safeguard assessments through participatory development approaches
- Have a minimum of 5 years experience of working at municipal and project level with urban poor, advising on pro-poor urban development investments, especially around resettlement issues in Bangladesh for donor projects and programs.
- Have a high standard of English language, report writing and presentation skills.
- Have the ability to work productively in a multi-disciplinary team, with government counterparts and wider project stakeholders.
- Ability to work and deliver outputs under pressure is expected.

19. The Environmental and Climate Change Specialist will be responsible to assess the environmental impacts of the proposed interventions, exposure and vulnerability to climate change aspects, develop an environmental safeguard management plan, and propose design features to ensure that climate change resilience aspects will be considered in the subproject solutions. He/she will conduct surveys and do field assessments if needed, and give recommendations to minimize the use of natural resources and reduce the carbon footprint of the subprojects. He/she will support a participatory involvement of different project stakeholders.
including affected households, and give recommendations towards a green and inclusive urban infrastructure development to the other consultants.

Qualifications and experience:

National expert

- A minimum of a Bachelors degree or a Master’s degree is preferred in Environmental Engineering, Management or Sustainability.
- Have a minimum of 10 years of experience in implementing environmental and climate change policy, and carrying out impact and safeguard assessments through participatory development approaches
- Have a minimum of 5 years experience of working for national governments, international donor agencies in Bangladesh on environmental management, safeguards, compensation measures, climate change mitigation and adaptation.
- Have a high standard of English language, report writing and presentation skills.
- Have the ability to work productively in a multi-disciplinary consulting team, with government counterparts and wider project stakeholders.
- Ability to work and deliver outputs under pressure is expected.

20. The Institutional and Capacity Development Specialist will be responsible to assess the current institutional and organizational situation in the respective city and for the relevant sectors, and develop and propose institutional (re-)arrangements and capacity development measures for city officials. Firstly, The specialist will analyze the institutional framework (legal, regulatory, political accountability, working with external partners) for local governments, highlighting where gaps exist in service provision and delivery. Secondly, the specialist will analyze specific organizational elements within local government, which affect performance (HRM, Finance, Management Systems, Planning Processes and Decision Making and explore options for reform). They will support the consultant team in designing a continuous interaction with the involved city stakeholders, but also the working group and steering committee.

Qualifications and experience:

National expert

- A minimum of Bachelors with a Master’s degree is preferred in urban management, public sector management or MBA or related relevant experience.
- Have a minimum of 10 years of experience in public sector management, organizational reform, municipal governance and reform in Bangladesh.
- Have a minimum of 5 years experience of advising municipal governments/agencies on change management/reforms and improved urban service provision and delivery. Experience of working with ADB previously will be considered an advantage.
- Experience of designing and delivery of institutional strengthening and capacity development programs for municipalities, state/provincial governments and donor initiatives.
- Have excellent English language, report writing and presentation skills.
- Have the ability to work productively in a multi-disciplinary consulting team, with government counterparts and wider project stakeholders

21. The two CAD/GIS technicians will report to the sector engineers and assist in preparing all necessary drawings, formats, electronic files and documents, and scope based on discussions with the sector engineers and – if needed – the social development specialists for their surveys.
22. Close coordination with the PPTA consultants engaged on the various due diligence work will be essential and timing of deliverables for use by the PPTA consultants will be agreed between the two parties to ensure the efficient use of each consultants’ inputs. Responsibility for this coordination will be for the two Team Leaders.

D. Implementation Arrangements

23. LGED will be the executing agency (EA), while Gazipur and Khulna City Corporations will be the implementing agencies (IAs). The international consultants will be based in either Gazipur or Khulna project office of the IAs, and the national consultants in the respective IA office. The Government will provide qualified counterpart staff, office administrative support services and logistics, transport possibilities and necessary data and reports. The EA and ADB will be responsible for supervision of the quality of the TA work.

24. Disbursements under the TA will be done in accordance with the ADB’s Technical Assistance Disbursement Handbook (May 2010, amended from time to time). The consultants may procure equipment through shopping according to ADB’s Procurement Guidelines. The equipment procured will be transferred to the project management unit upon completion of the TA.

25. The proposed schedule is listed in Table 3.

<table>
<thead>
<tr>
<th>Table 3: Proposed Implementation Schedule</th>
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<tbody>
<tr>
<td><strong>Major Milestones</strong></td>
</tr>
<tr>
<td>Commencement</td>
</tr>
<tr>
<td>Inception report including rapid assessments</td>
</tr>
<tr>
<td>Interim report</td>
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<tr>
<td>Draft final report</td>
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<tr>
<td>Final Report</td>
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