Developing technical pre-feasibility for a viable Mass Transport System for Siliguri under the Capacity Building Project on Low Carbon and Climate Resilient City Development in India (CapaCITIES)

## Terms of Reference

<table>
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<th>Title</th>
<th>Developing technical pre-feasibility for a viable Mass Transport System for Siliguri under the Capacity Building Project on Low Carbon and Climate Resilient City Development in India (CapaCITIES)</th>
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<tr>
<td>Location</td>
<td>Siliguri Jalpaiguri Planning Area (SJPA)</td>
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</table>
| Time Period (5 Months) | TOR published on ICLEI South Asia website – 11\(^{th}\) October 2017  
Last date of acceptance of proposals: 17\(^{th}\) October 2017  
Identification of winning proposal and selection of consultant :30\(^{th}\) October 2017  
Initial information, data collection, review of existing plans, and analysis – November 2017  
Spatial analysis of network and impact/ influence area infrastructure, including Interviews and secondary surveys - December 2017  
Draft output of study, preparation of a planning document including impact analysis, financial planning and  
Identification of implementable projects – January 2018  
Final Study presented to city, state and national officials – February 2018 |
| Involvement of Experts | Urban Mobility Expert-National : 30 Man Days  
Urban Mobility Expert -International : 5 Man Days |
**Background:**
Swiss Agency for Development and Cooperation (SDC) is supporting the CAPACITIES project in 4 Indian cities including Siliguri. The project aims at strengthening the capacities of Indian cities to identify, plan and implement measures for achieving lower greenhouse gas emissions growth path and enhancing resilience to climate change in an integrated manner. CAPACITIES project is offering to assist the city to develop an efficient MTS for the region.

ICLEI Local Governments for Sustainability, South Asia (ICLEI South Asia) on behalf of Siliguri Municipal Corporation and CapaCITIES implementation team invites proposal for involvement of national as well as international mobility expert for “Developing technical pre-feasibility for a viable Mass Transport System for Siliguri under the Capacity Building Project on Low Carbon and Climate Resilient City Development in India (CapaCITIES)

**Description of the Project**
Siliguri is a rapidly developing metropolis in the region, in fact the largest. Many of the various issues plaguing the transportation system within Siliguri, are the after effects of the issues prevailing in the SJPA. The reason being, Siliguri is the focal point of the transport network of SJPA. So, if there is an issue at one point of the network, anywhere within the SJPA, it has a rippling effect on the system within Siliguri. Regional connectivity in the form of public transport accounts for only 10% of the total daily trips within the SJPA. The region lacks an integrated public transport system to lure in the passengers. Thus, there is a heavy reliance on intermediate public transport (IPT) and private modes of travel. This has led to saturation of on road traffic, especially in the cities of Siliguri and Jalpaiguri, and consequently congestion, increased fuel consumption, time and economic loss, and pollution. With future increase of on road traffic the situation is expected to worsen further. To improve travel conditions and reduce on road congestion, improve environment quality, and enhance safety and energy security, it is thus, essential to develop an efficient MTS for the region.

The study will review existing modes of public transportation, IPT systems, and other transport infrastructure along corridors; and will be based on the following sources/aspects:

- Available secondary information from existing planning documents of Siliguri Jalpaiguri Development Authority and Siliguri Municipal Corporation, Regional Transport Office, North Bengal State Transport Corporation etc.
- Primary key informant interviews with the local and regional stakeholders
- Spatial analysis of network and impact/influence area infrastructure
**Objectives of the project**

The primary objective is to conduct a technical analysis to develop a planning and pre-feasibility report for the transportation system of SJPA with a focus on Siliguri. With respect to the primary objective, the secondary objectives are:

- To conduct a background study of the transportation system of Siliguri as part of SJPA
- To collect and review evidence, followed by documentation of the same
- To conduct interviews and discussions with key stakeholders to corroborate the evidences, and to document their support and concerns
- To develop a technical draft report that outlines planning requirements and feasibility of cost and impact of a rail based MTS, listing opportunity and bottlenecks for the same too.
- To join the CapaCITIES Implementing Agency (IA) in presenting the same to appropriate/concerned government officials.
- To identify immediate next steps to implement the project.

**Outputs of the project**

- Existing transport infrastructure and services review.
- A planning and pre-feasibility report for the transportation system of SJPA with a focus on Siliguri.
- A viable option of MTS inclusive of route/corridor, financials, design, and role of information technology in strengthening the MTS etc
- Potential of integrating other organized and unorganized modes of transport to the MTS.
- Recommendations report, highlighting the immediate next steps for the entire city based on above.

**Study area**

Siliguri Jalpaiguri Planning Area (SJPA)

**Roles**

**National urban mobility expert**

- Initial site visit and information gathering, data collection, review of existing plans, and analysis, primary recommendations and suggestions
- Spatial analysis of network and impact/influence area infrastructure, including primary interviews and secondary surveys.
- Output of study including prioritization and costing of improvements suggested and impact expected
- Preparation of draft prefeasibility and planning document including financial planning and identification of implementable projects
- Presentation of draft prefeasibility report to City, State and National stakeholders with CapaCITIES IA
International expert
- Review the draft documents developed by the National Expert
- Conduct a technical analysis to develop a planning and pre-feasibility report on transportation services and infrastructure in SJPA, with a focus on Siliguri;
- Establish the technical feasibility of operationalizing an MTS;
- Conduct an impact study of the envisaged MTS with a focus on emissions saved as well as easing long distance movement especially during the monsoon season;
- Develop a recommendations sheet, and identifying a group of high level stakeholders to whom the recommendations could be presented.
- Finalise the output report and presentation
- Join the CapaCTIES implementing agency and SDC in presenting the same to important stakeholders.

Scope of Work
The primary scope of work includes assessment of existing transportation system in SJPA, identification of bottleneck and proposing the viable transport system with short term and long terms projects and appropriate implementing strategy. Listed are the tasks:

Task 1: Delineation of the Study Area, Time Frame and Demand Assessment
- Compile the approved urban transport development strategy and action plans from past/ongoing studies relevant to the project including traffic and transportation studies.
- Carry out spatial analysis of existing transportation system (including road network), its efficiency, carrying capacity and level of service.
- Compile the details of existing transport system with SJP Area which includes extent and routing of their operations, types of vehicles operational and categories of services and associated fare structure extended by each.
- Compile existing travel behavior, demand assessment, evaluation of the origin-destination pattern with ridership assessment of existing modes for the base year as well as for the horizont years of 2022 and 2027.

Task 2: Development of Business as Usual (BAU) Scenario
- Review and analysis of land use adjacent to the major routes/corridors to establish origins, destinations and important nodes for travel patterns.
- Establish a baseline for current transport system, assess the current modal split at the level of the city for year 2017, in terms of trips and trips x km.
- Suggest and discuss some targets for an envisaged modal split for years 2022 and 2027, at the level of the city.
- Present emission evaluation, for the envisaged mobility system for year 2022 and 2027
Task 3: Assessment of existing infrastructure in influence area

- Assessment of existing routes, mode wise passenger demand, mapping of routes on any transportation tool with performance parameters as link attributes.
- Identify the extent of missing infrastructure as well as overlapping of transport system, based on the operational performance of the routes.
- Identify the bottlenecks in existing infrastructure and quantify in terms of implementable actions.
- Assess the environmental impact of existing inefficiency.
- Propose viable alternative transport system to improve the service level and assess the potential of Mass Transit system along the major demand routes/corridors and readiness of infrastructure to support MTS.
- Evaluate bankable financial models with participation from private sector to implement the strategies (along with infrastructure).

Task 4: Mass transit system feasibility Plan

- Establish need of Mass transit for facilitating seamless connectivity using pre-feasibility report.
- Delineate influence area in which MTS can be considered.
- Prepare conceptual plan of MTS for study area and integration framework with existing systems such as bus, IPT and private cabs.
- Preparation of operational plan including system identification such as scheduling assessment of fleet, feeder route identification (for MTS) and integration with MTS Operations Plan etc.
- Identify implementation pattern for MTS including the financial aspects such as implementation cost, revenue generated etc
- Carry out comparative emissions study for MTS in SJP area and Evaluate the environmental impact of proposed system.

Task 5: Physical integration of last mile connectivity modes at MTS Stations covering dispersal and circulation Plans

- Preparation of conceptual multimodal integration plans at stations which will cover circulation plans to ensure smooth and efficient movement of all modes of last mile connectivity and integration with the MTS stations. Etc.
- Assess the applicability of ITS in integration of MTS with feeder services.
- Prepare an integrated ticketing system covering all public transport modes and specify the appropriate fare collection system.
- Prepare infrastructure development plan for integration of last mile connectivity modes (includes NMT) with MTS.
- Propose accessibility improvement plan for MTS station
Task 6: Institutional Integration

- Identification of best possible institutional mechanism facilitating integration of proposed systems.
- The institutional integration framework shall also involve suitable coordination mechanism between the agencies and stakeholders. The organizational structure and the roles and responsibilities also need to be identified for the implementation of last mile connectivity modes.

Task 7: Preparation of Business and Implementation Plan

- Detailed implementation and phasing plan and identification of agencies responsible for Implementation of the project.
- Development of business plan covering block cost estimates, means of financing, revenue, demand projections, operations & maintenance cost estimates.
- Organise a workshop to engage all key stakeholders including the city officials, state Government officials, relevant citizen groups, regulating ministries and prospective vendors, to present the findings of the study and brainstorm on critical issues.

Proposal submission:

- Both independent consultants and firms are welcome to apply for National as well as International expert.
- There need to be separate applications for national and international expert.
- The Expert/firm can either apply for the role of national expert or international expert.

Documents to be submitted by applicants

- Technical Proposal: The Technical Proposal should provide the following information/ documents
  - Consultant/ firm profile and detailed CV.
  - Consultants experience on assignments of similar nature, the outline should indicate, inter alia, the profiles and names of the staff provided (if in case of a firm), duration of the assignment, contract amount, and firm's involvement.
  - Detailed Approach and Methodology for undertaking the current assignment, project Schedule with activity and duration to accomplish the task within the scheduled project duration along with detailed work plan.
  - List of proposed staff, details of tasks assigned to each staff as per his / her experience shall influence the evaluation.
  - All relevant CVs shall be provided in full detail. If the CV of a proposed staff is found incorrect, the award of the consultancy to the applicant may also be liable to cancellation in such an event.
• **Financial Proposal:**
  o A financial proposal including all manpower, travel, equipment, survey and costs as may be required.
  o The Financial Proposal shall be inclusive of all the costs including taxes associated with the assignment.
  o It is clarified that, for the purposes of evaluation, the financial Proposal should be prepared in INR.
  o The total amount indicated in the financial Proposal shall be without any condition attached or subject to any assumption, and shall be final and binding. In case any assumption or condition is indicated in the financial Proposal, it shall be considered non-responsive and liable to be rejected.
  o The final amount should be quoted in both figure and word.
  o A copy of valid Pan Number, of registration with GST, last 3 financial year’s balance sheet (or as applicable), audited by certified Chartered Accountant need to be submitted.

**Qualification and Experience**

• **Urban Mobility expert –National**
  a. Minimum of 10 years of experience in Urban Transport planning and research and preferably should have a good understanding of Sustainable Urban Transport.
  b. Experience in planning, transportation studies inclusive of network analysis, demand analysis, public transport and mass transit studies, operations and management of transport systems is essential;
  c. The candidate shall be conversant with MTS developments across the world and should have good communication and writing skills;
  d. Should be a good coordinator and would be responsible for quality of the outputs;
  e. The candidate should have knowledge and experience in providing proposals for attractive, coherent, infrastructure for MTS.
  f. Should have experience in conducting traffic surveys, analysis and preparing circulation plans.

• **Part B –Urban Mobility Expert –International**
  a. At least 12 years of professional experience relevant to Urban Mobility
  b. Relevant experience of working on urban transport sector in at least 5 different countries of which at least 2 South Asian Countries
  c. Experience of working in Indian cities will be desirable
  d. Relevant experience on sustainable mobility solutions including Mass Transit System.
  e. Specifications experience that would enable the expert to recommend international best practices applicable to MTS sector.
  f. In depth knowledge of MTS planning and designing.
g. Expert should have strong communication skills and global expertise including prior experience of working on similar issues globally.

Proposal Submission

- The Terms of Reference (ToR) can be downloaded from the ICLEI South Asia website (southasia.iclei.org).
- The financial & technical proposals should be submitted as separate documents.
- The proposal should be submitted with title “Developing technical pre-feasibility for a viable Mass Transport System for Siliguri under the Capacity Building Project on Low Carbon and Climate Resilient City Development in India (CapaCITIES).”
- The Proposal can be submitted by applicant through email to ashish.rao-ghorpade@iclei.org on or before 17/10/2017.
- The proposal shall be submitted in two parts, viz. Part I: Technical Proposal; Part II: Financial Proposal

Terms and conditions:

- In case of any doubt/query regarding any portions of ToR, the applicant should send it by mail to contact person mentioned in ToR.
- ICLEI South Asia reserves the right to reject any Proposal, and to annul the selection process and reject all proposals at any time, without thereby incurring any liability to the affected applicant or any obligation to inform the affected applicants of the grounds for such decision.
- It should be noted that the project is being implemented in above SJPA jurisdiction area and hence instructions to applicants will be given by ICLEI South Asia in consultation with city officials. ICLEI South Asia will be overall in-charge for all the works that would be executed under the present scope of work.
- The applicant shall also obtain necessary permission from concerned government departments related to the work/data collection if deemed necessary and in coordination with city officials and ICLEI South Asia.
- The decision of ICLEI South Asia will be final.
- The proposals received will be scrutinized & evaluated by ICLEI South Asia in consultation with senior officials of city officials involved in the execution of CapaCITIES project. The decision shall be informed to the winning applicant.
- Detailed Work Order will be issued to winning applicant within 14 days of announcing the results.
- The selected applicant is to forward the signed and sealed work order to ICLEI at the earliest or not more than 7 (seven) days of issue of work order.