TERMS OF REFERENCE (TOR)

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| 1. | Assignment title  | : | Consultancy for Climate Vulnerability and Risk Assessment, and GIS Mapping for People’s Adaptation Planning in Narayanganj City Corporation (NCC) |
| 2. | **Location** | **:** | Narayanganj City Corporation Area |
| 3. | **Targeted Stakeholders** | **:** | Narayanganj City Corporation, Slum/LIC, Government dept. (LGED, DPHE, BMD, DOE, BIWTA etc.), local NGOs, Ward-based communities, Donors, etc. |

**Background:** The Narayanganj City Corporation (NCC), formed in 2011 with 27 wards consisting of 95 urban slums and informal settlements, is growing fast but facing challenges in unplanned urbanisation, waste management, and pollution. Climate change is making these issues worse, with the city already experiencing droughts, heatwaves, heavy rains, water shortages, and drainage problems. To address these challenges, the Asian Development Bank (ADB) is planning to support the Narayanganj Green and Resilient Urban Development Project (NGURDP) to build sustainable and climate-resilient urban infrastructure, aiming to deliver sustainable, climate-resilient, and inclusive urban infrastructure. To ensure that low-income and informal settlement communities are included in planning and investment, the ADB has engaged the Global Center on Adaptation (GCA) to develop People’s Adaptation Plan. With funding from Global Affairs Canada, the GCA is partnering with Practical Action in Bangladesh to support NCC in preparing People’s Adaptation Plan for priority wards in NCC.

The goal is to create a People’s Adaptation Plan for NCC that ensures that the climate resilience priorities of the urban poor are reflected in the NGURDP's investments and results, as well as in the three related master plans—the Urban Action Plan, Sewerage Master Plan, and Solid Waste Management Plan. The project focuses on integrating climate-sensitive priorities for marginalized communities into master plans, promoting nature-based solutions (NbS) to address long-term climate risks, informing infrastructure planning at the community level, and creating green job opportunities. This approach will enhance climate resilience, empower women, and contribute to sustainable urban development. At its core, it will follow **Locally Led Adaptation** **(LLA)** principles.

**Objectives of the Consultancy:**

Under the Narayanganj City Corporation, a **Climate Resilient City Action Plan** is in place, focusing on greenhouse gas emissions reduction, climate hazard identification, and resilience-building interventions. As part of the **Practical Action** project, special emphasis will be placed on identifying climate risks in informal settlements and climate impact in delivering urban services with qualitative and quantitative data evidence. This includes creating GIS maps of slum areas, conducting climate data modeling for the past, present, and future, and developing a climate risk index that incorporates both scientific and social data. The assessment will also strengthen local capacity for data collection.

To support the above activities, the present consultancy will support four interrelated objectives:

1. Conduct settlement profiling and GIS mapping of key infrastructure, natural resources and communities, including low-income settlements (LICs), waste/sanitation workers (W/SWs), and vulnerable wards, with socioeconomic and health data.
2. Conduct a comprehensive Climate Vulnerability and Risk Assessment (CVRA) considering both slow-onset and extreme climate events, critical infrastructure, and urban poor exposure. This assessment includes risk profiling and developing risk index of informal settlements (slums).
3. Analyse climate impact in delivering urban services in informal settlements and predict the trends/modeling the climate scenarios for future with scientific information.
4. Develop a list of costed priority interventions and adaptation measures based on risk profiling and community input.

**Scope of Work:** The Consulting firm will undertake the following activities:

**1. Climate Vulnerability and Risk Assessment**

* Conduct scientific assessment of **current** and **projected future climate risks**, including both extreme events (e.g., floods/waterlog, heatwaves) and slow-onset processes (e.g., urban heat island effect, water scarcity).
* Analyse the climate impacts in urban service deliveries with data and/or evidence.
* Integrate socioeconomic, demographic, and environmental trends into the risk assessment.
* Integrate relevant key resilience indicators from [the Climate Resilience Measurement for Communities (CRMC) tool](https://zcralliance.org/crmc/) of Practical Action- developed in association with the [Zurich Climate Resilience Alliance (ZCRA)](https://zcralliance.org/)
* Utilize Shared Socioeconomic Pathways (SSP2, SSP3, SSP4) for scenario development.
* Undertake climate risk profiling and develop a risk index for informal settlements (slums), incorporating indicators of hazard exposure, sensitivity, and adaptive capacity at the ward and community level

**2. Geospatial Mapping and Spatial Analysis**

* Use satellite imagery and drone surveys to map topography, settlement patterns, waterlogging zones, natural resources, and infrastructure in 95 slum/LICs across 27 wards in NCC.
* Generate updated base maps overlaid with flood-prone/waterlogged zones, heat stress areas, and waste accumulation hotspots.
* Create GIS maps visualizing climate risks (current and future), infrastructure, housing, drainage, WASH, and key facilities (e.g. schools, health care facilities, etc.).
* Develop ward-level and settlement-level risk maps highlighting high vulnerability zones.
* Provide GIS shapefiles, geo-tagged data points, and hazard overlays.

**3. Settlement Profiling and Enumeration**

* Facilitate community-led mapping with trained community mobilizers (from the communities), data collectors, and co-researchers guided by Practical Action.
* Design and apply detailed questionnaires in consultation with GCA and steering committee.
* Conduct detailed census/data collection/enumeration at the individual household level for two most vulnerable slums or LICs with priority basis requirements/development for that communities (after all the assessments). The census will cover:
	+ Household numbering
	+ Demographics and migration
	+ Income, occupation, housing materials
	+ Access to water, sanitation, health, and education
	+ Climate-related losses and adaptation behaviors

**4. Participatory Tools and Qualitative Research**

* Conduct Community/Urban Risk Assessments, conduct Focus Group Discussions (FGDs), Key Informant Interviews (KIIs), and Social Mapping exercises involving local community mobilizers with:
	+ Residents of LICs including women, youth, elderly and persons with disabilities
	+ Waste and sanitation workers
	+ Local officials and service providers
* Compile 10 case studies capturing lived experiences and quotes from vulnerable residents.

**6. Capacity Building**

* **Design and deliver** structured training for selected community members from each ward to serve as **community mobilizers, data collectors, and co-researchers**.
* Training will cover:
	+ Basics of climate change and urban vulnerability
	+ Use of mobile data collection tools and GPS
	+ Interviewing techniques and ethical considerations
	+ Data quality assurance
* Refresher sessions and continuous mentoring support during data collection phases.

**7. Priority Investment Planning**

* Identify and document adaptation interventions across the priority LICs from vulnerable wards of NCC :
	+ Infrastructure upgrades (drainage, WASH, housing)
	+ Ecosystem-based measures, or Nature-based Solutions (NbS)
	+ Early warning and disaster preparedness

**Deliverables:**

1. Inception Report (within 10 working days of contract signing)
2. Satellite base maps and updated GIS layers (ward and settlement levels)
3. Settlement profiling and household database (enumeration outputs)
4. A CVRA Report including Risk and vulnerability data, risk index and maps (present and projected scenarios) including Climate Risk Assessment (CRA)/Urban Risk Assessment (URA) report
5. Case studies and qualitative insights report
6. List of costed adaptation priorities from targeted LICs
7. Final Report with all annexes, data files, and shapefiles

**Duration and Length of Expected Engagement:**

There will be a maximum of 13 weeks from the commencement of the tenure, which begins upon signing the contract.

**Role of Practical Action:**

Practical Action will perform the supporting role to the consultant(s)/firm(s) in terms of linkage, guidance, advice, and financial aspects. The major responsibilities of Practical Action are to:

* Provide technical feedback and support throughout the process.
* Provide financial resources to execute the assignment.
* In consultation with the consultant(s)/firm(s), arrange consultation events as required.

**Preparation of Technical and Financial Proposal**

* Consultants are requested to submit their proposal written in English
* The technical part of the proposal should contain the following:
	+ Detailed methodology of the study including work plan in line with the assignment objective(s);
	+ Detailed timeframe including dates for submission of the outputs/deliverables as specified in the Term of Reference (TOR).
	+ Relevant experience and credibility to undertake the given assignment and experience in relation to the methodology proposed.
	+ Detailed CV of the team leader and key members of the study team.
	+ Technical proposal must not exceed ten pages (excluding CVs and organisational profile) and be submitted in PDF format.
* The Consultant is expected to provide justified budget to be consistent with technical proposal.
* The financial proposal should clearly identify, item wise cost for the assignment with necessary details. The budget must be including applicable AIT; however, VAT can be mentioned separately at the bottom on total budgeted amount.
* Practical Action will deduct VAT and Tax at source according to the GoB rules and deposit the said amount to government treasury

*Note that, costs associated with conducting advocacy events (meetings, and/or workshops, and/or consultations, and/or validations) will be taken care of by Practical Action.*

**Technical proposal will include the followings** – Suitability of the assignment, Understanding of the assignment, Implementation Strategy (Methodology, deliverables, workplan), Team Composition, Relevant Experience, Company profile, Ethical practices (please specify, Safegurding, Health and Safety)

**Financial proposal will include the followings** – detailed breakdown of budget/cost including narrative, Legal documents (Copy of Trade License, TIN Certificate, BIN Certificate, PSR (last tax return submission acknowledgement slip)

**Mode of Payments**

The release of funds will be made upon acceptance of deliverables as per the policy.

**Minimum Requirements:**

Interested team of consultants/consulting/ firm(s) is expected to have the following competencies and experience -

* Proven experience in Climate Risk assessment, Master plan development related works which includes modelling of climate change related scenarios
* The team leader or the climate expert should be an **academic professional** having vast experience on scientific climate risk and vulnerability assessment.
* The other key professional staffs will have experience and extended knowledge on the subject matter.
* One dedicated GIS/RS expert will be required within a specific time frame.
* Experience of previous related projects (minimum of 05) should be provided with completion certificates.
* Ability to provide capacity building for the data enumerators

**Deadline & Submission Process:**

Interested personnel(s)/firm(s) are requested to send proposals (Technical -max 10 pages and Financial) and relevant CV(s) at **procurement.bd@practicalaction.org.bd**and mentioning subject line “Consultancy for Climate Vulnerability and Risk Assessment, GIS Mapping for People’s Adaptation Planning in Narayanganj City Corporation.” By 05 July 2025

**Proposal Evaluation**

The evaluation committee will evaluate the proposals in relation to the TOR and applying the set evaluation criteria and weightage system specified herein. Each responsive proposal will be given score. Proposal(s) will be rejected at this stage if it does not respond to important aspects of the TOR.

The proposals will be evaluated according to criteria and the weightage as below-

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| Sl. No. | Criteria | Weightage |
| 01 | Understanding of the assignment | 10% |
| 02 | Technical proposal with detailed methodology & approach | 20% |
| 03 | Composition of the team (TL holds 50% of the weightage) | 20% |
| 04 | Experiences and achievement in similar assignment | 15% |
| 05 | Workplan and overall quality of the proposal | 15% |
| 06 | Budgetary Proposition | 20% |

* Practical Action reserves the right to accept and reject any proposal without assigning any reason or whatsoever
* Once the proposals are evaluated, only the shortlisted consultant/agency/ research firm will be contracted for next process for presentation or further clarifications
* Practical Action may enter into negotiation, if required, with one or more consultant / consulting firm for final selection

**Resignation and Cancellation/Termination of contract**

Practical Action in Bangladesh reserves the right to cancel, amend, and defer the contract agreement.

**Penalty Clause**

In case of delays in the submission of the document, a 2% penalty will be deducted from the total payment for each day delayed. The selected consultant must pay back the total amount of the advance money if it fails to submit all deliverables and/or withdraws from the contract. The selected consultant must notice Practical Action, in writing, if it needs to extend the submission date.

**Intellectual Property Rights**

All deliverables (knowledge material/s, report/s) will be considered as Practical Action’s property. However, any of them can be used by media and/or by the selected agency for people’s good with prior written approval from Practical Action but cannot sell to/reproduce for other entity.

**Important notes:**

1. Practical Action requires the consultant to take all safety measures to protect the Covid-19 pandemic and will not take any responsibility if the consultant or any of her/his associate consultant get affected by Covid-19 during/after the assignment.
2. Practical Action will not compensate for any damages/loss of any equipment.
3. Practical Action will not provide any vehicle, accommodation, and food to the selected consultant(s) in Dhaka.

**Safeguarding**

Practical Action firmly believes that no person, regardless of age, gender identity, disability, sexual orientation or ethnic origin or any other personal characteristic, should experience harm, including sexual exploitation or abuse, and Practical Action takes seriously its responsibility to safeguard those who come in contact with our work.  Practical Action is committed to raising awareness of safeguarding risks and to taking measures to minimise those risks.

All employees, trustees, volunteers, consultants, partners and others acting on behalf of Practical Action are expected to behave in ways that safeguard others from harm, sexual exploitation and abuse.  This includes evaluation consultants and their team members.

If anyone acting on behalf of Practical Action, including evaluation consultants and their team members, develops concerns or suspicions regarding harm, sexual exploitation or abuse by a Practical Action employee or anyone acting on our behalf they must report their concerns via the established reporting procedures.  Individuals do not need to have, nor should they seek to obtain, evidence to support their concerns – the individual’s duty is to report their concerns so that Practical Action can investigate appropriately.

Practical Action’s Safeguarding Policy is available online [here](https://practicalaction.org/wp-content/uploads/2022/07/Safeguarding-Policy.pdf).  All consultants and their team members acting on behalf of Practical Action are required to familiarise themselves with this policy and print and sign the policy declaration form at the end.  This must be returned to Practical Action before commencing any work on this assignment.

Practical Action also has a Code of Conduct.  All consultants and their team members are expected to read, print, sign and return this before commencing any work on this assignment, available [here](https://practicalaction.org/wp-content/uploads/2021/08/Practical-Action-Code-of-Conduct-Version-0002.00.pdf).

Practical Action’s Safeguarding Focal Points are available to answer any questions about this policy, the Code of Conduct and their contents.  They are also available to support with briefing of consultancy team members as required prior to commencing field work.