**Terms of Reference (ToR)**

For engaging a consultant to undertake a Baseline Study for

***“Formalization of Plastic Recycling Value Chain by forming Recycling Business Units in Bangladesh”***

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| Summary of Purpose | The purpose of the baseline study is to measure current knowledge, and level of practice towards plastic bottle collection and recycling from the households to the Recycling Business Unit (RBU)s in targeted areas covered by the project in line with the project objective, intermediate results, and indicators. Additionally, the baseline study will also enable identification and understanding of the level of plastic bottle waste generation from the communities by the informal waste pickers and bhangaris, specifically in terms of their self-practice, management system, ability to act, knowledge and awareness, and connectivity with supporting actors. |
| Scope of Work of the Consultant | Submission of an inception report (study design), preparation, implementation, data cleaning and analysis, and reporting of the baseline study. |
| Summary of Methodology | The study will utilize mixed method(s), employing both quantitative and qualitative approaches, adapted to the local context. This will include a questionnaire-based household-level survey, Focus Group Discussion (FGD), In depth Interview (IDI) and Key Informant Interview (KII). |
| Audience | Local bhangari (small, medium and big) and local recycling shops, agents, Informal Waste Pickers (IWP) (waste pickers, van drivers, feriwala/ hawkers), middleman/local supplier/local entrepreneur, recycling factories, local plastic bottle vendors, local community people & households. |
| Commissioner(s) | Centre for Development Innovation and Practices (CDIP) and Bangladesh Petrochemical Company Limited (BPCL) |
| Reporting to | The consultant will report to the Centre for Development Innovation and Practices (CDIP) Program Section, with attention of the Focal Person, Assistant General Manager, and Project Manager- PLEASE project. |
| Location of Project Sites | Rupgonj, Narayangonj; Dagonbhuyan, Feni; Bangla Bazaar, Cox`s Bazar; Mijmiji, Narayangonj |
| Expected Start Date | **June 27, 2024.** |
| Expected Duration | **45 calendar days (June 27, 2024 – August 11, 2024).** |

# 1. BACKGROUND AND OBJECTIVES

**1.1. Background and Goals of the Project**

Bangladesh Petrochemical Company Limited (BPCL) and the Centre for Development Innovation and Practices (CDIP) are jointly implementing the project titled "Formalizing the Plastic Recycling Value Chain to Ensure Steady Collection of recyclable plastic (RP) removing them from Environment by the Introduction of Recycling Business Unit (RBU)," whereas, BPCL will do the production and manufacturing part of the project and Centre for Development Innovation and Practices (CDIP) will look after the social intervention and general activities of the project as the Social Intervention Partner (SIP) of BPCL. A set of integrated interventions, including IWP (Informal Waste Pickers) and Bhangari Association formation and strengthening of waste suppliers and consumer awareness will contribute to increase the economic wellbeing, improve personal & occupational safety situation, behavior change on personal health and hygienic practices of the targeted IWPs. Life-skills/soft skills will guide the IWPs, especially the lower tier in the waste management sector in improving their working/living conditions and actively participate in decision making process in all spheres. At a later stage, being formalized as an association will bring them under an umbrella organization to establish their economic, social entitlements and formalization of the bhangaris. Micro-franchising model of the RBUs will create a more sophisticated access to the market process, which involves the units (and waste-collection management) to manage inventory, storage, logistics and transport, while professionalization of bhangari will create a space to expand the business of the waste suppliers through business skills development, market linkages enhancing, and facilitating access to finance for them.

The initial objective of the project is to professionalize bhangaris and their operations allowing to create a network of well-functioning Recycling business units (RBUs) through which rigid recyclable plastics (PET, HDPE, LDPE, PP) will be collected and sorted. These collected plastics after proper sorting and processing will be sent to the Recycling Business Unit (RBU)s. Once the RBUs are set up, the project will focus on - improving the working conditions of waste pickers and workers in bhangari shops which is therefore focusing on efficiencies, synergies, and margin improvement.

**1.2. Project area**

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| **Key intervention** | **Location** |
| Professionalize IWPs and Bhangari Shops; Local Plastic Bottle Recycling Practice and Supply Chain; Recycling with better environment and facilities; Social Barriers of IWPs and Bhangari shops. | Rupgonj, Narayangonj; Mijmiji, Narayangonj; Dagonbhuyan, Feni; Bangla Bazaar, Cox`s Bazar |

**1.3. Project/Program Stakeholders**

This project is a partnership between CDIP and BPCL, with BPCL handling production and CDIP serving as the Social Intervention Partner (SIP), responsible for social activities and project oversight.

**1.4. Objectives of the Baseline Study**

The purpose of this baseline study is, **Firstly,** to assess the knowledge and understanding of the local plastic bottle recycling practice of the community, adjacent to the RBU and the supply chain of the bottle recycling process of the absolute communities covered by the project. The study attempts to understand, at the household level and the industrial level, ongoing practices in the plastic bottle recycling process. It intends to provide baseline data on community-based plastic bottle recycling indicators to set out realistic project targets and enable the assessment of project progress over time. **Secondly,** at the community level, the study aims to find out the hotspots where the bottles are dumped mostly and volume of the dumping for better understanding and analysis in terms of production and recycling volume adjacent to the RBU community. This will be accomplished through examining community-level based plastic bottle consumption and scope of different level wise consumption at the project areas. **Thirdly,** the baseline study will also be envisioned to see the situation of social barriers and challenges of Informal Waste Pickers (IWPs) and bhangaris. Also, the context will give the glimpse of present average monthly income of IWPs, hawkers and bhangari at that community adjacent with the RBU; perception of IWP in terms of their occupational health and wellbeing; women participation and women-led actor’s response.

Overall, this baseline study will enable to assess community knowledge and practices regarding plastic bottle recycling, identify dumping hotspots, and examine social barriers faced by Informal Waste Pickers (IWPs) in the project area, including income levels and women's participation. The result of the baseline will be used to adjust project strategies and intervention (where necessary and applicable) to ensure that project activities address gaps identified from the baseline study. Furthermore, the baseline results will be compared with future midline and end-line results to examine project outcomes over time. Lastly, the study results will also enable learning and sharing of community practices on using innovative tools and resources to help increase their safety and resilience.

# 2. SCOPE OF WORK OF THE BASELINE CONSULTANT

The consultant will be responsible to ensure the baseline study utilizes relevant and appropriate tools and techniques in order to get the desired results of this consultancy. The scope of work includes the following:

* Review of secondary sources of information - Collect and review relevant data, reports and publications, both project-related and Plastic bottle recycling component- related, as part of the overall analysis and reporting Questionnaire finalization (in close consultation with the project team) - Provide technical support in finalizing questionnaire(s) for the household survey - Transfer questionnaire(s) into relevant technological platforms to enable mobile data collection and data submission to an online server (if applicable) - Translate data collection tools into local language(s) where relevant, orienting enumerators on questionnaire and context.
* Conduct baseline survey (in close consultation with the project team) - Recruit and train enumerators - Provide necessary guidance to enumerators - Establish mechanisms to ensure data quality - Lead and coordinate data collection.
* Data management, analysis, and reporting (in close consultation with the project team) - Perform data cleaning and consolidate findings from the survey and assessment - Perform data analysis - Prepare the Baseline report - Present Baseline results to the project team and other stakeholders as relevant.

# 3. BASELINE METHODOLOGY

**3.1 Study Methodology**

The consultant/s are free and encouraged to be as creative as possible in arriving at a suitable methodology that will ensure that the objectives of the study are fully met in a timely and efficient manner, if methodology meets the standard and recommended methods and proposed sampling parameters indicated in this term of reference. Moreover, the consultant is also suggested to adhere to gender analysis and incorporating gender dimensions in all possible stages throughout the baseline study.

**3.1.1 Household Survey**: Household surveys (i.e., either on-site enumerator-assisted in depth interviews or on-site local volunteer-assisted in-depth interviews) where the consultant may use mobile devices for using apps such as ODK or Kobo Toolbox to collect data from the field. For the interview, the head of household will be the preferred as respondent in this study, however, in case of absence of the head of household, another adult member of the household can be chosen. The selected household survey sample will ensure proportionate representation in terms of gender and ethnicity of the population of the target areas.

**3.1.2 Focus Group Discussion (FGD), Key Informant Interview (KII), and In-Depth Interview (IDI)**: The baseline study will also incorporate FGDs, KIIs and IDIs to gather more qualitative data which will provide additional in -depth information and allow to triangulate data in coordination with project team. Gender perspectives will also be incorporated while selecting the participants for conducting FGD, KII and IDIs.

# 4. SAMPLING PARAMETER

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| Geographic Scope | The geographic scope of the study will be the same as that of the project. | |
| Target Population | The number of sampled households, bhangaris, Recycling Business Unit (RBU)s & IWPs will be proportionately allocated by total population in selected communities. As there is no requirement that all project’s target communities/unions/wards be included in the household survey, a representative sample can be proposed at the discretion of the consultant. The process for this should be clearly indicated in the inception report. As much as possible, national census data should be taken as reference to ensure proper representation of respondents from the inclusion perspective. | |
| Sampling unit | The study will utilize both primary and secondary data where the former will rely on data collection from primary sampling units (PSU) at the household level, bhangaris, & IWPs while the latter will rely on data collection from other available sources, such as past assessments/evaluations and reports. | |
| Sampling method | The proposed sampling method for the study is probability-simple (random) sampling, or any suitable proposed sampling method from the consultant. | |
| Sample size parameter | The consultant should also clearly describe process and other relevant parameters (see proposed sample size parameters below) for determining sample size in the inception report. The consultant should also indicate anticipated non-response rate in the inception report. Also, the sample size needs to be calculated using scientific formula/ standard formula. | |
| Significance level | 95% |
| Estimated Baseline Value of Key Indicator[[1]](#footnote-1) | 35% |
| Expected Future Value of Key Indicator at End-line | 55% |
| One or Two-Tailed Test | One |
| One Design Effect (10 on-test samples for tools test) | 2 |

The consultant will also undertake a descriptive analysis (means, confidence intervals, etc.) of the data collected from the baseline survey as part of the overall analysis and reporting of the baseline survey.

# 5. WORK PLAN AND EXPECTED DELIVERABLES

5.1 Work Plan (indicative): The study period will be for a maximum of 45 calendar days. The consultant will be required to provide and confirm a detailed work plan during the inception period.

5.2 Expected deliverables for the Baseline study are as follows:

1. Inception Report (study design)
2. Finalized data collection tools, in English and the local language.
3. Knowledge sharing workshops for field staff, in English and the local language.
4. Data entry software designed for survey (for use with mobile devices).
5. All data files in SPSS & Excel (raw data sets, modified data sets, log files, code book).
6. Sampling weights used in data analysis (if applicable).
7. Report with preliminary study results.
8. Draft report (based on feedback provided from initial version with preliminary results).
9. Final report. The final report should include detailed information on the following: Executive summary, Sample size calculation, sample design - Allocation of units across stages, selection of units at each stage - Methodology for selecting respondents at the final stage - Questionnaire finalization - Training of enumerators - Listing operations - Quality control measures and ethics - Data cleaning and analysis (including non-response, variance estimation technique used and how complex sample design was accounted for) - Lessons learned to inform future surveys and assessments including experiences in utilizing ODK/mobile phone data collection. In addition, the baseline report needs to come with the following template: acknowledgement, abbreviations and acronyms, executive summary, baseline value, table of contents, list of figures, introduction, baseline study purpose and objectives, geographical locations and targeted beneficiaries of baseline study, project background, sampling plan for quantitative data collection, sample distribution for the qualitative data collection, data triangulation, findings, socio-economic and demographic situation, conclusions, and recommendations
10. Sharing the raw data and information with the project team for further utilization.
11. Submission of Final Baseline Report including Submission of an Inception Report (study design), preparation, implementation, data cleaning and analysis, and reporting of the baseline study.

# 6. OPERATIONS

**6.1 Administrative and Logistic Support**

The consultant is expected to use her/his own laptop/computer. Approved administrative and logistical costs will be reimbursed by the project team.

**6.2 Reporting Relationship**

The consultant will report to the Project Manager-CDIP of PLEASE project of CDIP.

**6.3 Quality Assurance and Ethics**

The consultant will be required to establish mechanisms to ensure data quality and compliance to standard research ethics for the Baseline study. This should be clearly indicated and described as part of the inception report.

# 7. QUALIFICATION, APPLICATION, AND SELECTION

**7.1 Qualification of Consultant**

The required qualifications and experience are as follows:

* Five to seven years’ experience conducting and leading survey research and assessments, both quantitative and qualitative, of which should be with international organizations (NGOs, UN, and other humanitarian agencies).
* Post graduate degree, from a recognized institution, in social science, survey methodologies, or monitoring & evaluation.
* Demonstrated experience in questionnaire development and testing.
* Demonstrated experience in training and managing data collectors/enumerators.
* Experience with survey work in Plastic Recycling or related sectors.
* Experience in Monitoring and Evaluation (preferably in Recycling or related sectors).
* Excellent knowledge and skills in research methodology and statistical analysis.
* Demonstrated experience and expertise in designing, managing, and analyzing data for multifaceted survey designs (stratified, clustered, multistage, disproportionate selection probabilities, etc.).
* Experience in using mobile device-based data collection.
* Advanced computer skills (SPSS and Excel).
* Excellent communication skills for training and facilitation, and leadership to manage and coordinate a team of data collectors/enumerators.
* Excellent report writing skill in English and local language skills is highly desirable.
* Ability to work independently, ability to juggle and coordinate various tasks simultaneously, ability to prioritize tasks, well organized, reliable, and trustworthy.

**7.2 Application Procedures**

The application proposal should not exceed 10 pages[[2]](#footnote-2) with utilizing, and should use the following outline:

* Consultant experience (with detailed CVs attached) of all professionals who will work on the baseline study. This section should highlight experience of the consultant in conducting sample surveys and assessments, preferably with complex sample designs in developing countries. The section should mention names, qualifications and experiences of all persons who would be involved in various aspects of conducting the survey, along with level of efforts.
* Methods: Study objectives, methodology, sample design-calculation-selection, and an analysis plan. If local volunteer-assisted in-depth interviews will be utilized with appropriate remote training provided to the local volunteers, then this should be clearly indicated and described with appropriate rationale provided. If alternative methods (in addition to or in place of what is recommended in this ToR) are proposed to align with the current COVID-19 operational context, this should be clearly described with appropriate rationale provided.
* Work plan: The proposal should clearly describe all relevant activities to be conducted, including preparatory work, training, sampling and data collection work, data entry, data processing and analysis, results and report writing. The timeline and person(s) responsible for each activity needs to be clearly mentioned.
* Field team: If there is more than one consultant on the proposed team, please provide the number of persons needed for data collection and other proposed activities. Please utilize the table below as reference to provide the level of effort (in number of days) of each team member for all proposed activities:

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Name of person/s | Level of Effort (in day/s) | | | | | | |
| Data Collection Tools development | Training | Field work | Data entry and cleaning | Data analysis | Report writing | Presentation of findings |
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**Training:**

State that who will be responsible for training of data collectors/enumerators and include information on prior experience. Describe how the training will be done, the topics covered, expected duration and logistic and administrative support needed from the project team.

* Quality control and ethics: For the method(s) proposed, provide a section detailing the mechanisms to ensure data quality by clearly specifying steps for data validation. This section may also include supervisory mechanism for data quality and the role of field editors. Measures for compliance to standard research ethics should also be stated here.
* Data entry and processing plan: This section should clearly describe preparation and mechanism for data entry, validation checks and data processing activities.
* Data analysis: Provide details on the analyses that will be carried out, and on the person(s) responsible for data analysis (including prior experiences).
* Progress updates: This section should clearly indicate the mechanism that would be used to communicate with relevant officials to provide regular updates about proposed field activities, coverage rate, data entry status, etc.
* Proposed Budget: A breakdown of all associated costs for the Baseline study should be provided in BDT and USD both. The consultant is requested to provide 2 proposed budgets: one for the package that includes enumerator-assisted on-site in-depth interviews for household surveys with on-site training to enumerators, and another one for the package that includes 10 on-site in-depth interviews assisted by local Red Cross volunteers with provision of remote training to volunteers in communities for household surveys. If alternative methods (in addition to or in place of what is recommended in this ToR) are proposed to align with the current COVID-19 operational context, this should be clearly reflected in the budget with appropriate cost breakdown analysis provided.
* Professional references: Provide three references from your previous clients.
* Writing Sample: Provide one sample of a recent baseline study (or related work) completed for another client where you are the lead author and principal researcher.

**7.3 Selection Criteria**

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| **Parameter** | **Weightage (in %)** |
| Qualifications section | 15% |
| Cost | 20% |
| Experience in quantitative and qualitative research methodologies | 25% |
| Experience in Plastic Recycling sector | 25% |
| Number of Days and Timeline availability | 15% |

Please submit your proposal application in English no later than **20 June 2024** to (**ories@cdipbd.org**) with cc ([**taufirseam.bpcl@gmail.com**](mailto:taufirseam.bpcl@gmail.com)) and (**sohan.bpcl@gmail.com**). In the subject line please include your full name along with the following words “Consultancy Application: Baseline Study for PLEASE Project 2024”. Only short-listed candidates will be notified and contacted for an interview. Applications received after the deadline or incomplete applications will not be considered.

# 8. TERMS OF PAYMENT

Payment will be based on agreed on key deliverables:

* 30% of consultancy fees will be paid one week after submission of Inception Report and Finalized Data Collection Instruments
* 30% of consultancy fees will be paid within one week after submission of draft report with key findings and presentation of draft report and stakeholder consultation/review.
* 40% of consultancy fees will be paid within one week after submission of Final Report with the approval of the authority and the dataset used for the report. The fees will be paid by cheque/bank account transfer upon agreement with the consultant. VAT and tax will be deducted as per local government policies.

1. There is a set of indicators in the project MEL plan. Consultant must adhere to those indicators and additional indicators that can help the implementation as well as wider contribution to strategy and policy works. The set of indicators will be shared with consultant from the project MEL team. [↑](#footnote-ref-1)
2. To increase the readability of your proposal and to prevent it from looking too “busy,” it's best to use no more than three fonts in your proposal template. A suggested list is Arial for headings (e.g., font size 16 for Heading 1 and size 13 for Heading 2) Times New Roman 12 point for body text. [↑](#footnote-ref-2)