Terms of Reference (ToR) Primary Survey on

"The Carbon Stitch: Assessing Carbon Lock-In in the RMG Sector of Bangladesh"

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6 August 2025



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1. Background and Objectives

The Ready-Made Garments (RMG) sector in Bangladesh plays a crucial role in the national economy, being the largest export earner and a significant employer. However, the sector is also a notable contributor to greenhouse gas emissions due to energy-intensive production processes, and reliance on carbon-heavy infrastructure and technologies. Transitioning this sector towards low-carbon pathways is critical for sustainable development and climate resilience.

Carbon lock-in refers to the self-perpetuating inertia created by existing systems that prevent the adoption of low-carbon alternatives. It occurs through three primary dimensions: infrastructure and technological, institutional, and behavioural lock-ins. Understanding these dimensions in the context of the RMG sector is essential to design effective decarbonization strategies.

This concept note outlines a primary survey design aimed at assessing these carbon lock-in determinants in the RMG sector of Bangladesh. The major contribution of this study is that this literature will cover the carbon lock-in from the demand side instead of the supply side, as covered by a vast number of relevant literatures in Bangladesh. Moreover, this literature is based on the narrative that the consumer base, in our case, the RMG sector, of the power and energy sector is bound to consumer energy due to inadequate alternatives and proper support from both government and investors. In this regard, from a superficial perspective, the aspects that seem like supply-side issues will also be analysed from the demand-side perspective.

2. Objectives of Procuring a Survey Firm

As part of its broader research on low-carbon transition in Bangladesh's RMG sector, CPD intends to undertake a comprehensive primary survey to examine the multiple dimensions of lock-ins that hinder this transition. The survey will assess infrastructure and technological lock-in by examining energy consumption, machinery, and technological dependencies; explore institutional lock-in through policies, regulations, supply chain dynamics, and financial incentives; and analyse behavioural lock-in by capturing the perceptions, decision-making, and attitudes of factory stakeholders toward adopting low-carbon practices. A qualified survey firm will be engaged to collect, clean, and deliver the final dataset to CPD.

3. Scope, Activities and Deliverables of Survey Firm

The survey firm will be responsible for data collection and final data submission. It will not be required to design survey instruments or produce research reports. CPD will provide two structured and translated survey questionnaires, complete with coding, for data collection. The firm must ensure high-quality data collection, cleaning, and delivery while adhering to ethical and methodological standards set by CPD.

Activity	Description	Deliverables
Survey Digitalisation	Convert the provided questionnaires into Kobo Toolbox or Survey CTO format to ensure correct mapping of questions and coding for seamless data entry	The survey form link with CPD for checking and vetting
Enumerator Training	Conduct training sessions on survey tools, ethical considerations, and data collection procedures. Provide hands-on practice with digital survey tools to minimise errors	CPD will facilitate the session

Data Collection	Conduct field surveys targeting 350 factories across different regions	Primary check of the data
Data Cleaning & Submission	Validate, clean, and standardise the dataset, checking for inconsistencies and missing responses. Deliver the final cleaned dataset to CPD in a structured format (the required format is in MS Excel and Stata).	Encoded final data

Table 01: Activities and Deliverables

4. Sampling Methodology for the Survey

4.1 Identification of Target Population

The target population comprises operational Ready-Made Garments (RMG) factories in Bangladesh with a minimum of 10 workers. This threshold ensures inclusion of factories with a basic level of formal structure relevant for assessing carbon lock-in dynamics.

Factory identification will be based on the Mapped in Bangladesh (MiB) database, which provides comprehensive and up-to-date information on factory locations, types, and operational statuses. The MiB database will serve as the primary sampling frame. The survey firm will extract contact details from the database and verify eligibility through phone calls or visits, as necessary, to confirm both operational status and workforce size. Only factories meeting the defined criteria will be included in the final sampling pool.

4.2 Sample Size

With a population of 3320 operational RMG factories in Bangladesh, according to the Mapped in Bangladesh project, we determine a sample size of **350 factories**, with 5% margin of error, 95% confidence level.

4.3 Sampling Method

The survey will follow a stratified random sampling (SRS) approach, using the MiB database as the sampling frame. In this method, the population of establishments will first be divided into distinct, non-overlapping strata, and then samples will be drawn randomly from each stratum.

The survey uses the following stratification categories:

- Factory type: 5 categories which are Knit Garment, Woven Garment, Both Knit and Woven Garment, Sweater, and Knit Composite.
- Size: 3 categories: Small (up to 500 workers), Medium (500 to 2500 workers), and Large (more than 2500 workers)
- Region: 4 categories which are Dhaka, Gazipur, Narayanganj, Chittagong

Location	Size	Knit Garment	Woven Garment	Knit x Woven	Sweater	Knit Composite	Total
Dhaka	Small	27	31	12	16	0	86
	Medium	8	22	4	5	1	40

	Large	1	5	1	0	1	8
Gazipur	Small	20	8	4	19	1	52
1	Medium	15	21	5	11	4	56
	Large	3	6	1	2	4	16
Narayanganj	Small	29	1	2	2	1	35
	Medium	9	2	1	1	3	16
	Large	0	0	0	2	0	2
Chittagong	Small	4	6	11	3	0	24
	Medium	4	3	6	0	0	13
	Large	1	1	0	0	0	2
Total		121	106	47	61	15	350

Table 02: Sampling Distribution across different stratification categories

4.4 Respondents within Firm

- 1) Technical and Maintenance Team /TDS: For energy consumption and machinery related details access electricity, fuel oil, gas purchase invoice for energy consumption details
- 2) Board of Directors (BOD) members/ Managing Director: for regulatory and institutional dimensions of lock-in
- 3) Sustainability / EMS or Compliance team: for buyer related obligations and requirements
- 4) Production team: for training and worker attitude related parts
- 5) Civil team: for building material and design related energy-efficiency parts

5. Work Plan

The assigned activities will take place from August 17 to September 15, 2025.

Activities	Date
Detailed Plan of Activities	17 August
Development of Computer Aided Survey Form in Kobo/CTO	19 August
Conducting Training on Enumerators	23 August
Conducting Field Survey	24 August
Data Cleaning and Validation	10 September
Sharing Final Data	15 September

Table 03: Activity Schedule

6. Issues to be Considered

Survey Equipment and Software: The data will be electronically collected using tablet computers running on an Android platform and uploaded to a server daily, allowing for remote quality control and tracking study team. Hardware and software to be used by organisational convenience. We propose to use Survey CTO or KoboToolbox for conducting this survey.

Recruitment of the Survey Team: The enumerators to be recruited for conducting the survey must have science background. However, enumerators having qualifications and experience from technical, environmental or textile engineering or diploma engineering backgrounds should get priority.

Implementation of training for the Survey Team: For survey implementation, training will be provided to the interviewers and field officers according to the questionnaire of the field survey.

Survey Fieldwork: The survey firm is responsible for writing, getting approval for, and sending letters and/or e-mails, making phone calls, setting appointments, visiting in person, and otherwise making attempts to secure high levels of participation. Fieldwork is needed to complete the survey responses. Substantial effort and resources should be allocated to the preparation and logistics before the fieldwork begins. The survey firm will be required to ensure participation in the survey, access the targeted regions, and maximise participation and response rates to each question. CPD can help provide support, such as official letters from CPD if required. The survey firm is expected to collect and verify the phone numbers and addresses of all respondents whenever available. GPS coordinates of the interviewed respondents' addresses need to be collected.

Survey completion: For a survey to be completed, relevant information must be obtained and entered into the database. No questions should be left blank except the ones skipped due to correctly applied skip patterns. The integrity and accuracy of the data are vital. The firm will establish procedures to check the quality of the interviews. At least ten percent (10%) of the completed interviews will be backchecked by telephone by the Consultant; the proportion of callbacks will also depend on the quality control feedback provided by CPD. Managers of the survey will randomly check enumerators and accompany interviewers on some interviews. Representatives of CPD may accompany survey teams to monitor effectiveness, ensure quality and check for progress in the field.

Data Entry, Format and Sharing: The survey firm will share access of the database with CPD so that the researchers can check the data in real time during the data collection process. CPD may download the data for checking inconsistencies and to advise accordingly. The final data set will be delivered after the completion of 100% of the interviews. The survey data will be delivered to CPD in Microsoft Excel (including codebook) and STATA electronic format. The consultancy team/s and the study team will adhere to the safeguarding, PSEA, Harassment, Data Protection and Privacy standard policies throughout the activities.

7. Data Quality and Non-Participation

In order to ensure data quality and consistency, a survey data quality control procedure is in place. The first checking of the data will be completed and documented by the survey firm—

- There are no errors in variables codes, questionnaire flow, skip patterns, number of missing values, etc.
- There is no "double counting
- Monitoring of collected data
- Flagging implausible data
- There are no errors in data's logical consistency or outliers
- Checking for straight-line answers, etc.
- **Ethical Consideration**: The survey be guided by the following ethical considerations:
 - Safeguarding demonstrating the highest standards of behaviour towards respondents
 - Sensitive to gender rights, inclusion, and cultural contexts
 - Openness of information given to the highest possible degree to all involved parties
 - Confidentiality and data protection measures will be put in place to protect the identity of all participants and any other information that may put them or others at risk.

It is expected that: Informed consent will be used where possible.

8. Submission Procedure

CPD requests you to submit the proposals via email to <u>procurement@cpd.org.bd</u> by **August 14**, 2025. Proposals submitted after this deadline will not be accepted.

When submitting, bidders must use the subject line **Proposal for RMG Carbon Lock-in Survey**. Proposals should be concise and must include three parts: **technical proposal**, **financial proposal**, and **relevant documents**.

a. Technical Proposal:

In the technical proposal the bidders are requested to:

- Provide a detailed description of the tasks to be undertaken, including a clear and concise strategy for completing the activities, without replicating the Terms of Reference (ToR).
- Prepare a timeline for task delivery, including a brief description and a Gantt chart.
- Provide a description of why the bidding organization is well-suited for the task.
- Provide brief descriptions of previous experiences with similar work, including contact information for at least two organizations where such work has been successfully completed.
- Provide a brief description of the project personnel and their relevant experience.

b. Financial Proposal:

For the financial proposal the bidders are requested to:

- Provide a detailed breakdown of the costs for each material and task.
- Include applicable VAT and taxes as per the government rules.

c. Relevant Documents

For this part, bidders are requested to provide:

- Acknowledgment receipt for the last annual TAX return
- TIN Certificate
- Bank Account details
- Incorporation certificate
- Provide the contact information of the organization.
- Contact information of the project focal person.
- CVs of the project personnel

The table below outlines the page limit for the contents of the proposal.

Topic	Page limit (max.)
Cover page	1
Table of content	1
Technical Proposal	
Detailed description of the tasks and strategy	3
Timeline for task delivery	1
Suitability of the organisation	1
Brief descriptions of previous experiences	1
Brief descriptions of the project personnel	1
Any other relevant information (if necessary)	1
Financial Proposal	

Budget detailing out the total fee (including VAT and tax as per	1
the government rules)	
Relevant Documents	
Acknowledgment receipt for the last annual TAX return	1
BIN Certificate	1
Bank Account details	1
Incorporation certificate	1
Contact information of the project focal person	1
*CVs of the project personnel	N/A

Table 04: Page Limits for Proposal Contents

Note: *The CVs of the personnel involved in the project work can be sent as a separate file annexed to the proposal; they should not be included as part of the main proposal document.

9. Evaluation Criteria

The table below outlines the evaluation criteria

Area(s)	Criteria	Weight
Technical	Understanding of the Assignment	25
	Qualification of the key team members	5
	Timeline and Strategy for the assignment	5
	Experience in similar Projects	30
Financial	Competitive pricing with a reasonable and justifiable financial proposal	35
Total		100

Table 05: Evaluation Criteria

10. Finance Related Special Notes

- All payments for the selected vendor will be made through Account Payee Cheque in favour of the selected vendor.
- CPD will deduct TDS from the billed amount as per Section 52A, Income Tax Ordinance 1984.
- Selected vendor will need to provide CPD Mushak-6.3 with the bill at 15% rate, as per Statutory Regulatory Order (SRO) 235.
- The selected vendor must provide Mushak-6.3.
- The selected vendor will need to produce original invoices for each delivery made under each Purchase Order within this contract period

11. Disclaimers

- CPD reserves the right to select or reject any vendor who will drop the proposal for providing the service.
- Any attempt to unlawfully acquire and/or persuade to get the assignment will lead to immediate rejection of the respective service-provider, and CPD may also take legal actions, if required.
- Failure to deliver according to the terms of the contract shall subject the vendor to penalties as will be stipulated in the final contract.
- CPD will not be liable to indemnify any third party in respect for any claims, debt, damage, or demand arising out of this contract.

- CPD will not accept any Liability for the compensation for death, disability or hazards. Which maybe suffered by the Supplier/Supply chain through this contract while supplying CPD, no such claims will be made against CPD.
- If the bidder breaches any term or condition of this agreement (part or all), or the conditions set out in any given Purchase Order/Contract, including, but not limited to, quality of the Goods/Services, Price and Delivery requirements, the buyer shall be entitled to immediately purchases goods/services from any other source/Suppliers, in addition to any remedy available in law or equity.
- Bidders must avoid actions conflicting with CPD's principles or creating real or perceived conflicts of interest and must uphold integrity, independence, and impartiality, refraining from public statements that could harm their relationship with CPD.
- CPD enforces zero tolerance for fraud, corruption, or terrorist financing, requiring vendors
 and consultants to act with honesty and integrity. Violations may result in disciplinary
 measures, legal action, and reporting to law enforcement for prosecution.
- CPD may unconditionally terminate any agreement if a supplier violates national labour laws
 or fails to protect children's rights, including safeguarding them from violence, abuse,
 exploitation, or harm.
- CPD enforces zero tolerance for sexual exploitation and abuse (SEA) and requires adherence to its Safeguarding Policy by all staff, vendors, and associated personnel.

12. Contact Persons

The study will be coordinated by the following persons, and any queries regarding the ToR can be clarified by them:

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