Sustainable Microenterprise and Resilient Transformation (SMART)

Terms of Reference (TOR)

for

Selection of Firm for Resource Efficient and Cleaner Production (RECP) Assessment and Capacity Building

(Package - PKSF/SMART/S-03)

September 2024

Palli Karma-Sahayak Foundation (PKSF)

Terms of Reference

Resource Efficient and Cleaner Production (RECP) Assessment and Capacity Building of the Sustainable Microenterprise and Resilient Transformation (SMART) Project

(Package No. PKSF/SMART/S-03)

1. Background Information

Microenterprises (MEs) contribute 25 percent of GDP and provide 56 percent of jobs in the country. According to Bangladesh's Economic Census, about 89 percent of the 7.8 million economic establishments in Bangladesh are microenterprises. They underpin and provide the base for key economic activities of livestock, agriculture, fisheries, food processing, garments, trade, services, and light manufacturing sectors. The growth of MEs contributes to reducing poverty and social strife in the country because they provide an empowering alternative to increased income for many individuals who otherwise would have been unemployed or lived in low-wage jobs. MEs also elevate economic growth and generate employment opportunities for many in the ME sectors and in their communities.

However, the rapid growth of MEs may lead to unsustainable use of resources and degradation of the ecosystem as they affect the environment (e.g., pollution) both directly and indirectly. Environmental externalities decrease MEs' competitiveness and the climate resilience of the entire economy. Using climate resilient resource efficient and cleaner production (RECP) practices and technologies in key economic sectors dominated by MEs, the pressure on the environment can be relieved and living standards can be improved. RECP can also accelerate green growth in Bangladesh (economic growth that is environmentally sustainable and inclusive).

Palli Karma-Sahayak Foundation (PKSF) was established by the Government of the People's Republic of Bangladesh in 1990 as an apex development organization for poverty alleviation through employment creation. PKSF launched its microenterprise program titled Agroshor in 2001 for the progressive members of its credit program. PKSF is one of the Governmental owned institutions in Bangladesh that has a successful record of working with the MEs. The World Bank has been working with PKSF for several decades to address poverty alleviation in Bangladesh. Currently, PKSF with the financial support from the World Bank and the Government of Bangladesh is implementing the Sustainable Enterprise Project (SEP) to increase the adoption of environmentally sustainable practices by targeted microenterprises.

Building on the success and learnings from the SEP, the Sustainable Micro-enterprise and Resilient Transformation project will support MEs in agribusiness, manufacturing, and service sectors. The project aims to support MEs through environment and climate-resilient RECP investments in the agribusiness, manufacturing, and service sectors to promote environment and climate-resilient RECP practices and technologies among MEs. The project is also aiming to cover MEs from all over Bangladesh with a strategic focus on those areas more environmentally critical and vulnerable to climate risks, and economic sectors and subsectors with higher environmental improvement potential. PKSF also intends to induce changes in the microfinance ecosystem, support environmentally friendly businesses through adoption of operational safety norms following different approaches including environment and climate-resilient RECP practices and technologies, decent working environment in project supported MEs. SMART will foster a green growth approach that abates environmental damage, secures new growth engines through the adoption of green practices and technologies, creates new job opportunities, and achieves harmony between the economy and environment. The total number of MEs that will be served by SMART project is around 80,000. To identify potential environmental impacts created by MEs in different business cluster and resolve those by adopting with resource efficient and cleaner production technology, PKSF is looking to hire an experienced consultancy firm to conduct a Resource Efficient and Cleaner Production (RECP) assessment and capacity building to get a better understanding of microenterprise sector and to inform SMART's project's design and implementation.

2. Objectives of the assignment

2.1 Broad Objectives

1. To conduct detailed technical assessment with a view to developing business and engineering solution for environment and climate-resilient Resource Efficient and Cleaner Production (RECP)[1] practices, provide technical assistance & capacity building of RECP for selected MEs as determined by PKSF representing samples from 21 subsectors, and capacity building of selected POs & PKSF to adopt or implement environment and climate-resilient RECP practices; and

2.2 Specific Objectives

The specific objectives of the assignment are to:

- evaluate current RECP practices of selected MEs for feasibility & operationalization and recommend business and engineering RECP solutions for sub-sectors with implementation mechanism;
- develop RECP practices for cluster level as well as for common service (Revenue and Non-revenue) facilities of selected 21 sub-sectors;
- provide technical & engineering assistance to help operationalization of RECP practices for selected ME and cluster level;
- recommend on adoption and operationalization of smart technology-based solution for automated capturing of climate-resilient RECP key performance indicators as deemed appropriate to PKSF;
- build capacity of selected microenterprises, Partner Organizations (POs), PKSF and other relevant stakeholders in validating, implementing and monitoring climate-resilient RECP practices; and
- monitoring and tracking climate-resilient RECP practices adopted by selected MEs of 21 sub-sectors.
- Assist PKSF-selected system-development firm as subject-matter specialist for the development of a centralized automated system for monitoring and tracking the RECP practices.

3.0 Scope of the environment and climate-resilient RECP work

Scope, deliverables, and specific timeline for each deliverable of RECP firm are narrated in the following table. In addition, an inception report for the entire assignment of climate-resilient RECP firm should be submitted within 01 month after signing the agreement. The timeline of deliverables will be considered from the contract signing date.

Specific Objectives	Scope
Evaluate current RECP practices of sampled MEs for feasibility & operationalization and recommend business and engineering RECP models for sub-sectors with implementation mechanism;	• Evaluate 3500 MEs to identify existing environment related issues and RECP practices and technologies (i.e., water and wastewater, air pollution, waste, and energy efficiency) under 21 sub-sectors; • Suggest business and engineering RECP models for MEs for each sub-sector with implementation mechanism; • Provide RECP profiles for each surveyed MEs under 21 sub-sectors; • Set up RECP environmental key performance indicators (KPI)[2] for 3500 individual MEs;

[1] In RECP, Resource Efficient means optimal use of energy, materials, and water while Cleaner Production means reduction of air pollution, wastewater, and waste.)

[2] Environmental Key Performance Indicators to be set for MEs, lead ME and common service facility which include six practices on resource use (energy use, materials use and water use) and pollution (air emissions, wastewater, and waste) and reference indicators such as product output.

Specific Objectives	Scope
Develop RECP practices for cluster level as well as for common service (Revenue and Non-revenue) facilities of selected 21 sub-sectors;	• Suggest RECP practices for cluster level and business & engineering models for common service (revenue and non-revenue generating) facilities with implementation mechanism;
Provide technical & engineering assistance to help operationalization of RECP practices at ME and cluster level	• Provide engineering assistance to initiate RECP practices at ME level and cluster level • Provide technical assistance to operationalize RECP practices at ME level and cluster level (as required)
Recommend on adoption of smart technology-based solution for automated capturing of climate-resilient RECP key performance indicators	• Recommend smart technology-based solution with adaptation mechanism for MEs, cluster level and common service facilities; • Provide assistance to set up and operationalize smart technology-based solution and capturing data for MEs and cluster level; • Oversee functionality of smart technology-based solution and technologies and validate data accuracy; • Contact with the service providers for ensuring uninterrupted data capturing of smart technology-based devises.
Build capacity of targeted microenterprises, Partner Organizations (POs), PKSF in validating, implementing and monitoring environment and climate-resilient RECP practices.	• Prepare training modules (one for MEs, one for PKSF & POs) and prepare one digital environment and climate-resilient RECP training module for MEs; • Provide ToTs for the relevant staffs or officials of PKSF and POs to understanding, implementing, validating and monitoring environment and climate-resilient RECP practices and technologies. • Prepare implementation guideline, brochure, handouts, SOP (Standard Operational Procedures) and relevant IEC (Information, Education and Communication) materials for MEs, cluster level and common service facilities to implement RECP practices successfully. • Provide a list of potential experts at the regional level to enhance communities of practices.
Monitoring and tracking environment and climate-resilient RECP practices adopted by MEs of 21 sub-sectors.	• Supervise and monitoring RECP practices of 3500 MEs, cluster level and common service facilities; • Track adopted RECP practices are in place by the MEs, cluster level and common service facilities; • Provide support to POs project staff to track RECP practices of targeted MEs.

3.1 Deliverables for consultancy firm for environment and climate-resilient RECP assessment:

Deliverable 1: Inception report (Lump Sum or Deliverable Based)

The inception repot will include context, understanding the assignment, methodology for RECP assessment, Detail work plan (Gantt chart), Structure of the Report, assessment Tools and submitted within 01 month from the date of contract signing

Deliverable 2: Draft RECP assessment report (Lump Sum or Deliverable Based)

The draft report will comprise of existing condition of environment and climate-resilient RECP practices under 21 sub-sectors (List attached); suggest a list of sub-sector specific ME friendly and ideal RECP practices (business and engineering models) to be implemented for MEs, cluster level and common service facilities. The business and engineering models should comprise of detailed design, installation mechanism, sourcing

information and cost estimation/budget for suggested environment and climate resilient RECP practices suitable for MEs, cluster level and common service facilities.

Prepare sub-sector specific model environment and climate-resilient RECP profile formats for 21 sub-sectors. Draft report to be submitted within 04 months from the contract signing. A presentation on draft report will be made within 15 days of draft report submission.

Deliverable 3: Final RECP assessment report (Lump Sum or Deliverable Based)

The firm will incorporate the feedbacks provided by PKSF on the draft report. Final report is to be submitted within 15 days after getting feedback on the draft report from PKSF. Final report is to be submitted within 06 months from the contract signing.

Deliverable 4: Develop RECP practices Training Manual (Lump Sum or Deliverable Based)

Prepare sub-sector specific RECP implementation guideline which includes brochure, handouts, SOPs and relevant IEC (Information, Education and Communication) materials. Prepare sub-sector specific training modules (one for MEs, one for PKSF & POs) and prepare one digital RECP training module for MEs. Training modules should be submitted to the PKSF within 180 days from the contract signed.

Deliverables 5: Capacity Building - Provide TOTs for PKSF and PO for RECP implementation (Lump-Sum or Deliverable Based)

A total 18 ToTs will be provided (3 batches ToT for PKSF, duration: 3 days and Participant per batch: 25). Besides, 15 batches TOTs for POs (Duration: 3 days and Participant per batch: 25). In addition, 15 batches refresher ToT for POs (Duration: 1 day and participant per batch: 25).

TOTs should be conducted 12 batches within 04 months upon approval of training manuals. And another 6 batches will be conducted within 15-17 months from the contract signing. Refresher's trainings (15 batches for POs) will be provided as per discussion with PKSF. The firm will submit the TOTs completion report to PKSF within 18 months from contract signing.

Deliverables 6: Prepare Guidelines, Brochures, Handouts, SOP and IEC (Lump-Sum or Deliverable Based)

Prepare implementation guideline, brochure, handouts, SOP (Standard Operational Procedures) and relevant IEC (Information, Education and Communication) materials for MEs, cluster level and common service facilities to implement RECP practices successfully.

Deliverable 7: Conduct RECP knowledge dissemination workshops (Lump Sum or Deliverable Based)

Four regional RECP knowledge dissemination workshops will be conducted within 12 months from the contract signed. Workshop completion minutes are to be submitted to PKSF.

Deliverable 8: Providing technical and engineering support to validate RECP practices of the 10 subsectors (Lump Sum or Deliverable Based)

Technical and engineering support need to be provided to validate RECP practices of the 10 subsectors from 5th to 10th month period from contract signing. Task completion report is to be submitted to PKSF within 11 months from contract signing.

Deliverable 9: Providing technical and engineering support to validate RECP practices of the remaining 11 subsectors (Lump Sum or Deliverable Based)

Technical and engineering support need to be provided to validate RECP practices of the remaining 11 subsectors from 11th to 14th month period from contract signing. Task completion report is to be submitted to PKSF within 15 months from contract signing.

Deliverable 10: Monitoring and tracking of the adoption of climate resilient RECP practices (*Time-Based*)

Supervise & monitoring and help POs & MEs to track the functionality of RECP practices and validate data accuracy and support POs project staff to track RECP practices. Bi-monthly (in every two months) monitoring report needs to be submitted to PKSF. The monitoring period will continue for 24 months in two phases (i.e. each phase will be of 12 months) starting from the 15th month of the contract signing.

3.2 Method of Selection and Duration of the assignment:

A firm or Joint Venture (JV) will be selected for the assignment following the Quality and Cost-Based Selection (QCBS) method as per the World Bank Procurement Regulations. The assignment is expected to be completed within 38 (thirty-eight) months from the date of contract signing.

4.0 Consulting Firm's Requirements:

The firm should have:

4.1 Overall ten (10) years of demonstrated work experience at national or international level

4.2 Experience in performing at least 01 (one) similar assignment (e.g. GIZ PURE, IFC PACT etc.) within last 10 years in national or international level. Experiences of assignment in any of the areas i.e. optimal use of material, water, and energy and reduction of waste, waste water, and air pollution will be considered as similar assignment.

4.3 Experience in carrying-out RECP related capacity building and information dissemination assignments (nos.) will be added advantage

4.4 Implementing RECP projects or programs in manufacturing, agriculture sectors will be added values

4.5 Experience of performing similar assignments (RECP assessment, RECP implementation, RECP related capacity building etc.) under the World Bank/ UN funded projects will be added advantage

4.6 valid Trade License, TIN, and VAT Certificate

4.7 strong financial capability to carry out such assignment

4.8 availability of assignment related professional skills among staff and availability of necessary logistics (e.g. vehicles, RECP assessing and monitoring equipment, office equipment etc.)

5.0 Requirements of the Team

The environment and climate resilient RECP assessment firm should have a team of at least 13 key experts in different roles to conduct the environment and climate-resilient RECP assessment and Capacity Building assignment. A list of the experts (with their CVs) who will oversee the survey should be attached to the proposal at the RFP stage. A list of previous clients, with their references, should also be included in the proposal.

The Firm's team should include a Team Leader who will be the environment and RECP specialist (national/international) and will lead the whole assignment. There will be one Deputy Team Leader. Besides, one economist, two water and waste-water engineers, two waste management engineers, two energy engineers, one air quality monitoring expert, three sectoral experts (one manufacturing sector, one agri-business sector, and one food-processing sector), 09 RECP officers from diverse sector (Energy Efficiency/Water/Chemical/Waste/Air Pollution). The firm may hire more experts for the fulfilment of the assignment successfully. **Notably, inclusion of national consultants/experts among the proposed key-expert positions will carry additional merit points in time of proposal evaluation.** The shortlisted firms will have to propose their teams accordingly in the RFP stage.

Key Experts: (The experts should have the following qualifications)

5.1 Team Leader/ RECP Expert: (1 person for 14 MM - intermittent) *(MM= Man-Months)

Education:

a) B.Sc. degree in Mechanical/ Industrial/ Chemical/ Energy/ Hydrology/ Environmental Engineering/ Environmental Resources Management from a reputed university. Having M.Sc. or PhD in the above-mentioned fields will get preference.

Experience:

a) 10 (ten) years of working experience in RECP such as in the field of energy, water and wastewater, waste, air pollution/air quality management related projects.
b) Should have experience as a team leader in 03 empirical assessments.
c) Experience of implementing 02 similar projects/assignments will get preference.
d) Having publications in peer reviewed journals will get preference.
e) Experience of working with international development organizations will get preference.

5.2 Deputy Team Leader/ Project Manager (1 person for 38 MM - fulltime)

Education:

a) B.Sc. degree in Mechanical/ Industrial/ Chemical/ Energy/ Hydrology/ Environmental Engineering/ Environmental Resources Management from a reputed university. Having M.Sc. or PhD in the above-mentioned fields will get preference.

Experience:

a) 07 years of working experience in RECP such as in the field of energy, water and wastewater, waste, air pollution environment related projects.
b) Should have experience as a team member in atleast 02 assessments/studies in the similar field.
c) Having publications in reputed/peer reviewed journals will get preference.
d) Experience of working with international development organizations will be added value

5.3 Economist (1 person for 6 MM - intermittent)

Education:

a) M.Sc. degree in Economics/ Econometrics from a reputed university. PhD will get preference.

Experience:

a) 07 years of working experience in the field of economics/ economic analysis
b) Implementation of similar project/assignment will get preference.
c) Experience of working with international development organizations will get preference.

5.4 Water and Wastewater Management Expert (Total 02 people: 1 person for 6 MM and 1 person for 23 MM - intermittent)

Education:

a) B.Sc. degree in Civil/Hydrology/Environmental Engineering from a reputed university. M.Sc. and PhD will get preference.

Experience:

a) 07 years of working experience in implementing different type of water management, wastewater treatment, water saving, reuse and recycle assignments.
b) Experience of working with international development organizations will be added value.

5.5 Waste Management Expert (Total 02 people: 1 person for 6 MM and 1 person for 23 MM - intermittent)

Education:

a) B.Sc. in Civil Engineering or M. Sc. degree in Environmental Engineering/Environmental Science/ Soil Science from a reputed national or international university. M.Sc. and PhD will get preference

Experience:

a) 07 years working experience in the field of waste management.
b) Experience of working with international development organizations will be added value.

5.6 Energy Efficiency Expert (Total 02 people: 1 person for 6 MM and 1 person for 23 MM - intermittent)

Education:

a) B.Sc. in Electrical Engineering or Mechanical Engineering or M.Sc. degree in Environmental Engineering from a reputed university.

Experience:

a) 07 years' working experience in the field of energy/ energy efficiency.
b) Experience of working with international development organizations will be added value.

5.7 Air Quality Monitoring Expert (1 person for 8 MM - intermittent)

Education:

a) B.Sc. in Civil Engineering or Mechanical Engineering or M. Sc. degree in Environmental Engineering from a reputed university.

Experience:

a) 07 years' working experience in the field of Air Quality Monitoring.
b) Experience of working with international development organizations will be added value.

5.8 Sectoral Expert (Manufacturing) (1 person for 11 MM - intermittent)

Education:

a) B.Sc. in Mechanical/ IPE/ relevant subject from any reputed university

Experience:

a) 07 years' working experience in the field of manufacturing sector
b) Experience of working with international development organizations will be added value.

5.9 Sectoral Expert (Agribusiness) (1 person for 9 MM - intermittent)

Education:

a) M.Sc. in Agriculture/Agribusiness/Agri-engineering/Agro-technology from any reputed university.

Experience:

a) 07 years' working experience in the field of agri-business.
b) Experience of working with international development organizations will be added value.

5.10 Sectoral Expert (Food Processing) (1 person for 7 MM – intermittent)

Education:

a) M.Sc. in Food engineering/ Food technology from any reputed university.

Experience:

a) 07 years' working experience in the field of food processing.
b) Experience of working with international development organizations will be added value.

Non-Key Experts:

RECP Officer (Energy Efficiency/Water/Chemical/Waste/Air Pollution) (9 people for 24 MM each)

Education:

a) Atleast B.Sc. in Electrical/ Mechanical Engineering/ Hydrology/Civil/ or MSc. in Environmental Science and Engineering from a reputed university.

Experience:

a) Minimum 05 years' working experience in implementing different type of projects in relevant sector.

Key Responsibility of RECP Officers are:

- Support MEs to track RECP practices and KPIs;
- Supervise and Monitor functionality of RECP practices at ME level;
- Track environmental KPIs goals/targets are achieved.

6.0 Environmental and climate resilient RECP Assessment sectors:

Sample size for assessment = 3500
RECP practices validation and tracking = 3500

7.0 Business areas, sectors and sub-Sectors for the RECP assessment

List of Sub-sector Distribution of MEs to be implemented RECP practices by sub-sectors

#	Business area	Sector	Subsectors
1	Agriculture	Horticulture	High-value crops (vegetables, fruits, tea, and so forth)
2		Livestock	Cattle & buffalo
3			Poultry
4		Aquaculture	Pisciculture
5	Manufacturing and processing	Footwear & leather products	Leather products
6		Mini textile	Mini garments
7			Loom
8			High value-handicrafts rural area
9		Light engineering	Machinery & equipment
10			Eco-friendly construction materials
11			Metal products (imitation, metallic, steel)
12		Plastic recycling	Plastic recycles
13		Food processing	Salt processing
14			Dry fish processing and trade
15			Rice mill
16			Jaggery processing
17	Service	Service	Eco-friendly tourism development
18			New logistics, packaging, transportation including courier service, IT services
19			Existing and new waste-management services
20			Restaurants, street and bakery food
21			Automobile workshop

Note: To cover the geographical location, the sample size (3500) for the sectors will equally be allocated to each sub-sector, and subsequent district.

8.0 Deliverables and Payment

Sl.	Deliverables	Allocated Time	Payment (%) *
1.	Inception Report	01 month from contract signing	10%
2.	Draft RECP assessment Report	04 months from contract signing	20%
3.	Final RECP assessment report (*No further payment will be processed until the final RECP assessment report is submitted*)	06 months from contract signing	-
4.	RECP practices Training Manual	06 months from contract signing	5%
5.	Completion report on providing TOTs for PKSF and PO for RECP complementation	18 months from contract signing	15%
6.	Guidelines, Brochures, Handouts, SOP and IEC	16 months from contract signing	
7.	RECP knowledge dissemination workshop	12 months from contract signing	
8.	Task Completion report on providing technical and engineering support to validate RECP practices of 10 subsectors from 5th to 10th month	within 11 months from contract signing	15%
9.	Task completion report on providing technical and engineering support to validate RECP practice of the remaining 11 subsectors from 11th to 14th month	within 15 months from contract signing	15%
10.	Monitoring and tracking of environment and climate resilient RECP (***Time-based contract modality***)	**Phase-1**: for 12 months period starting from the 15th month of contract signing **Phase-2**: for 12 months period after completion of the Phase-1 monitoring and tracking	Upon completion of Phase-1: 10% Upon completion of Phase-2: 10%

* All the payments will be made upon submission of the deliverable by the firm and acceptance by PKSF

Tentative Time Allocation and Key Deliverables

Key Deliverable	Months																										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	-------38				
Inception Report (D-1)																											
Draft RECP assessment Report (D-2)																											
Final RECP assessment report (D-3)																											
RECP practices Training Manual (D-4)																											
TOTs for PKSF and PO for RECP implementation (18 batches TOT, 15 batches refresher TOT) (D-5)																											
Preparing Guidelines, Brochures, Handouts, SOP and IEC (D-6)																											
RECP knowledge dissemination workshop (04 regional workshops) (D-7)																											
Providing technical and engineering support to validate RECP practices of 10 subsectors from 5th to 10th month (D-8)											Report submission																
providing technical and engineering support to validate RECP practice of the remaining 11 subsectors from 11th to 14th month (D-9)															Report submission												
Monitoring and tracking of environment and climate resilient RECP (D-10)															For 24 months (Bi-monthly monitoring progress report to be submitted)												