Terms of Reference (ToR)

Performance and Cost-Benefit Analysis of Piloted Sustainable Waste Management Business Models

Project Title: PlasticSmart Cambodia: Business Cases and Practices to Mitigate Plastic Waste and Pollution for a Sustainable Future

Context and Background

CARE International is a globally recognized development organization dedicated to alleviating poverty and fostering sustainable development through strategic partnerships and evidence-based interventions. Since 1973, CARE Cambodia has implemented diverse initiatives aimed at empowering marginalized and vulnerable communities, with a particular emphasis on gender equity and environmental sustainability.

Cambodia faces significant environmental challenges related to plastic waste and packaging, particularly in industrial zones where food vendors around garment factories generate substantial amounts of non-sustainable plastic packaging waste. The widespread use of single-use plastics in food packaging contributes to greenhouse gas emissions, environmental pollution, and public health risks.

The PlasticSmart Cambodia project, implemented by CARE Cambodia in partnership with CARE Austria, Youth Council of Cambodia (YCC) and Independent Democracy of Informal Economy Association (IDEA), and funded by the European Union and Austrian Development Agency, aims to reduce pollution and greenhouse gas emissions by promoting sustainable packaging and waste management practices.

Under Output 2 of the project, sustainable waste management business models have been developed and will be implemented through pilot testing involving waste management companies, waste depots, plastic recycling enterprises, and informal waste collectors (edjai). After implementation, these business models require comprehensive performance assessment to evaluate their effectiveness, sustainability, and potential for scaling.

This performance and cost-benefit analysis will provide critical evidence on the viability of the piloted business models, inform project fine-tuning, and generate insights for scaling successful approaches under Outputs 3 and 4.

Purpose and Objectives

Primary Objective:
To conduct a comprehensive performance and cost-benefit analysis of sustainable waste management business models piloted under the PlasticSmart Cambodia project.

Specific Objectives:

1. Assess financial and non-financial benefits of implementing new waste management business models
2. Evaluate customer and stakeholder perceptions of the business model transitions
3. Identify barriers and enablers for business model expansion
4. Analyze cost-effectiveness and return on investment of the piloted models
5. Document best practices and lessons learned from implementation
6. Provide recommendations for business model refinement and scaling
7. Generate evidence for advocacy, resource mobilization activities, and potential green finance positioning
8. Prepare compelling impact stories for broader dissemination

Scope of Work

Geographic Focus: Areas around selected garment factories in Kandal, Kampong Chhnang, and Kampong Cham provinces where waste management and segregation business models have been piloted.

Target Stakeholders:

- Waste management companies
- Waste operators and owners
- Plastic recycling depots and enterprises
- Informal waste collectors (edjai)
- Customers and communities served by improved waste services
- Factory management and workers
- Local government authorities
- Line Ministries such as Ministry of Environment (MoE), Ministry of Labor and Vocational Training (MLVT), etc

Business Models in Scope: All sustainable waste management business models developed under A.2.1 and piloted under A.2.3, including improved collection systems, enhanced sorting practices, edjai integration models, and recycling value chain improvements.

Key Research Questions

Component 1: Pilot Evaluation

1. What are the financial benefits (revenue, cost savings, profitability) from implementing the new business models?
2. What non-financial benefits (efficiency, customer satisfaction, environmental impact) have been achieved?
3. How do different stakeholders (customers, workers, management, communities) perceive the business model changes?
4. What are the main barriers to expanding these business models to other areas or actors?
5. What enablers and success factors have facilitated effective implementation?
6. How cost-effective are the new models compared to previous practices?
7. What specific changes or improvements are needed to increase model effectiveness?

8. Have the new waste management business models reduced gender-based barriers for women — particularly female edjai and depot workers — in accessing business opportunities, income, and decision-making?

Component 2: Feasibility of Scaling the Refined Business Models

9. Which business model elements are most suitable for replication and scaling?
10. How could the current waste managment models scale up across geographical areas and scale out value-chain?
11. *What market opportunities and revenue potential exist for scaling the piloted models, and what are the financial implications for actors across the recycling value chain?*
12. *How can the refined business models be positioned to attract green finance and private investment, including alignment with international climate finance mechanisms (such as e.g EFSD+ and GCF)?*

Methodology

The consultant will employ a mixed-methods approach combining quantitative financial and operational analysis with qualitative stakeholder insights through participatory workshops, surveys, interviews, and focus group discussions on approximately 300 participants.

Data Collection Methods

Participatory Workshops:

- Business performance review workshops with 4 stakeholder groups
- 10-15 participants per workshop including waste company managers, depot owners, edjai representatives
- Structured discussions on financial performance, operational improvements, and challenges
- Group analysis of business records, cost-benefit data, and performance indicators

Waste Management Chain & Financial Modelling:

- Financial data review
    - business records, sales data, revenue streams, and cost structures
    - Comparison of pre- and post-implementation financial indicators
- Cost-benefit calculations including investment costs and operational savings
- Return on investment (ROI) analysis for different business model components

Financial projection for business model and potential scale up
Recycling value chain projection for scale out

Operational Performance Analysis

- Surveys on collection rates, processing volumes, and operational efficiency
- Services quality: coverage, timeliness, and reliability
- Resource utilization: labor hours, equipment usage, etc

- New business opportunities or value-added services/products emergence and implication (e.g: new actor, product/service emerge, market linkages, revenue stream expand, entrepreneurship opportunities, etc)

Stakeholder Interviews (15-20):
- Key informant interviews with waste management company owners/managers
- In-depth interviews with edjai on income and working condition changes
- Interviews with customers (factories, communities) on service quality perceptions
- Discussions with government officials on policy and regulatory perspectives

Customer Satisfaction Assessment:
- Embed Human-Centered Design (HCD) to understand pain points, co-create/refine solutions, and capture unmet needs.
- Focus group discussions with factory workers and community members
- Survey questionnaire on service quality, reliability, and satisfaction levels
- Assessment of willingness to pay for improved waste services
- Documentation of customer feedback and suggestions

Analytical Framework

Financial Analysis:
- Revenue growth and diversification assessment: assess changes and identify new revenue streams
- Cost reduction analysis: evaluate operational cost savings and and their financial impact on business model viability
- Profitability and cash flow evaluation: analyze net profit, liquidity, and financial sustainability of the refined models
- Investment payback period and breakeven calculations
- Cost-effectiveness ratios (cost per ton collected, processed, recycled, etc.) to assess value for money
- Cost and benefit distribution analysis: assess how financial gains and costs are distributed across actors in the waste management chain, disaggregated by actor type and gender

Business Model Performance or Operational Evaluation:
- Operational efficiency improvements: collection rates, processing volumes and resource utilization (labor hours, equipment usage)
- Service quality enhancements: reliability, coverage, timeliness, customer satisfaction)
- Environmental performance improvements: recycling rates, waste diversion
- Social impact assessment: job creation, income improvements, working conditions; disaggregated by gender
- Emergence of new business opportunities and value-added services, including new market linkages, revenue streams, and entrepreneurship opportunities

Barrier and Enabler Analysis:
- Internal factors (management capacity, technical skills, equipment)
- External factors (market conditions, regulatory environment, customer demand)
- Stakeholder relationship dynamics (formal-informal sector integration)

- Scaling potential and replication requirements

Comparative Analysis:
- Performance comparison across different target areas
- Comparison between different business model approaches
- Before-and-after analysis of key performance indicators
- Best practice identification and documentation

Temporal Scope, Implementation & Timeline

- Three intervention periods over 14 months
  - Preparation for implementation of the models
  - Mid-term monitoring
  - End-term assessment and final report

Implementation stages	Activities	Timeline
Preparation	- Literature review, methodology finalization, definition of financial performance data collection tools, training sessions with stakeholders and/or project team on data collection - Inception report	Month 1-3
Mid-term monitoring	- Simplified data collection - Monitoring & Recommendation report	Month 6-8
End-term assessment	- Final measurements, comprehensive data collection and evaluation - Business Performance Analysis Report - Present findings to stakeholders for feedback and validations - Case Study - Impact story	Month 12-14

Deliverables

1. Inception Report
- Detailed methodology and approach
- Data collection tools (workshop guides, interview protocols, survey questionnaires, self-reporting tools)
- Stakeholder engagement plan
- Work plan and timeline

2. Mid-term Monitoring & Recommendation Report (15 pages max.)
- Financial performance analysis with key indicators and comparisons – preliminary results
- Simplified stakeholder perception assessment
- Simplified barrier and enabler analysis

- Recommendations for pilot implementation and data collection

3. Business Performance Analysis Report (30 pages max.)
- Executive Summary (max. 2 pages)
- Methodology and approach
- Financial performance analysis with key indicators and comparisons
- Stakeholder perception assessment
- Barrier and enabler analysis
- Business model effectiveness evaluation
- Recommendations for model refinement and scaling
- Lessons learned and best practices documentation

Annexes:
- Workshop proceedings and participant lists
- Financial data summaries and calculations
- Interview transcripts and survey results
- Stakeholder feedback compilation

4. Impact Story
A compelling 2-3 page narrative document highlighting:
- Success stories from business model implementation
- Personal testimonials from edjai, managers, and customers
- Visual documentation (photos, infographics) of improvements
- Quantified impacts and achievements
- Suitable for public dissemination and advocacy purposes

5. Case Study and Investment Pitch
A short 5-7 page case study and a 10 page pitch deck, targeting policy makers and investers which synthesize:
- project information
- Refined Business models
- evidence of results
- Scalability and potential for expansion
- Environmental and socio-economic benefits
- Financing needs and opportunities

6. Data Package
- Anonymized workshop notes and interview transcripts
- Financial data sets and analysis files
- Survey response data
- Stakeholder contact information and engagement records

Note: All deliverables will be submitted in editable format (English) with Khmer translations of key summary materials for local stakeholder use.

Research Management

Supervision: CARE Cambodia's Project Team in coordination with IDEA and YCC

Stakeholder Coordination: Close collaboration with waste management partners and edjai representatives
Ethics: Adherence to business confidentiality agreements and CARE's data protection standards

Consultant Requirements

Essential Qualifications:

- Advanced degree in business administration, economics, environmental management, or related field
- Minimum 5 years of experience in business model analysis and performance evaluation
- Proven expertise in cost-benefit analysis and financial performance assessment
- Experience with participatory research methods and stakeholder engagement
- Strong facilitation and workshop management skills
- Fluency in English (mandatory); proficiency in Khmer (preferred)

Preferred Experience:

- Previous work in Cambodia or similar Southeast Asian contexts
- Experience with waste management sector and circular economy business models
- Knowledge of informal economy and MSME development
- Familiarity with social enterprise and sustainable business model evaluation
- Experience working with development projects and donor requirements

Technical Qualifications:

- Proficiency in financial analysis software and statistical tools
- Experience with qualitative data analysis methods
- Strong presentation and communication skills
- Ability to work with diverse stakeholders including informal sector actors

Submission Requirements

Technical Proposal:

- Detailed methodology for business performance analysis
- Approach to stakeholder engagement and data collection
- Workshop facilitation strategy
- Data analysis framework
- Team composition with detailed CVs
- Examples of similar business model assessments

Financial Proposal:

- Daily rates for team members
- Workshop and travel costs
- All-inclusive pricing with detailed breakdown

Evaluation Criteria

- Technical approach and methodology (40%)
- Relevant experience and expertise (30%)
- Cost-effectiveness (20%)
- Team qualifications and capabilities (10%)

Submission Deadline: 31 March 2026
Submit to: KHM.Procurement@care.org

Annexes

Annex 1: Project Logical Framework
Annex 2: Ethical Guidelines for Research
Annex 3: CARE Data Protection & Safeguarding Policies

Annexes

Annex 1: Project Logical Framework *(in attachment)*
Annex 2: Ethical Guidelines for Research

- CARE requires that the datasets that are compiled or used in the process of external evaluation are submitted to CARE when the evaluation is completed.
- Data must be disaggregated by gender, age and other relevant diversity, in line with the project's Theory of Change.
- Datasets must be anonymized with all identifying information removed. Each individual or household should be assigned a unique identifier. Datasets which have been anonymized will be accompanied by a password protected identifier key document to ensure that we are able to return to households or individuals for follow up. Stakeholders with access to this document will be limited and defined in collaboration with CARE during evaluation inception.
- In the case of textual variables, textual datasets or transcripts please ensure that the data is suitable for dissemination with no de-anonymizing information unless these are case studies designed for external communication and suitable permission has been granted from the person who provided the data. In these circumstances, please submit, with the case study, a record of the permission granted, for example a release form.1
- Where there are multiple datasets (for example both tabular and textual datasets) identifiers must be consistent to ensure that cases can be traced across data lines and forms.
- CARE must be provided with a final template of any surveys, interview guides, or other materials used during data collection. Questions within surveys should be assigned numbers and these should be consistent with variable labelling within final datasets.
- Formats for transcripts (for example: summary; notes and quotes; or full transcript) should be defined in collaboration between CARE and the external evaluator at the evaluation inception
- In the case of tabular datasets variable names and variable labels should be clear and indicative of the data that sits under them. Additionally, the labelling convention must be internally consistent and a full codebook/data dictionary must be provided.
- All temporary or dummy variables created for the purposes of analysis must be removed from the dataset before submission. All output files including calculations, and formulae used in analysis will be provided along with any Syntax developed for the purposes of cleaning.
- We require that datasets are submitted in one of our acceptable format types.
- CARE must be informed of and approve the intended format to be delivered at evaluation inception phase. Should this need to be altered during the project CARE will be notified and approval will be needed for the new format.

Annex 3: CARE Data Protection & Safeguarding Policies *(will be shared after selection)*