



MOF/PEMSEA ODA Project on Reducing Marine Plastics in the East Asian Sea Region

Invitation to Bid

Preliminary Site Assessment and Conceptual Design of Material Recovery Facilities (MRFs) in Timor-Leste

Bid Reference No.: [PRF/ODA/2026/005]

Date of Issue: 27 July 2026

Assignment Title

Preliminary Site Assessment, Conceptual SketchUp Design and Rough Construction Cost Estimation for Material Recovery Facilities in Liquica, Manatuto and Atauro

Background

The Timor-Leste Pilot Project on Enhancing Marine Plastics Collection, Segregation and Recycling plans to establish Material Recovery Facilities, or MRFs, in Liquica, Manatuto and Atauro. The proposed MRFs will be used for receiving, sorting, temporarily storing and consolidating plastic waste and other recyclable materials collected from selected demonstration sucos.

At this stage, the project requires only preliminary designs and rough construction cost estimates to support pilot project planning and budget preparation. Detailed engineering designs, structural calculations and construction drawings will be prepared separately in 2027.

Objective

The main objective of the assignment is to prepare a reasonable preliminary estimate of the construction cost of each proposed MRF.

The assignment will also:

1. Assess whether each proposed site is generally suitable for MRF construction;
2. Prepare a simple conceptual layout and SketchUp model for each MRF;
3. Identify the main construction materials required; and
4. Prepare an indicative construction cost estimate for each MRF.

The outputs will be used only for initial planning and budgeting. They will not serve as final engineering or construction documents.

Project Sites

The assignment will cover the proposed MRF sites in:

- Liquica Municipality (approximately 400 m²);
- Manatuto Municipality (approximately 400 m²); and
- Atauro Municipality (approximately 200 m²).

The relevant municipalities will identify the proposed sites before the field visits.

Scope of Work

The service provider will complete the following tasks.

Task 1. Review Available Information

The service provider will review available information on:

- The pilot project concept;
- Proposed MRF functions;
- Estimated types and quantities of waste;
- Available site information;
- Proposed collection arrangements; and
- Basic requirements of the participating municipalities.

A brief inception meeting will be conducted with the project team before the site visits.

Task 2. Conduct Site Visits

The service provider will visit the proposed sites in Liquica, Manatuto and Atauro. The rapid site assessment will consider:

- Available land area;
- General site condition;
- Access for collection trucks;
- Ground slope and visible drainage conditions;
- Flooding or erosion risks;
- Availability of electricity and water;
- Proximity to houses and other sensitive locations;
- Space for sorting, storage and vehicle movement;
- Availability of local construction materials;
- Site preparation requirements; and
- General suitability for MRF construction.

The assessment will be based mainly on visual observation, basic measurements and consultation with municipal officials. Geotechnical investigations, soil testing and detailed engineering surveys are not required under this assignment.

Task 3. Prepare Conceptual SketchUp Designs

A simple conceptual SketchUp design will be prepared for each proposed MRF. Each design should show:

- Approximate building footprint;
- Receiving and unloading area;
- Covered sorting area;
- Storage areas for plastics and other recyclables;
- Temporary residual-waste area;
- Small office or record-keeping space, where appropriate;
- Toilet and handwashing area;
- Vehicle access;
- Fencing and gate;
- Basic drainage arrangements; and
- Three-dimensional exterior and interior views.

The designs should be practical, simple and suitable for preliminary budgeting. The conceptual design does not need to include detailed structural calculations, reinforcement details, electrical diagrams, plumbing diagrams or construction specifications.

Task 4. Prepare Preliminary Bill of Materials

The service provider will prepare a simple bill of materials for each MRF. The bill of materials should identify the main estimated quantities of:

- Concrete;
- Cement;
- Sand and gravel;
- Reinforcement steel;
- Structural framing;
- Roofing materials;
- Wall materials;
- Flooring materials;
- Doors and windows;
- Fencing and gates;
- Drainage materials;
- Basic plumbing and sanitation materials;
- Basic electrical materials;
- Painting and finishing materials; and
- Other major construction materials.

The quantities may be approximate and based on the conceptual design.

Task 5. Prepare Rough Construction Cost Estimates

A preliminary construction cost estimate will be prepared separately for each MRF. The cost estimate should include:

- Site preparation;

- Construction materials;
- Labor;
- Transport and mobilization;
- Building construction;
- Roofing;
- Flooring;
- Plumbing and sanitation;
- Basic electrical works;
- Drainage;
- Fencing and gate;
- Contractor overhead;
- Taxes, where applicable; and
- Contingency.

The service provider will prepare a consolidated cost summary for the three MRFs.

Required Outputs

The service provider will submit the following outputs.

Output 1. Brief Site Assessment Report

The report will provide, for each site:

- Site description;
- Photographs;
- Basic site measurements;
- Main constraints;
- Site preparation requirements;
- General suitability assessment; and
- Recommendations for the conceptual design.

Output 2. Conceptual SketchUp Designs

A simple design package for each MRF will include:

- Editable SketchUp file;
- Basic floor plan;
- Approximate dimensions;
- Three-dimensional views;
- Main functional areas; and
- PDF or image exports.

Output 3. Preliminary Bills of Materials

A separate preliminary bill of materials will be prepared for:

- Liquica MRF;
- Manatuto MRF; and

- Atauro MRF.

Output 4. Rough Construction Cost Estimates

A separate indicative construction cost estimate will be prepared for each MRF, together with a consolidated summary.

Assignment Duration

The assignment will be completed within **three weeks** from the issuance of the notice to proceed. The schedule may be adjusted depending on transport and weather conditions, particularly for travel to Atauro.

Required Qualifications

The assignment may be undertaken by a construction company, architectural firm, engineering firm or qualified technical consultant. The service provider should have:

- Experience in building design or construction planning;
- Experience preparing SketchUp or similar three-dimensional designs;
- Experience preparing preliminary bills of materials;
- Experience estimating construction costs;
- Knowledge of local construction materials and labor costs in Timor-Leste;
- Capacity to conduct site visits in all three municipalities; and
- Ability to complete the assignment within three weeks.

Limitation of the Assignment

The outputs under this assignment are intended only for preliminary planning and budget estimation. The assignment will not include:

- Detailed engineering designs;
- Structural calculations;
- Geotechnical or soil investigations;
- Topographic surveys;
- Detailed architectural drawings;
- Signed and sealed construction drawings;
- Electrical and plumbing engineering designs;
- Preparation of building-permit documents; or
- Construction supervision.

Detailed engineering designs and construction documents will be prepared separately in 2027 before construction begins.

Requirements for Application:

- Licensed construction company in Timor-Leste
- Submission of application:
 - letter of Intent and
 - proposed fee

Deadline for Submission: 21 August 2026, 5:00 PM (Philippine Time) Submission Address/Email: oda@pemsea.org

*Compress all bidding documents into a zipped folder

*Put "BID SUBMISSION FOR PRF/ODA/2026/005" in the subject line