



## Consultant Scope of Work

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**Project/Consultancy Title:** Plastic Upcycling Market and Economic Analysis

**Project Location(s):** Remote or in-country (Dili, Timor-Leste)

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### Background

Like many countries around the world, Timor-Leste faces the urgent challenge of finding waste management solutions for plastic. Currently, plastic is burned in trash piles, clogs critical drainage infrastructure or washes up on the country's once pristine beaches, which causes risks to human health and jeopardizes the potential of the nascent, but promising, tourism industry.

The Plastic Upcycling Alliance (PUA) initiative is a three-year program aimed to improve the natural beauty of Timor-Leste while protecting the health and safety of its people by catalyzing the creation and growth of a plastics recycling industry.

The program's goal is to support Timor-Leste on its path to 'plastic neutral' status whereby unnecessary plastic use is curtailed and replaced, and up to 20% of Dili's plastic waste is collected and recycled into locally sought-after products. The three Activity Objectives of the program are:

- (1) Reduce Plastic Use;
- (2) Increase Plastics Recycling; and
- (3) Improve Plastics Management.

Utilizing market-based solutions, the program seeks to establish a value chain for used plastic that will add to Timor-Leste's small manufacturing base, bring a measure of diversification to an oil-dependent economy, and expand valuable employment and entrepreneurship opportunities.

At its core, the program takes a market systems development approach which empowers private sector actors to invest resources into income generating opportunities around plastic waste collection, sorting, processing, and product development, marketing and sales, while simultaneously stimulating market demand for products made from recycled plastic. To achieve that, it co-finances key risk-mitigation elements and activities, such as gathering market information, research and development of new product lines and applications, and potential investment in plastics collection and processing technologies. PUA aims to create enabling conditions for private investment and enduring partnerships between public and private actors, as well as the communities they serve. Key measures of success are:

- (1) Citizens see the economic benefit of recycling plastics like the well-established waste metal market; and
- (2) The price and quality of products produced by recycled plastic are better than competing alternatives in the local market.

### Purpose

The purpose of this consultancy is to conduct research on global best practices and lessons for developing upcycled/recycled plastic product lines, and their applicability to Timor-Leste. The research will include market and economic analyses that will:



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- (a) Support the development of competitive upcycled, recycled, and non-plastic alternative materials/products;
- (b) Identify promising Timor-Leste specific investment opportunities; and
- (c) Develop evidence-informed business cases to support investment.

To develop this understanding the Consultants will complete an initial landscape analysis and literature scan, followed by the necessary market and value chain analysis. This analysis will inform prototyping and testing of product lines and shape the market strategy for materials and products under PUA. It will also support value chain actors to create and implement strategies to increase their market share with their prototyped materials and products, and support policymakers to create the enabling environment for the market to thrive. From there, the Consultants will assess investment opportunities and develop evidence-based business cases for the most promising models. This research will, among other things, inform potential subsidy or cost-share mechanisms that PUA could support to mitigate early project development risks for the private sector.

### Activities

The Consultants will complete the following activities:

#### Literature scan and landscape analysis

The consultancy will begin with a literature scan and landscape analysis. This will include reviewing relevant program documents and any relevant literature related to recycled, upcycled and non-plastic alternative products, value chains, and markets with a focus on potential applicability to Timor-Leste. This initial step will help structure the market analysis and will result in a short scoping report (no more than 4-5 pages) that justifies the formative research and identifies the opportunities to investigate further.

#### Market and value chain analysis for post-consumer plastic and recycled materials/products

The Consultants will employ market research methodologies to look closely at the opportunities identified during the scoping phase. The analysis will assist in determining global strategies, approaches, and best practices in creating a circular economy for plastics and in developing market systems for recycled, upcycled and non-plastic alternatives. The analysis will:

- Identify high-potential upcycled, recycled and non-plastic alternative material/product manufacturers, suppliers and distributors/retailers;
- Evaluate the political, economic, social, technological, logistical and legal factors influencing the sector locally;
- Map and assess the potential value chains in Timor-Leste – from waste to product – for the collection, production and distribution of upcycled, recycled, and non-plastic alternative products and materials;
- Outline upcycled, recycled, and non-plastic alternative materials and products likely to have a viable return on investment (ROI) based on the cost and value at each stage of the market system (e.g., collected plastic, sorted plastic, plastic flakes, plastic pellets, etc.).

This analysis will result in a market analysis report documenting the results of the economic research; a vision of high-potential opportunities for the market in Timor-Leste; and recommendations for strategies and activities to strengthen the market and value chains, address constraints, and maximize opportunities.

#### Investment opportunity and business case analysis

The Consultants will conduct research and analysis of potential commercial investments in the plastics recycling industry, plastic waste management services and circular economy market. This analysis will:



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- Identify promising global technologies/systems, their technical specifications and their associated financial and personnel skill requirements that have the potential for commercial replication in Timor-Leste;
- Develop simplified business models to estimate the cashflows and ROI for the opportunities that have been identified and analyze the business case to support investment;
- Outline the profile of potential investors based on the nature, size, duration and anticipated performance of the investment opportunity (e.g., small/medium/large company, non-profit/for-profit impact-investment fund, development finance institution, multilateral, foundation, etc.).

This analysis will result in a business investment report documenting the results of the financial modeling research; a series of briefs focusing on the high value investment opportunities (10 or less); and recommendations for potential investment.

### Field work and travel

Because of the COVID-19 pandemic, a State of Emergency is in effect for all of Timor-Leste. During this period, airports, ports and land borders are closed to international travelers. These measures have been enforced since April 2020 and are not expected to be lifted in the foreseeable future. It is therefore highly unlikely that the Consultants will be able to send any personnel to do field work for the purpose of this assignment. Movement restrictions permitting, Mercy Corps will work with the Consultants to facilitate the required in-country research and data collection. Should the situation evolve, Mercy Corps and the Consultants may jointly adjust their field work approach. Any related travel will be arranged separately.

### Timeframe and deliverables

The Consultants will complete the following deliverables:

#	Deliverable	Estimated level of effort	Target deadlines
1	Scoping report summarizing preliminary analysis (max. 5 pages)	4 days	Within 3 weeks of signing agreement
2	Detailed workplan for market analysis report and business investment report	1 day	Within 3 weeks of signing agreement
3	Draft market analysis report (max. 15 pages)	11-12 days	Within 7 weeks of signing agreement
4	Consultative presentation of the market and value chain analysis with the program team and relevant stakeholders	1 day	Within 8 weeks of signing agreement
5	Final market analysis report (max. 15 pages), incorporating feedback from consultation	3-4 days	Within 11 weeks of signing agreement
6	Draft business investment report (max. 30 pages)	11-12 days	Within 12 weeks of signing agreement
7	Consultative presentation of the investment and business case analysis with the program team and relevant stakeholders	1 day	Within 13 weeks of signing agreement
8	Final business investment report (max. 30 pages), incorporating feedback from consultation	3-4 days	Within 16 weeks of signing agreement



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The deliverables produced in this consultancy will be based on applicable Mercy Corps templates and styles. The simplified business models associated to high-potential investment opportunities shall be done in Excel to facilitate future cashflows and ROI calculations by potential investors.

The reports will be utilized by private sector actors, government officials, policymakers, donors, and NGOs.

### **Payment schedule**

The Consultants shall commit to an estimated 35-40 working days to complete the activities detailed in this scope of work during the months of June-September 2021. The payment schedule will be:

- Upon completion of deliverables 1-2: 25% of total consulting fee;
- Upon completion of deliverables 3-5: 25% of total consulting fee;
- Upon completion of all deliverables and acceptance of final reports: 50% of total consulting fee.

The completion of each deliverable will be based on sign-off by Mercy Corps on the quality of the deliverable.

### **The Consultants will report to**

Clement Albano, Circular Economy Manager.

### **The Consultants will work with**

Katherine Dobson, Monitoring, Evaluation, Research and Learning (MERL) Director, and the Circular Economy program team.

### **Proposal**

Interested parties are requested to provide the following information and documents:

- Company presentation, business profile or portfolio description;
- Brief concept note describing the approach, methodology and indicative work plan for performing the activities presented in this scope of work (max. 3 pages);
- Team composition and CVs of key personnel;
- Quote for the full scope of work, providing an estimated number of working days required to complete each deliverable or activity and specifying the total consulting fee covering all deliverables.

### **Required experience and skills**

Mercy Corps seeks candidates with solid plastics industry knowledge; excellent analytical and writing skills; and experience with the Asia-Pacific region (preferably Timor-Leste). Key requirements include:

- MA/S or equivalent in international development, business administration or other relevant fields;
- Demonstrable expertise in the circular economy, plastics recycling/upcycling products and markets;
- Experience in the Asia-Pacific region (knowledge of Timor-Leste and island/remote situations preferred);
- Excellent English writing and communication skills;
- Strong ability to present information logically and concisely;
- Ability to facilitate planning processes, work as part of diverse teams, drive consultation and integrate feedback.