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## 0. List of Abbreviations

<b>BEIS</b>	Department for Business, Energy and Industrial Strategy
<b>BMWK</b>	Bundesministerium für Wirtschaft und Klimaschutz
<b>CIFF</b>	Children's Investment Fund Foundation
<b>DC</b>	Development Cooperation
<b>EPR</b>	Extended Producer Responsibility
<b>EU</b>	European Union
<b>GIZ</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit
<b>MLP</b>	Multi Layered Plastic
<b>MoEFCC</b>	Ministry of Environment, Forests and Climate Change (MoEFCC)
<b>MoHUA</b>	Ministry of Housing and Urban Affairs
<b>MSW</b>	Municipal Solid Waste
<b>NAMA</b>	Nationally Appropriate Mitigation Action
<b>NSO</b>	NAMA Support Organisation
<b>NSP</b>	NAMA Support Project

<b>PIBO</b>	Producers, Importers & Brand Owners
<b>ToR</b>	Terms of Reference
<b>UK</b>	United Kingdom

## 1. General information

### 1.1. About the Project

'Waste Solutions for Circular Economy' is supported by a joint climate action program-NAMA (Nationally Appropriate Mitigation Action) Facility-set up by the German Federal Ministry for Economic Affairs and Climate Action (BMWK), Department for Business, Energy and Industrial Strategy (BEIS) of the United Kingdom (UK), European Commission (EU Commission) and the Children's Investment Fund Foundation (CIFF). This is a 5-year project which will operate in 5 lighthouse locations- Patna, Varanasi, State of Goa, Bengaluru & Tiruchirappalli with local and state governments as partners. GIZ will act as the NAMA Support Organisation (NSO) for the project and will be responsible for the delivery of funds, services, financial and administrative management of the project.

As part of the project, the GIZ India intends to hire the services from able and willing firms to act as implementation partner for study of MLP (Multi Layered Plastic) recycling in India. The project will work on ways to study the techno-market analysis for MLP recycling in India to provide inputs for developing standards/guidelines for pollution control boards, relevant government ministries and departments, private sector players, such as Producers, Importers & Brand Owners (PIBOs), recyclers as well as informal waste workers. The project supports multiple activities relating to MLP waste management.

### 1.2. Context

According to 2016 plastic waste management rules, MLP (Multi Layered Plastic) is defined as:

Any material used or to be used for packaging and having at least one layer of plastic as the main ingredient in combination with one or more layers of material such as paper, paperboard, polymeric material, metalized layers, or aluminum foil, either in the form of laminate or co-extruded structure.

The idea of MLPs was first introduced in the draft Plastic (Manufacture, Usage, and Waste Management) Rules, 2009, wherein clause 5(f) spoke about restricting the use of MLPs that fall under non-recyclable plastic. MLPs were re-attempted to describe through the Plastic Waste Management Rules, 2016, wherein clause 9(3) advocated phasing out all multi-layered plastics used for packaging in two years. This was again rendered by the Plastic Waste Amendment Rules, 2018, by adding the phrases "non-energy recoverable" and "alternate use" alongside "non-recyclable". The draft Plastic Waste Management Notification, 2021, issued by the Union Ministry of Environment, Forests and Climate Change (MoEFCC) on March 11, does have not much emphasis to address the issue.

It needs to be understood that recycling is different from energy recovery (incineration, co-processing, and waste-to-energy) and alternate use (roadmaking), with recycling being the best option. There are a number of challenges that must be addressed when recycling multi-layered plastic products. The most significant challenge is that the layers of plastic can often be difficult to separate. Recycling multi-layered plastic products can be a complex task, but there are many solutions and opportunities to recycle these materials. With the rise of multi-

layered recyclable material, however, businesses are finding new and inventive ways to break down their waste and turn it into resources that can be reused again and again. In an effort to reduce environmental impact and be more environmentally friendly and In order to promote the recycling of MLP on a large scale, the market needs strict legislation, appropriate technology, government support and subsidies, Zero custom duty on the import of MLP recycling machinery and technology, Compulsory economic support through EPR (Extended Producer Responsibility) and decentralized waste systems to ensure the collection and transportation of MLP waste from areas of waste generation to the recyclers. As part of this assignment, the consultant needs to conduct a study the techno-market analysis for MLP (Multi Layered Plastic) recycling in India to provide inputs for developing standards/guidelines.

## **2. Tasks to be performed by the contractor**

The contractor shall provide the following work/services under various work packages to achieve the overall objective of the project:

### **2.1. Work Package 1: Analysis of the current landscape system of MLP (Multi Layered Plastic) recycling in India. The study should include the existing technology, market players, government guidelines, and current & best practices.**

This should include the following activities but should not be limited to the following:

- i. Conduct thorough research on current practices & business models for MLP (Multi Layered Plastic) recycling in India.
- ii. The agency should interview 10 PIBOs (Producers, Importers and Brand Owners) to understand their efforts to implement MLP recycling, business models, technologies deployed and challenges.
- iii. The agency shall analyse the guidelines, framework, and policies to mark MLP waste management development.
- iv. The agency should visit at least 10 MLP recycling units of different scale and type of technology; and collect information about techno-commercial aspects of the recycling solutions.
- v. The agency should interview aggregators of MLP waste in all major cities (with more than 1 million population).

### **2.2. Work Package 2: Gap Assessment of the currently available technologies and future requirements and analysis of the financial modelling of the MLP (Multi Layered Plastic) recycling facility.**

This should include the following activities but should not be limited to the following:

- i. The consultant shall analyse the financial mechanisms of MLP business models to understand the market viability to develop standards/benchmarks with other industry partners.
- ii. The consultant shall review available technologies to understand their level of maturity/ commercialisation, suitability and applicability in the Indian context.
- iii. The consultant will provide inputs on what kind of technology and supportive business models are required to bridge the gap identified between the government and other market players.

### **2.3. Work Package 3: Inputs for developing standards/guidelines for setting up MLP (Multi Layered Plastic) recycling practices sustainably.**

This should include the following activities but should not be limited to the following:

- i. Based on the result driven through work packages 1 & 2, the consultant shall provide the inputs for developing standards/guidelines for setting up MLP (Multi Layered Plastic) recycling practices physically and economically sustainable.
- ii. Consultant to provide inputs for developing MLP recycling guidelines which should cover but not be limited to the following aspects- screening, material separation, phases of processing, safety and environment regulations, etc.

#### **2.4 Work Package 4: Recommendations & suggestions for policymakers, practitioners, and other stakeholders at local, state, and national levels to promote and practice MLP (Multi Layered Plastic) recycling.**

This should include the following activities but should not be limited to the following:

- i. Give recommendations & suggestions to all stakeholders to make MPL waste management practices more practical and economically viable.
- ii. Introduce a buy-back scheme of MLP recycled materials, taking examples from best practices from around the world.

**Note:** Identification of suitable mechanism selection in consultation with GIZ officials. Final report will finalised based on comments and suggestions by GIZ India.

#### **2.4. Milestones/Deliverables**

Certain milestones, as laid out in the table below, are to be achieved by the service provider during the contract term:

Milestone/Deliverable	Deadline
<b>Work Package 1: Analysis of the current landscape system of MLP (Multi Layered Plastic) recycling in India. The study should include the existing technology, market players, government guidelines, and current &amp; best practices</b>	
• Inception meeting	24 <sup>h</sup> July 2023
• Inception report	31 <sup>st</sup> July 2023
• Draft Analysis Report Submission	28 <sup>th</sup> August 2023
• Review meeting with GIZ officials	11 <sup>th</sup> September 2023
<b>Work Package 2: Gap Assessment of the currently available technologies and future requirements and analysis of the financial modeling of the MLP (Multi Layered Plastic) recycling facility</b>	
• Draft Gap Assessment Report	30 <sup>th</sup> October 2023
• Review meeting with GIZ officials to finalize the analysis & gap assessment report.	6 <sup>th</sup> November 2023
<b>Work Package 3: Inputs for developing standards/guidelines for setting up MLP (Multi Layered Plastic) recycling practices sustainably</b>	
• Draft Standard/Guideline input submission	27 <sup>th</sup> November 2023
• Review meeting and finalization of inputs	11 <sup>th</sup> December 2023

<b>Work Package 4: Recommendations &amp; suggestions for policymakers, practitioners, and other stakeholders at local, state, and national levels to promote and practice MLP (Multi Layered Plastic) recycling</b>	
• <i>Draft Recommendation &amp; suggestions submission</i>	09 <sup>th</sup> January 2023
• <i>Final Techno-market analysis report submission</i>	13 <sup>th</sup> February 2023

**Period of assignment:** GIZ shall hire the service provider for the anticipated contract term, from from **15<sup>th</sup> July 2023** to **15<sup>th</sup> Mar 2024**.

**Location of assignment:** New Delhi

### 3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter **Error! Reference source not found.** are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

#### Technical-methodological concept

**Strategy:** The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter **Error! Reference source not found.**). Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Chapter **Error! Reference source not found.**).

The bidder is required to present the actors relevant for the services for which it is responsible and describe the **cooperation** with them.

The bidder is required to present and explain its approach to **steering** the measures with the project partners and its contribution to the results-based monitoring system.

The bidder is required to describe the key **processes** for the services for which it is responsible and create a schedule that describes how the services according to Chapter **Error! Reference source not found.** are to be provided. In particular, the bidder is required to describe the necessary work steps and, if applicable, take account of the milestones and contributions of other actors in accordance with Chapter **Error! Reference source not found.**.

The bidder is required to describe its contribution to knowledge management for the partner and GIZ and promote scaling-up effects (**learning and innovation**).

#### Project management of the contractor

The bidder is required to explain its approach for coordination with the GIZ project.

- The contractor is responsible for selecting, preparing, training and steering the experts (international and national, short and long term) assigned to perform the advisory tasks.
- The contractor makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The contractor manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.

The contractor reports regularly to GIZ in accordance with the AVB of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH from 2018. In addition to the reports required by GIZ in accordance with AVB, the contractor submits the following reports:

- Inception report
- Contributions to reports to GIZ's commissioning party
- Brief quarterly or half-yearly reports on the implementation status of the project (5-7 pages)

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

The bidder is required to describe its backstopping concept. The following services are part of the standard backstopping package, which (like ancillary personnel costs) must be factored into the fee schedules of the staff listed in the bid in accordance with section 5.4 of the AVB:

- Service-delivery control
- Managing adaptations to changing conditions
- Ensuring the flow of information between GIZ and field staff
- Contractor's responsibility for seconded personnel
- Process-oriented technical-conceptual steering of the consultancy inputs
- Securing the administrative conclusion of the project
- Ensuring compliance with reporting requirements
- Providing specialist support for the on-site team by staff at company headquarters
- Sharing the lessons learned by the contractor and leveraging the value of lessons learned on site

#### 4. Criteria for Eligibility of firms

To be eligible to participate in this tender, the contracting firm must meet the following basic requirements:

- Average annual turnover for the last three financial years must be at least 50,000 Euros.
- The agency must be registered as an organization/entity in India.
- The number of employees as on previous year should be at least 10.
- The minimum commission value of reference projects should be at least 5,000 Euros.
- The agency should provide at least 3 reference projects in the technical field assessment of municipal solid waste management and/or plastic waste management and at least 1 reference project in India in last 3 years.
- The agency should provide at least 2 reference projects related to commercial/financial analysis of municipal solid waste management and/or plastic waste management.
- The agency should provide at least 2 reference projects of working on publications/ reports with data analysis related to dry municipal solid waste management/ plastic waste management.
- The agency should have regional experience of working in India.
- The agency should have experience with Other Development Assignments.

#### 4A. Personnel Concept

The bidder is required to provide personnel who are suited to filling the positions described, based on their CVs the range of tasks involved and the required qualifications.

The below-specified qualifications represent the requirements to reach the maximum number of points.

##### **I. Team Leader**

###### Tasks of the team leader

- Overall responsibility for the advisory packages of the contractor (quality and deadlines)
- Ensuring the coherence and complementarity of the services of the contractor with other services delivered by the programme at local and national level
- Coordinating and ensuring communication with GIZ, partners and others involved in the project.
- Regular reporting in accordance with deadlines
- Ensuring results monitoring is conducted.
- Responsibility for controlling the use of funds and financial planning in consultation with GIZ's officer responsible for the commission.
- Supporting the officer responsible for the commission in updating/adapting the project strategy, in evaluations and in preparing a follow-on phase
- Personnel management, in particular identifying the need for short-term assignments within the available budget, as well as planning and steering assignments and supporting local and international short-term experts.
- Consideration of cross-cutting themes (e.g. gender equality)

###### Qualifications of the team leader

- Education/training (2.1.1): University qualification (Master's degree) in environmental Science / environment planning / urban planning, or allied technical fields.
- Language (2.1.2): Good business language skills in Hindi and English.
- General professional experience (2.1.3): 10+ years of hands-on experience in solid waste management sector or allied technical fields.
- Specific professional experience (2.1.4): Minimum 5 years of experience in plastic waste management projects in India.
- Leadership/management experience (2.1.5): minimum 2 years of management/leadership experience as project team leader or manager in a company
- Regional experience (2.1.6): 5 years of experience in projects in India
- Development Cooperation (DC) experience (2.1.7): 2 years of experience in DC projects

##### **II. Expert in Plastic Waste Management (Expert 1)**

###### Tasks of the Plastic Waste Management Expert

- Responsible for supporting the Team leader with technical inputs related to MLP recycling techno-commercial market analysis.
- Conduct detailed technical analysis of collected information and present findings and recommendations to the team leader.
- Coordinate with the team leader to oversee research activities of the technical associates.
- Support in preparation of reports and provide suggestions for final input document.

**Qualifications of the Plastic Waste Management expert**

- Education/training (2.2.1): University qualification (Master' Degree) in Science, Management, environmental Science, environment Planning / urban planning, waste management, or allied technical fields.
- Language (2.2.2): Good business language skills in Hindi and English
- General professional experience (2.2.3): A minimum of 5 years of hands-on experience in developing and managing solid waste management projects.
- Specific professional experience (2.2.4): minimum 2 years of experience in multi-layered plastic waste management projects.
- Regional experience (2.2.6): 3 years' experience in India
- Development Cooperation (DC) experience (2.2.7): 1 year experience in working with DC

**III. Short term expert pool 1: Technical Associate****Tasks of the short-term expert pool**

- Responsible for supporting the Team leader and experts 1 in implementing the work packages.
- Conducting primary and secondary research of multi layered plastics, relevant market analysis, conducting techno-commercial assessment, etc.
- Writing reports and drafting the final input document

**Qualifications of the expert**

- Education/training (2.6.1): University qualification (Bachelor's Degree) in in Civil Engineering / Physical Planning / Urban Planning or Master's degree in environmental Science, environment Planning, policy planning, or allied technical fields.
- Language (2.6.2): Good business language skills in Hindi and English
- General professional experience (2.6.3): 3 years of experience in working in environmental/ solid waste management/ plastic waste management/ circular economy/ sustainable development, etc.
- Specific professional experience (2.6.4): 1 years of experience conducting research, and report writing.
- Regional experience (2.6.5): 1-year experience in India

**IV. Short term expert pool 2: Technical Associate****Tasks of the short-term expert pool**

- Responsible for supporting the Team leader and experts 1 in implementing the work packages
- Conducting primary and secondary research of multi layered plastics, relevant market analysis, conducting techno-commercial assessment, etc.
- Writing reports and drafting the final input document

**Qualifications of the expert**

- Education/training (2.7.1): University qualification (Bachelor's Degree) in in Civil Engineering / Physical Planning / Urban Planning or Masters degree in environmental Science, environment Planning, policy planning, or allied technical fields.
- Language (2.7.2): Good business language skills in Hindi and English
- General professional experience (2.7.3): 3 years of experience in working in environmental/ solid waste management/ plastic waste management/ circular economy/ sustainable development, etc.
- Specific professional experience (2.7.4): 1 years of experience conducting research, and report writing.



- Regional experience (2.7.5): 1-year experience in India

#### Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Sociocultural competence
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

The bidder must provide a clear overview of all proposed short-term experts and their individual qualifications.

## **5. Costing requirements**

### **Assignment of personnel**

Team Leader: On-site assignment for 65 expert days

Expert 1: Plastic Waste Management Expert: On-site assignment for 65 expert days

Short term expert pool 1: Technical Associate 1- Research: On-site assignment for 95 days

Short term expert pool 2: Technical Associate 2- Research: On-site assignment for 95 days

### **Travel**

The bidder is required to calculate the travel by the specified experts and the experts it has proposed based on the places of performance stipulated in the table below and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses. Overall total 10 round trips are to be budgeted (5 trips for 2 experts). Each trip is to be budgeted for 2 days each. Hence per diem, accommodation is to be budgeted for total of 20 days. 2 local travel for each day is planned, making it 40 times.

### **Workshops, training**

The contractor must facilitate, organise and manage the above workshops in coordination with GIZ. Please note that the expense related to conducting training (including logistics, venue booking, administrative costs, catering etc.) will be borne by GIZ India.

Service provider to exclude training related budget estimate. Please only include professional costs of the experts in the budget.

## **6. Inputs of GIZ or other actors**

GIZ India shall be responsible for co-ordinating this project with the Ministry of Housing and Urban Affairs (MoHUA) in the due course of this activity.

## **7. Requirements on the format of the bid**

The structure of the bid must correspond to the structure of the ToRs. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English (language).

The complete bid shall not exceed 30 pages (excluding CVs & other supporting company documents)

The CVs of the personnel proposed in accordance with Chapter **Error! Reference source not found.** of the ToRs. The CVs shall not exceed 4 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs should be submitted in English (language) only.

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

Please calculate your price bid based exactly on the aforementioned costing requirements. In the contract the contractor has no claim to fully exhaust the days/travel/workshops/budgets. The number of days/travel/workshops and the budget amount shall be agreed in the contract as 'up to' amounts. The specifications for pricing are defined in the price schedule.

Furthermore, The Contractor accepts the Consulting Engagement on a best and informed judgement basis with full knowledge of the tasks to be performed, the place of performance and the precautions and safeguards to be reasonably taken by the Contractor to mitigate all types of risks associated with the said Consulting Engagement. The Contractor undertakes the Consulting Engagement at his/her own risk and responsibility and shall not, under any circumstances, and at any time, be entitled to assert any liability or other claims whatsoever against the GIZ, its Management, Officers and Employees for any consequences or risks or harm that may arise to the Contractor in the course of or as a consequence of undertaking the Consulting Engagement or any actions or consequences arising in relation to such Consulting Engagement.