



Life Cycle Management Project in Plastic Industry in China

Review PIF and Make a recommendation

Basic project information

GEF ID

11543

Countries

China

Project Name

Life Cycle Management Project in Plastic Industry in China

Agencies

UNDP

Date received by PM

3/20/2024

Review completed by PM

5/8/2024

Program Manager

Yuki Shiga

Focal Area

Chemicals and Waste

Project Type

GEF-8 PROJECT IDENTIFICATION FORM (PIF) REVIEW SHEET**1. General Project Information / Eligibility**

a) Does the project meet the criteria for eligibility for GEF funding?

b) Is the General Project Information table correctly populated?

Secretariat's Comments

2024.5.8:

Cleared.

2024.5.6:

There is a new LoE that explicitly includes Foreign Environmental Cooperation Center (FECO), and the Ministry of Ecology and Environment (MEE) as the executing partners. Though the footnote that conditions the selection of the executing partner ?Subject to the capacity assessment carried out by the GEF Implementing Agency, as appropriate? is included, it makes reference to the GEF Implementing Agency (UNDP), instead of the national executing partners (Foreign Environmental Cooperation Center (FECO), and the Ministry of Ecology and Environment (MEE)). Please get an email from the OFP accepting this footnote being applicable to the national executing partners (this is an alternative to request a new LoE).

I am pleased to endorse the preparation of the above project proposal with the support of the GEF Implementing Agency listed below. If approved, the preparation of the proposal will be supported by and the project executed by UNDP. During the Project Preparation Grant (PPG) phase, the GEF Implementing Agency should ensure that all the necessary project contents have been revised following the comments made by the Ministry of Finance during the initial review. I request the project document be submitted to the Ministry of Finance for a second review before it is submitted to the GEF Secretariat for CEO endorsement / Approval. If the project is endorsed, I request the GEF Implementing Agency to comply with domestic procedures and sign the project document with the Ministry of Finance timely, so as to initiate the project.

The Executing partner for the above project proposal is the Foreign Environmental Cooperation Center(FECO), Ministry of Ecology and Environment(MEE). The total financing (from GEFTF) being requested for this project is US\$ 22,415,850, inclusive of project preparation grant (PPG), if any, and Agency fees for project cycle management services associated with the total GEF Project Financing. The financing requested for China is detailed in the table below.

2024.4.23:

The LoE does not indicate that the executing partner is 'Foreign Environmental Cooperation Center (FECO), and the Ministry of Ecology and Environment (MEE)'. However, in Portal these two are included as executing partners. Please modify the executing partner and the type in Portal to 'to be determined?', or get new LoE (the executing partner can be changed during the preparation phase).

General Project information 			
Project Title:	Life Cycle Management Project in Plastic Industry in China		
Region:	China	GEF Project ID:	11543
Country(ies):	China	Type of Project:	FSP
GEF Agency(ies):	UNDP	GEF Agency ID:	UNDP: 979
Executing Partner:	Foreign Environmental Cooperation Center (FECO), Ministry of Ecology and Environment (MEE)	Executing Partner Type:	Government
GEF Focal Area (s):	Chemicals and Waste	Submission Date :	3/20/2024

Agency's Comments

UNDP Response 8 May 2024

We apologize for this. As per the GEF request, an email from the OFP accepting the footnote as applicable to national executing partners has been sent to the GEF Secretariat on May 8th, 2024. A copy of this email is also uploaded to the GEF Portal.

UNDP Response 1 May 2024

A new LOE issued by the OFP on April 26th indicating FECO/MEE as the execution partner has been uploaded to the Portal.

2. Project Summary

Does the project summary concisely describe the problem to be addressed, the project objective and the strategies to deliver the GEBs or adaptation benefits and other key expected results?

Secretariat's CommentsCleared.

Agency's Comments

3 Indicative Project Overview

- 3.1 a) Is the project objective presented as a concise statement and clear?**
b) Are the components, outcomes and outputs sound, appropriate and sufficiently clear to achieve the project objective and the core indicators per the stated Theory of Change?

Secretariat's Comments

2024.5.1: Cleared

2024.4.23:

component 2 seems to be ?investment? rather than ?technical assistance? in terms of component type, as it covers demonstration activities on the ground. Or please clarify why this component should be categorized as technical assistance.

Agency's Comments

UNDP Response 1 May 2024

Thanks for pointing this out. Yes, this should be an ?investment? component. We have corrected it into "Investment" in the revised PIF.

- 3.2 Are gender dimensions, knowledge management, and monitoring and evaluation included within the project components and appropriately funded?**

Secretariat's Comments 2024.5.1: Cleared

2024.4.23:

? Noting the Gender Actions specified in the submission, we would like to reiterate that as per GEF guidance, gender considerations need to be reflected in the project description, components and outputs. In this regard, the Agency is requested to ensure that: i) policies developed are gender-responsive (e.g., Outputs 1.1.1, 1.1.2, 1.2.1, 1.2.2, 1.3.1); ii) women and gender experts meaningful engage in trainings and decision-making processes (Outcome 1.4). In component 3, please address gender inequalities in women's access to and knowledge of financial mechanisms and business models.

? In all activities engaging stakeholders, please ensure that gender experts and representative of women's groups/women's networks are involved (e.g., the Gender and Chemicals Partnership).

? Please ensure that all KM and communications products feature good practices and lessons learned on gender mainstreaming/women's empowerment. Under M&E, ensure that gender dimensions are integrated, monitored, and reported on, and that the Gender Action Plan is budgeted.

Agency's Comments

UNDP Response 1 May 2024

Relevant outputs in Components 1,2 and 3 will ensure proper engagement through Stakeholders Engagement Plan (SEP) and Gender Action Plan (GAP) that are planned to be developed during the CEO endorsement process (as usual practice, these costs are included in the PPG Funding request)

These recommendations are duly noted and the PIF has been revised accordingly. The detailed budget table to be developed during the PPG process will also include a budget for Gender Action Plan (GAP) implementation and monitoring under 4.1.2. and 4.2. and relevant results (Knowledge Management).

3.3 a) Are the components adequately funded?

b) Are the GEF Project Financing and Co-Financing contributions to PMC proportional?

c) Is the PMC equal to or below 5% of the total GEF grant for FSPs or 10% for MSPs? If the requested PMC is above the caps, has an exception (e.g. for regional projects) been sufficiently substantiated?

Secretariat's Commentscleared.

Agency's Comments

4 Project Outline

A. Project Rationale

4.1 SITUATION ANALYSIS

a) is the current situation (including global environmental problems, key contextual drivers of environmental degradation, climate vulnerability) clearly and adequately described from a systems perspective?

b) Are the key barriers and enablers identified?

Secretariat's CommentsCleared.

Agency's Comments

4.2 JUSTIFICATION FOR PROJECT

a) Is there an indication of why the project approach has been selected over other potential options?

b) Does it ensure resilience to future changes in the drivers?

c) Is there a description of how the GEF alternative will build on ongoing/previous investments (GEF and non-GEF), lessons and experiences in the country/region?

d) are the relevant stakeholders and their roles adequately described?

Secretariat's Comments cleared.

Agency's Comments

5 B. Project Description

5.1 THEORY OF CHANGE

a) Is there a concise theory of change that describes the project logic, including how the project design elements will contribute to the objective, the expected causal pathways, and the key assumptions underlying these?

b) Are the key outputs of each component defined (where possible)?

Secretariat's Comments

2024.5.3: cleared

2024.5.1:

On Outcome 2.1, please reflect/highlight the response in the reviewsheet in the PIF.

2024.4.23

- Outcome 2.1 mentions that project sites will be identified in the later stage. Please elaborate on the identification process regarding the project sites and products for demonstration, including the criteria for selection and the timeline (during PPG).
- Outcome 3.1 mentions that it will ?study? innovative financing mechanisms and ?promote? research on business models etc. Can the project go one step further to establish such mechanisms or test such business models etc. on the ground?
- Outcome 3.2 seems to be about database and knowledge sharing. Please elaborate on how this activity will ensure that this information and data will reach stakeholders beyond project participants and ensure good accessibility.
- Fig. 3 on Theory of Change is hard to read presumably due to low resolution.

Agency's Comments

UNDP Response 1 May 2024

On Outcome 2.1

Many factors including the following have been considered when selecting project sites: location in coastal and riverine area, strong commitment to carry out demonstration activities, capacity, and financing. During PPG stage, interested provinces will be requested to submit letters of interest to apply, a list of detailed criteria will be developed

and used to screen and select project sites. For the selection of enterprises and products, consultations will be held with key stakeholders, including plastic product producers, logistics and e-commerce enterprises, large shopping malls and supermarkets, low value plastic sorting and high-value utilization enterprises, and the provincial and local level Environmental Protection Bureaus/Departments. The enterprises selected shall: 1) have the capacity to conduct pilot and can provide co-financing; 2) strong commitment to carry out demonstration activities; 3) meet industry standards and national environmental management requirements, 4) committed to adopt and operationalize pilot technologies in a stable, continuous manner for more than five years after project completion.

The project will refine the selection criteria for both at the PPG stage and launch a public tender exercise to solicit expressions of interest (for demonstration enterprises). Environmental and Social Impact Assessments and relevant due diligences will be conducted as soon as project sites are finalized.

Timeline for selection

The project will refine the selection criteria at the PPG stage and launch a public tender exercise to solicit expressions of interest on demonstration enterprises. Project sites and pilot enterprises selection will be further elaborated during PPG stage and finalized latest by the end of first year of implementation.

On Outcome 3.1

Yes. In addition to promoting the research on innovative financing and business models to support green production, consumption, reuse, and recycling of plastic products, the project has included activities to establish such mechanisms under the Component 3. And the project will also promote the development of programmes to promote the application of key financial mechanisms and business models in China (e.g. PPP/EPR/DRS/EOD). For example, households will be encouraged to separate plastic waste at source through deposit-refund (like the deposit-refund systems for beverage bottles). Recycling will also be encouraged through financial incentives such as plastics taxes, recycled content targets and EPR.

Additionally, the project will support the establishment of a database on green financial services for plastic pollution control and promote circularity in plastics industry. It will facilitate the establishment of a platform for cooperation between enterprises and financial institutions to tackle plastic pollution, including an innovative fund to leverage resources and investment in green design, alternative solutions and sustainable consumption model. Furthermore, the undertaking will foster endeavors and exchanges on the platform to promote dialogues, cooperation and joint actions among governments, the private sector, financial institutions and other stakeholders.

On Outcome 3.2

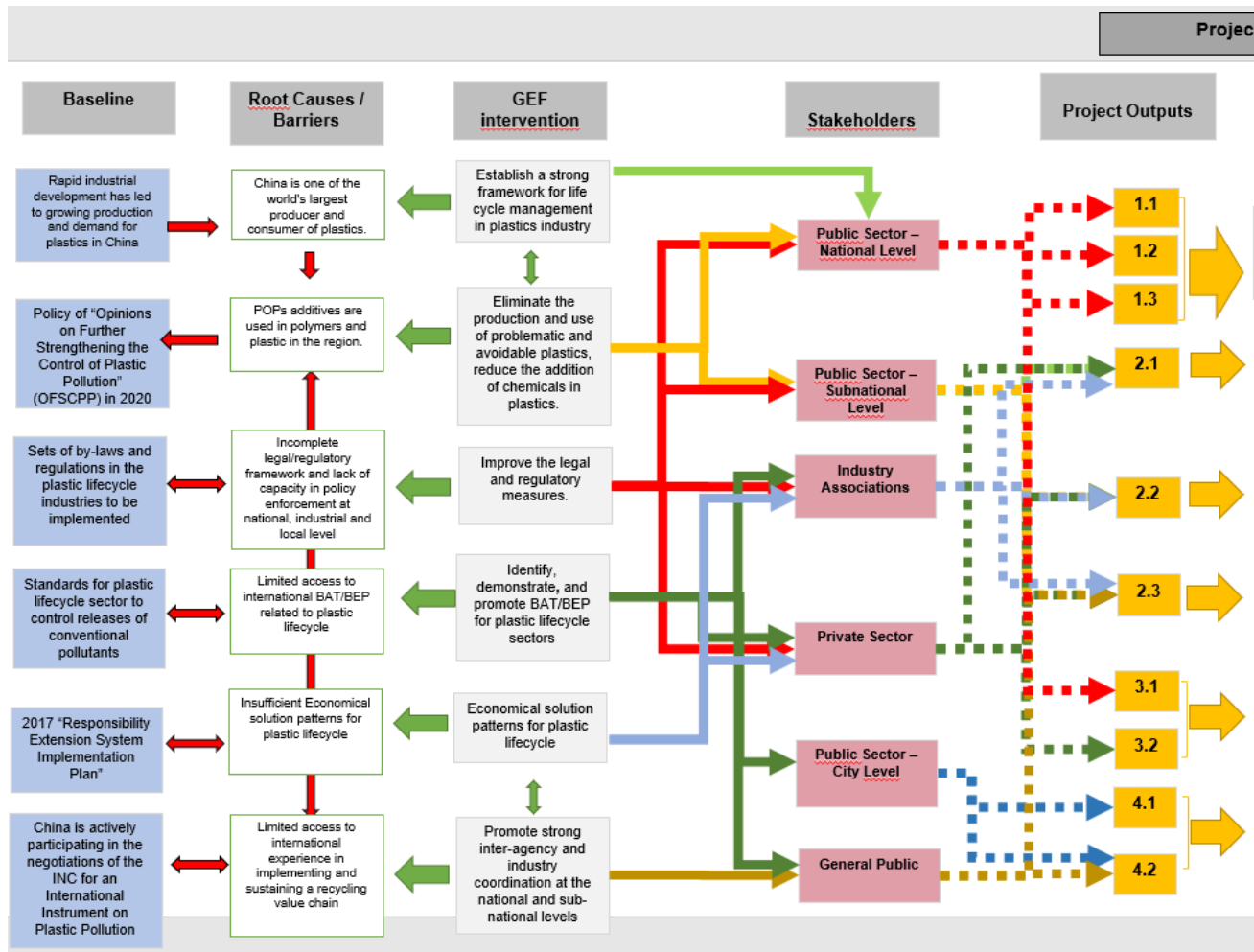
Yes. Activities 4.1.1, 4.1.2 and 4.2.1 answer to this comment. The knowledge management system of this project will also include training sessions for practitioners participating in the project activities to determine the knowledge management activities, in particular, the potential synergies in the methodologies and content to be adopted.

The project will provide special training for those responsible for the plastic industry. One of the outputs of the project is the establishment of an operational information exchange network to disseminate knowledge on chemicals reduction in plastic relating industry within the relevant departments in China. The results of the project activities could be shared with other developing countries. Furthermore, the activity will also promote the awareness-raising activities on life-cycle management of plastics products for various stakeholders including the general public, NGOs, women and youth.

Additionally, this project plans to work with partners to encourage private sector enterprises to disclose plastics-related sharing (potentially ESG data, but this needs to be finalized and will be elaborated at PPG stage).

On Fig. 3

We provided a separate TOC document with better resolution as an attachment in the Portal.



UNDP Response 3 May 2024

On Outcome 2.1, the earlier response is included under Outcome 2.1, on page 17 of the PIF. The changes are now highlighted in yellow. It is also highlighted in the Portal.

5.2 INCREMENTAL/ADDITIONAL COST REASONING

Is the incremental/additional cost reasoning properly described as per the Guidelines provided in GEF/C.31/12?

Secretariat's Comments

2024.5.3: cleared

2024.5.1:

Please reflect/highlight the response in the reviewsheet in the PIF.

2024.4.23

- please elaborate on and highlight the incremental/additional cost reasoning.

Agency's Comments

UNDP Response 1 May 2024

The project baseline described many obstacles and challenges to reduce the life cycle impact from the plastic sector in China. The project, with GEF financing, will introduce international experience through improved legal and regulatory measures, BAT/BEP demonstration, financing mechanisms and business models, strengthened capacity for effective management, in order to eliminate the production and use of problematic and avoidable plastics, reduce and prevent toxic and hazardous chemicals release, improve the plastic reuse and recycling system, and promote the utilization of low-value plastic waste, thus facilitating the transformation of plastics industry towards circularity and zero waste in China.

Without GEF support, it is expected that China will continue its efforts to improve plastic waste disposal, but without paying much attention to the green design, financial models and low-value plastic waste. At this particular point in time, when a significant growth of the sector is expected to occur, it is more than ever important to ensure that the sector starts operating in accordance with environmental laws and standards.

In a business-as-usual (BAU) scenario, most plastic waste will be disposed by incineration. However, large low-value plastic waste cannot be separated to recycle and financially in China's plastic sector. Without GEF support it is unlikely that BAT/BEP technologies and financial models will be introduced.

Furthermore, it is expected that very limited efforts will be undertaken to access the criteria for the identification of chemicals and polymers of concern from the sector, which would lead to inadequate enforcement of newly developed chemicals policies and standards for plastic sector. Simply stated, it is foreseeable that chemicals and polymers issues would be simply ignored under a BAU scenario.

UNDP Response 3 May 2024

We have added a subsection **Incremental/Additional Cost Reasoning** under Theory of Change to include these inputs, reflected/highlighted on page 19 of PIF, and highlighted in the Portal as well.

5.3 IMPLEMENTATION FRAMEWORK

a) Is the institutional setting, including potential executing partners, outlined and a rationale provided?

b) Comments to proposed agency execution support (if agency expects to request exception).

c) is there a description of potential coordination and cooperation with ongoing GEF-financed projects/programs and other bilateral/multilateral initiatives in the project area

d) are the proposed elements to capture and disseminate knowledge and learning outputs and strategic communication adequately described?

Secretariat's Comments

2024.5.8: cleared.

2024.5.6:

Section ?Coordination? still contains a text that suggest UNDP's Country Office support for the execution of the project ? this is pre-empting an execution option that we want to avoid at this early stage. Please remove this sentence.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project? No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

According to the introduction of Circular Solutions to Plastic Pollution Integrated Program (IP), packaging, particularly single-use related to the food and beverage sector, will be the priority for the Plastic IP since it is the main source of plastic waste in developing countries. The project will eliminate and phase out the production and use of problematic and unnecessary plastics, a large portion of which are packaging materials for the food and beverage industry, by strengthening the whole life-cycle management of plastics, and the results of the project will contribute to the achievement of the objectives of the GEF Plastics IP project. In addition, the project will promote the results of the project and China's experience in managing plastic pollution along the whole chain through South-South cooperation, contributing Chinese solutions to global plastic pollution management. The project will maintain close cooperation with other GEF projects implemented in China, as well as global and regional projects implemented by UNDP, so as to learn from the implementation experience of other projects on the one hand, and make use of the platforms and conditions created by the existing projects on the other hand, to promote the implementation of this project, in order to make this project more effective.

In August 2020, the China National Light Industry Council, the China Petroleum and Chemical Industry Federation, the China Plastics Processing Industry Association and the China Packaging Federation issued a [Joint Initiative on Working Together for the Sustainable Development of Plastics](#). The initiative proposes to take recycling, easy recovery, and degradation as the guide, increase scientific and technological innovation, and research and develop plastic materials and products that meet the performance standards, are green, environmentally friendly, and economically applicable. At the same time, it will accelerate the development of relevant standards, improve the standard system regarding the recycling of plastics, issue the Guide to Classification and Labelling Requirements for Degradable Plastics and a series of standards for recycled plastics, carry out the evaluation and identification of green design products in accordance with the green design evaluation standards for degradable plastics, and provide technical support for the establishment of an industrial system regulating the recycling and reuse of plastics.

In April 2022, China National Light Industry Council, China Consumers Association, China National Food Industry Association, China Association of Bakery & Confectionery Industry, China Alcoholic Drinks Association, China Paper Association, China Cleaning Industry Association and other 14 units jointly issued the initiative of 'Opposing excessive packaging of commodities and practicing the concept of simplicity and moderation' to the majority of operators and consumers. "The initiative is mainly related to nine aspects. The initiative involves nine aspects, including consciously fulfilling legal obligations, exploring the establishment of packaging recycling mechanism, consciously resisting the use of commodity packaging as a gimmick to induce or mislead consumers to make purchases. The initiative is of great significance in reducing plastic pollution at source and promoting the plastic circular economy. During implementation, the project will maintain close communication and collaboration with relevant associations and stakeholders to promote the implementation of the initiatives and will continue to expand their scope of influence through publicity and promotional activities.

The relevant initiatives are of great significance in reducing plastic pollution at source and promoting a plastic circular economy. In the course of implementation, the project will maintain close communication and collaboration with relevant associations and stakeholders to promote the implementation of the initiatives, and will continue to expand their scope of influence through publicity and promotion activities.

The implementation modality at PIF stage is proposed to be NIM. Further assessment on IP capacity will be conducted at PPG stage to evaluate whether execution support will be requested.

2024.5.1:

Please reflect/highlight the response on the coordination arrangement in the reviewsheet in the PIF.

2024.4.23

- Please elaborate on the coordination arrangement among the different project sites in spanning across the country, and are geographically apart from each other.
- In section "Coordination and Cooperation with Ongoing Initiatives and Project", the Agency answered "Yes" to the question of whether the GEF Agency expected to play an execution role. They also included a standard statement indicating that their involvement in execution will be assessed to a later date. Please remove any mention for them to carry out executing functions as this will be only decided during PPG phase.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project? **Yes**

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, in potential for co-location and/or sharing of expertise/staffing

According to the introduction of Circular Solutions to Plastic Pollution Integrated Program (IP), packaging, particularly single-use related and beverage sector, will be the priority for the Plastic IP since it is the main source of plastic waste in developing countries. The eliminate and phase out the production and use of problematic and unnecessary plastics, a large portion of which are packaging materials in the food and beverage industry, by strengthening the whole life-cycle management of plastics, and the results of the project will contribute to the achievement of the objectives of the GEF Plastics IP project. In addition, the project will promote the results of the project and China's experience in managing plastic pollution along the whole chain through South-South cooperation, contributing Chinese solutions to global plastic pollution management. The project will maintain close cooperation with other GEF projects implemented in China, as well as global and regional projects implemented by UNDP, so as to learn from the implementation experience of other projects on the one hand, and make use of the good conditions created by the existing projects on the other hand, to promote the implementation of this project, in order to make this project more effective.

In August 2020, the China National Light Industry Council, the China Petroleum and Chemical Industry Federation, the China Plastic Industry Association and the China Packaging Federation issued a Joint Initiative on Working Together for the Sustainable Development. The Initiative proposes to take recycling, easy recovery, and degradation as the guide, increase scientific and technological innovation, and develop plastic materials and products that meet the performance standards, are green, environmentally friendly, and economical. At the same time, it will accelerate the development of relevant standards, improve the standard system regarding the recycling of plastics, Guide to Classification and Labelling Requirements for Degradable Plastics and a series of standards for recycled plastics, carry out the identification of green design products in accordance with the green design evaluation standards for degradable plastics, and provide support for the establishment of an industrial system regulating the recycling and reuse of plastics.

In April 2022, China National Light Industry Council, China Consumers Association, China National Food Industry Association, China Bakery & Confectionery Industry, China Alcoholic Drinks Association, China Paper Association, China Cleaning Industry Association units jointly issued the initiative of "Opposing excessive packaging of commodities and practicing the concept of simplicity and moderation" by the majority of operators and consumers. "The initiative is mainly related to nine aspects. The initiative involves nine aspects, including fulfilling legal obligations, exploring the establishment of packaging recycling mechanism, consciously resisting the use of commodity packaging as a gimmick to induce or mislead consumers to make purchases. The initiative is of great significance in reducing plastic pollution and promoting the plastic circular economy. During implementation, the project will maintain close communication and collaboration with relevant associations and stakeholders to promote the implementation of the initiatives and will continue to expand their scope of influence through publicity and promotional activities.

The relevant initiatives are of great significance in reducing plastic pollution at source and promoting a plastic circular economy. In the implementation, the project will maintain close communication and collaboration with relevant associations and stakeholders to promote the implementation of the initiatives, and will continue to expand their scope of influence through publicity and promotion activities.

The implementation modality will be decided during the PPG phase. The CO support to National Implementation (NIM) may be considered a request from the implementing partner due to the operation or procurement challenges. UNDP will document all execution arrangements in the project document and CEO endorsement request.

Agency's Comments

UNDP Response 8 May 2024

As per the GEF request, we have removed any indication on execution service. The PIF and Portal are updated accordingly.

UNDP Response 1 May 2024

FECO/MEE will take over the coordination responsibilities under the project. The project will involve a wide range of private and public stakeholders across China. Project steering committee and the corresponding coordination mechanism will be established and operationalized by FECO during project implementation period for stakeholder involvement. The Steering Committee set up under the project will act as a mechanism for regular monitoring and coordination of project activities.

Regarding to the second question, we have unselected it. The implementation modality at PIF stage is proposed to be NIM. Further assessment on IP capacity will be conducted at PPG stage to evaluate whether execution support will be requested.

UNDP Response 3 May 2024

This paragraph is inserted and highlighted under "Relevant stakeholders, private sector and local actors and their roles in the system" of the PIF on Page 13. Revised/highlighted in the Portal too.

5.4 a) Are the identified core indicators calculated using the methodology included in the corresponding Guidelines (GEF/C.54/11/Rev.01)?

b) Are the project's indicative targeted contributions to GEBs (measured through core indicators)/adaptation benefits reasonable and achievable?

Secretariat's Comments

2024.5.3: cleared

2024.5.1.

Chemicals related indicators:

The coverage period for several chemicals related indicators are extended beyond the project duration of 3 years to 8 years. As confirmed in the email from UNDP on April 30th, coverage period of chemicals related indicators does not have to be extended.

excerpt from UNDP email (April 30th, 2024)

> We then will calculate the GEBs of POPs reduction for Core Indicator 9 for three years

during the project implementation, and Core indicator 6 (GHGs) for three years in the project implementation and 5 years after.

Indicator 6.7: there is no Indicator 6.7 in GEF-8 results framework. Please check.

recycling. For the baseline calculations, GHG emissions from waste sector for demonstration cities were considered. Indicator 6.7 - The green design of plastic products (Activity 2.1.1), green plastic packaging and logistics demonstration (Activity 2.2.2 and Activity 2.2.3), demonstration for low-value plastic waste recycling (Activity 2.3.1), and BAT/BEP demonstration (Activity 2.3.2) will result in a reduction of plastic, which will result in direct GHG emission reduction. Using a timeline of eight years in total, direct GHG reduction is calculated to be 9,002,700 tCO₂e (accrued value). According to the

2024.4.23

- Several indicators seem to have different sub-indicator number. Please check.

- Indicator 6.7 - The green design of plastic products, green plastic packaging and logistics demonstration will result in a reduction of plastic, which will achieve 2.0 tCO₂e /t emission reduction. The total reduction over 3 years will be 915,900 tCO₂e.
- Indicator 6.8- Demonstration for low-value plastic waste recycling could reduce 25,000 t/a of plastic waste from entering domestic waste incineration, based on the average GHG emissions from domestic waste incineration for power generation in

- GHG spreadsheet: Please submit an excel sheet with the GHG calculations, providing also information on the data sources. For instance, it is unclear the source of the average GHG emissions from domestic waste incineration for power generation in China. Also, please explain how the 2.0 tCO₂e /t emission reduction from the green design of plastic products has been calculated/estimated. Likewise, it is unclear how they get the value of 963,150 tCO₂e reductions from plastics waste avoidance activities. Please note the calculation spreadsheet shall provide the sources of this data as well the calculations so the final numbers can be easily tracked.

What activities these emission factors correspond to should be clarified.

? Direct versus indirect GHG emission reductions: GEF projects can estimate direct, direct post-project? and indirect emission reductions. The project seems to be mixing up direct and indirect emissions reductions. It is estimating GHG emissions reductions due to (1) plastic waste avoidance activities, (2) demonstration pilots for low-value plastic waste recycling which avoid plastic entering domestic waste incineration, and (3) regional promotion of these activities avoid plastic waste from entering domestic waste incineration. Activities 1 and 2 seem to be actual investment activities and could be counted as direct emission reductions, while (3) seems to be more related to policy interventions (i.e. promotional activities) to scale up the activities implemented in (2). If this is the case, (3) shall count as direct emission reductions. For further information on how the GEF defines direct and indirect emissions reductions, please check the following Manual (section I) - https://www.thegef.org/sites/default/files/council-meeting-documents/C.33.Inf_.18_Climate_Manual.pdf

- Accounting period: For the estimation of the GHG emission reductions, the GEF guidelines (as shared above) suggest to use for the accounting period the lifetime of the investment, allowing for the calculations to go beyond the project implementation and therefore the normal project monitoring period. Based on this, the agency may want to reconsider a longer accounting period in line with the guidelines shared above.

Agency's Comments

UNDP Response 1 May 2024

Upon further assessment based on GEF's comments and the GEF guideline, Project Core Indicator on GHG reduction has been revised and accounted for a total of eight years: three years of project implementation, plus five years post-completion. Other Core Indicators adopt a timeline of three years (of project implementation). This duration takes into account the time needed to initiate and operationalize project demonstrations.

A GEB spreadsheet is now attached separately to show the details, including data source, emission factors, calculation methodology so that the final numbers can be easily tracked.

GHG (3 years implementation+after 5 years)						Waste and POPs (3 years implementation+after 5 years)						POPs in w/ SCCC			HBGD
No.	Activity	Plastic and waste reduction (ta)	Accounting Duration (year)	Plastic and waste reduction (t)	Emission factor (t CO2-eq/t)	GHG reduction (tCO2e)	No.	Activity	Plastic and waste reduction (ta)	Accounting Duration (year)	Total Plastic and waste reduction (t)	Emission Factor	POPs in waste reduction (ta)	SCCP in waste reduction (t)	HBGD in waste reduction (t)
1	2.1.1 Demonstration on green design of plastics	1,500	8	12000	5.2	62400	1	2.1.1 Demonstration on green design of plastics	1,500	3	4,500	0.05	225	113	113
2	2.2.3 Plastic reduction demonstrations in university campus, large shopping centers or supermarkets	7.2	8	57.6	5.2	299.52	2	2.2.3 Plastic reduction demonstrations in university campus, large shopping centers or supermarkets	7.20	3	22	0.05	1.08	0.54	0.54
3	2.2.2 Demonstration on green packaging and green logistics models in logistics, e-commerce, express delivery sectors	150,000	8	1,200,000	5.2	6240000	3	2.2.2 Demonstration on green packaging and green logistics models in logistics, e-commerce, express delivery sectors	150,000	3	450,000	0.05	22,500	11,250	11,250
4	2.3.1 Demonstration of collection models for low-value recyclable plastics in coastal and riverine cities.	100,000	8	800000	2.7	2160000	4	2.3.1 Demonstration of collection models for low-value recyclable plastics in coastal and riverine cities.	100,000	3	300,000	0.05	15,000	7,500	7,500
5	2.3.2 BAT/BEP demonstration on intelligent and efficient segregation of plastic waste and high value utilization of low-value recyclable plastics.	25,000	8	200000	2.7	540000	5	2.3.2 BAT/BEP demonstration on intelligent and efficient segregation of plastic waste and high value utilization of low-value recyclable plastics.	25,000	3	75,000	0.05	3,750	1,875	1,875
合计				2,212,068		9,002,700	6	PVC Policy reduction	200,000	3	600,000	0.05	30,000	15,000	15,000
合计							总计	476,607			1,429,522		71,476	36,738	36,738
UPOPs (3 years implementation+after 5 years)															
No.	Activity	Plastic and waste reduction (ta)	Accounting Duration (year)	Plastic and waste reduction (t)	GHG Emission Factor (t CO2-eq/t)	UPOPs Reduction (t CO2-eq)									
1	2.1.1 Demonstration on green design of plastics	1,500	3	4,500	30.000	0.135									
2	2.2.3 Plastic reduction demonstrations in university campus, large shopping centers or supermarkets	7.20	3	22	30.000	0.001									
3	2.2.2 Demonstration on green packaging and green logistics models in logistics, e-commerce, express delivery sectors	150,000	3	450,000	30.000	13.500									
4	2.3.1 Demonstration of collection models for low-value recyclable plastics in coastal and riverine cities.	100,000	3	300,000	30.000	9.000									
5	2.3.2 BAT/BEP demonstration on intelligent and efficient segregation of plastic waste and high value utilization of low-value recyclable plastics.	25,000	3	75,000	30.000	2.250									
6	PVC Policy reduction	200,000	3	600,000	30.000	18.000									
合计						42.89									

The section on Core Indicators have been revised in the PIF and the excel sheet. The GEF8 Core Indicator Report excel sheet is also revised and uploaded in the Portal.

For Core Indicator 6 on GHG reduction, direct GHG reduction is calculated to be 9,002,700 tCO2eq. in total. This covers direct emission from activities: The green design of plastic products (Activity 2.1.1), green plastic packaging and logistics

demonstration (Activity 2.2.2 and Activity 2.2.3), demonstration for low-value plastic waste recycling (Activity 2.3.1), and BAT/BEP demonstration (Activity 2.3.2).

Regarding emission factor throughout the life cycle, PIF adopts an average carbon emission of 5.2 tCO₂e/t of plastic produced, consumed and disposed in China. This is according to research data from Beijing University in 2022, where the carbon emission intensity of the plastics production process for in China is 2.5 tCO₂e/t^[1], which is broadly in line with the carbon emission intensity in Europe (source:Material Economics. Industrial Transformation 2050 - Pathways to Net-Zero Emissions from EU Heavy Industry.?R/OL?. <https://materialeconomics.com>.2019). Meanwhile, the average carbon emission intensity of the plastic waste disposal process (including incineration, landfill, etc.) is 2.7 tCO₂e/t^[2] (source: Data source: Beijing University, institute of energy. Green and low carbon development of the plastic industry in China. 2022.11). Noting that carbon emissions from the use of plastic products have a much lower emission intensity than production and end-of-pipe treatment, which are not taken into account in this document.

[1] Data source: Beijing University, institute of energy. Green and low carbon development of the plastic industry in China. 2022.11.

[2] Data source: Beijing University, institute of energy. Green and low carbon development of the plastic industry in China. 2022.11.

UNDP Response 3 May 2024

Yes, we confirm that Core Indicator 6 on GHG reduction is calculated for eight years, and the Core Indicators for chemicals (CI 9, CI10) are accounted for three years. The details are explained on page 21 and 22 of the PIF, as well as in the excel sheet on GEB calculation.

We apologize for the typo mistake, please kindly note that we have corrected it in the PIF and the portal. Core Indicator 6.2 - Emissions avoided outside AFOLU sector (direct) is included in Page 22 of PIF under Core Indicator table. Same was included in the GEF-8 Results Measurement Framework Worksheet.

5.5 NGI Only: Is there a justification of financial structure and use of financial instrument with concessionality levels?

Secretariat's Comments

Agency's Comments

5.6 RISKS

- a) Is there a well-articulated assessment of risk and identification of mitigation measures under each relevant risk category?
- b) Is the rating provided reflecting the residual risk to the likely achievement of intended outcomes after accounting for the expected implementation of mitigation measures?
- c) Are environmental and social risks, impacts and management measures adequately screened and rated at this stage and consistent with requirements set out in SD/PL/03?

Secretariat's Comments 2024.5.1: Cleared.

2024.4.23:

Kindly consider avoiding cross-references to pre-SESP document under the Climate, E&S and Stakeholders risk sections. Instead, consider writing a short summary of the risk description and anticipated mitigation measures.

Agency's Comments

UNDP Response 1 May 2024

Climate, E&S and Stakeholders risk are associated with output 2.3. As recommended, a summary of risk description and planned mitigation measures have been included in the PIF.

Climate risk:

The initial social and environmental screening has revealed that there is potential for a climate change risk due to the flooding or structural damage posed to storage facilities. Rising sea levels and risks related to coastal flooding, storm surges, and coastal erosion threaten China's densely populated low-elevation coastal cities. Facilities may therefore be vulnerable to weather events and flash floods, which need to be taken into consideration when determining areas where they will be sited. While the climate change risk has been rated as moderate, the project will conduct a climate risk/vulnerability assessment during the PPG phase, applying, as a minimum, the STAP Guidance on Climate Risk Assessment. This text has also been reflected in the revised PIF.

E&S risk: The initial social and environmental screening has revealed that there is potential for economic displacement through loss of income for informal workers, pollution, insufficient labour standards, community health and safety, and/or a negative impact on poor or marginalized groups due to the project's activities. To mitigate these potential risks, the project will include activities that aim to assess the potential social and

environmental impacts of the new policies, plans, laws, regulations, and guidance supported by the project or build in safeguards as part of the demonstration projects. For example, an environmental and social risk assessment of major plastic substitutes and alternative technology options will be prepared. The project will also invest early to ensure proper stakeholder engagement, including early stakeholder analysis and engagement in design stage and prepare a Stakeholder Engagement Plan to support the project's implementation. This text has also been reflected in the revised PIF.

Stakeholders risk: Economic displacement of informal waste collectors. The demonstration activities may affect access to resources for workers in the informal recycling sector, limiting their income. The workers may be from poor or marginalized communities and/or from minority ethnic groups.

Measures: A Stakeholder Engagement Plan will be prepared. Under Output 2.1.1, an environmental and social risk assessment of major plastic substitutes and alternative technology options will be prepared. A Livelihoods Policy Framework/Action Plan may also be required.

5.7 Qualitative assessment

- a) Does the project intend to be well integrated, durable, and transformative?**
- b) Is there potential for innovation and scaling-up?**
- c) Will the project contribute to an improved alignment of national policies (policy coherence)?**

Secretariat's Commentscleared

Agency's Comments

6 C. Alignment with GEF-8 Programming Strategies and Country/Regional Priorities

6.1 Is the project adequately aligned with focal area and integrated program strategies and objectives, and/or adaptation priorities?

Secretariat's Commentscleared

Agency's Comments

6.2 Is the project alignment/coherent with country and regional priorities, policies, strategies and plans (including those related to the MEAs and to relevant sectors)

Secretariat's Commentscleared

Agency's Comments

6.3 For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e. BD, CC or LD), does the project clearly identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and how it contributes to the identified target(s)?

Secretariat's Comments

Agency's Comments

7 D. Policy Requirements

7.1 Is the Policy Requirements section completed?

Secretariat's Commentscleared

Agency's Comments

7.2 Is a list of stakeholders consulted during PIF development, including dates of these consultations, provided?

Secretariat's Comments2024.5.1: Cleared.

2024.4.23

- Engagement with IPLC is not clear. Please elaborate.

Agency's Comments

UNDP Response 1 May 2024

During the PIF preparation stage, the general public, including majority and minority ethnic groups and local communities, was invited to a) raise their awareness on the environmental and social issues related to the plastic sector; b) exercise their rights as consumers to influence/improve the environmental performance of the sector. Their roles and responsibilities will be further defined at PPG stage.

During the PPG process, there will be a dedicated stakeholder engagement expert who will further identify and assess the project key stakeholders including IPLC, assess their interests in the project, define their roles and responsibilities during project implementation, monitoring and evaluation, lead the consultations, and formulate the stakeholder engagement plan (SEP). The SEP during PPG phase will account for consultations including the above-mentioned stakeholders and the proper procedures conducted to make sure that all stakeholders including IPLC are engaged throughout project life cycle.

8 Annexes

Annex A: Financing Tables

8.1 Is the proposed GEF financing (including the Agency fee) in line with GEF policies and guidelines? Are they within the resources available from (mark all that apply):

STAR allocation?

Secretariat's Comments

Agency's Comments

Focal Area allocation?

Secretariat's Commentscleared

Agency's Comments

LDCF under the principle of equitable access?

Secretariat's Comments

Agency's Comments

SCCF A (SIDS)?

Secretariat's Comments

Agency's Comments

SCCF B (Tech Transfer, Innovation, Private Sector)?

Secretariat's Comments

Agency's Comments

Focal Area Set Aside?

Secretariat's Comments

Agency's Comments

8.2 Is the PPG requested within the allowable cap (per size of project)? If requested, has an exception (e.g. for regional projects) been sufficiently substantiated?

Secretariat's Commentscleared

Agency's Comments

8.3 Are the indicative expected amounts, sources and types of co-financing adequately documented and consistent with the requirements of the Co-Financing Policy and Guidelines?

Secretariat's Comments2024.5.3: cleared

2024.5.1

Please further provide how the 'amount' of investment mobilized were estimated. In particular investment mobilized from private sector, as this account for significant portion of the entire co-financing.

2024.4.23

- Please elaborate further on how investment mobilized was identified, particularly that from the private sector.

Agency's Comments

UNDP Response 1 May 2024

The project's technology demonstration and technology diffusion activities are expected to draw substantial private sector funding. Investment mobilized is sourced out mainly from the contribution of private sector companies in the plastic sector. Investment mobilized is calculated based on initial consultations with interested industry associations, plastic products manufacturers, recycling enterprises, logistics companies and shopping centers. The amount (both in cash and kind) was estimated based on the cash, personnel, site, equipment, and technology investment that private sector enterprises will contribute to the project. The breakdown of co-financier and amount will be detailed during PPG stage.

UNDP Response 3 May 2024

While preparing for the PIF, rounds of consultations with stakeholders including the private sector were held in 2023. A summary of the consultations is covered under 'Stakeholder Engagement' section on page 29 of the PIF. During these consultations, many private sector enterprises expressed their strong interest in participating in pilot activities under the project.

Private sector stakeholders expressed interest include polymers and plastics producers under the petroleum and chemical industry associations, recyclers under the recycling association, chemicals and plastics producers under plastics processing industry association, packaging companies, environmental technology providers, and environmental new/renewable material companies.

An initial screening of interested companies were conducted and selected companies were requested to provide their co-financing contributions consistent with the requirements of the GEF Co-Financing Policy. The private sector investment mobilized shown in the cofinancing table is mainly calculated from the following categories: 1) candidate pilot enterprises' planned contribution under Component 2 with their own existing equipment and manufacturing site; 2) new capital and operational investments to be made during project implementation in the form of research, new equipment, technologies development, equipment retrofitting, and site modification for the purpose of piloting project activities under Component 2. These new investments will be made by the companies to achieve project results and upscaling project solutions nationwide on green and circular design for plastics, development of alternatives to problematic and avoidable plastics products, collection model pilots, intelligent and efficient segregation, microplastics abatement and disposal, and digital tracking and certification of recyclable plastics; and 3) new capital and operational investments to be made by big plastics end-users including logistics and delivery companies and shopping centers to adopt circular business models.

At PPG stage, the above-mentioned indicative co-financiers will be re-screened against a more detailed selection criteria, and the breakdown of co-financiers and amounts will be detailed in the CEO endorsement.

All of UNDP's inputs on cofinancing are also incorporated in the PIF and the Portal.

Annex B: Endorsements

8.4 Has the project been endorsed by the country's(ies) GEF OFP and has the OFP at the time of PIF submission name and position been checked against the GEF database?

Secretariat's Comments 2024.3.22

OFP letter is not uploaded to the GEF Portal at the time of PIF submission.

Agency's Comments

UNDP Response 1 May 2024

A revised OFP letter indicating FECO/MEE as the execution partner has been uploaded to the Portal.

Are the OFP endorsement letters uploaded to the GEF Portal (compiled as a single document, if applicable)?

Secretariat's Comments

Agency's Comments

Do the letters follow the correct format and are the endorsed amounts consistent with the amounts included in the Portal?

Secretariat's Comments

Agency's Comments

8.5 For NGI projects (which may not require LoEs), has the Agency informed the OFP(s) of the project to be submitted?

Secretariat's Comments

Agency's Comments

Annex C: Project Location

8.6 Is there preliminary georeferenced information and a map of the project's intended location?

Secretariat's Comments

Agency's Comments

Annex D: Safeguards Screen and Rating

8.7 If there are safeguard screening documents or other ESS documents prepared, have these been uploaded to the GEF Portal?

Secretariat's Comments

Agency's Comments

Annex E: Rio Markers

8.8 Are the Rio Markers for CCM, CCA, BD and LD correctly selected, if applicable?

Secretariat's Comments

Agency's Comments

Annex F: Taxonomy Worksheet

8.9 Is the project properly tagged with the appropriate keywords?

Secretariat's Comments

Agency's Comments

Annex G: NGI Relevant Annexes

8.10 Does the project provide sufficient detail (indicative term sheet) to take a decision on the following selection criteria: co-financing ratios, financial terms and conditions, and financial additionality? If not, please provide comments. Does the project provide a detailed reflow table to assess the project capacity of generating reflows? If not, please provide comments. Is the Partner Agency eligible to administer concessional finance? If not, please provide comments.

Secretariat's Comments

Agency's Comments

9 GEFSEC Decision

9.1 Is the PIF and PPG (if requested) recommended for technical clearance?

Secretariat's Comments 2024.9.17:

This PIF is recommended for technical clearance.

2024.5.9:

Returning this as clearance deadline has passed.

2024.5.6/ 5.1/ 4.23

Not yet. Please refer to the review items and resubmit for consideration (please highlight the change).

2024.3.22

OFP endorsement and IA/EA support letters missing.

Agency's Comments

UNDP Response 16 September 2024

As requested by the GEF Secretariat, a revised LoE dated on Sep. 12 has been provided by the OFP and now submitted.

UNDP Response 1 May 2024

A revised OFP letter indicating FECO/MEE as the execution partner has been uploaded to the Portal.

At PIF stage, the implementation modality indicates full NIM. In consultation with the OFP, further assessment on IPs capacity will be done to evaluate whether execution arrangement is needed during PPG phase.

UNDP Response 3 May 2024

All comments have been addressed accordingly.

9.2 Additional Comments to be considered by the Agency at the time of CEO Endorsement/ Approval

Secretariat's Comments

Agency's Comments

Review Dates

	PIF Review	Agency Response
First Review	4/23/2024	5/1/2024
Additional Review (as necessary)	5/1/2024	5/3/2024
Additional Review (as necessary)	5/3/2024	5/8/2024
Additional Review (as necessary)	5/6/2024	9/16/2024
Additional Review (as necessary)	5/8/2024	