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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-fifth Meeting
Montreal, 4-8 December 2024
Items 9 (c) and (d) of the provisional agenda[1]

WORLD BANK'S WORK PROGRAMME AMENDMENTS FOR 2024

* Re-issued for technical reasons on 21 November 2024.

[1] UNEP/OzL.Pro/ExCom/95/1

COMMENTS AND RECOMMENDATION OF THE FUND SECRETARIAT

1. The World Bank is requesting approval from the Executive Committee of US $330,000, plus agency support costs of US $23,100 for its 2024 work programme amendments listed in table 1. The submission is attached to the present document.

Table 1: World Bank's work programme amendments for 2024

Country	Activity/Project	Amount requested (US $)	Amount recommended (US $)
SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL			
A1: Project preparation for a Kigali HFC implementation plan (KIP) investment project			
Indonesia	Preparation of a KIP investment project in the domestic and stand-alone commercial refrigerator manufacturing sector	80,000	80,000
	Subtotal for A1	80,000	80,000
	Agency support costs	5,600	5,600
	Total for A1	85,600	85,600
A2: Preparation of a national inventory of banks of used or unwanted controlled substances and a plan for the collection, transport, and disposal of such substances [2]			
Thailand	Preparation of a national inventory of banks of used or unwanted controlled substances and plan	100,000	100,000
	Subtotal for A2	100,000	100,000
	Agency support costs	7,000	7,000
	Total for A2	107,000	107,000
SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION			
B1: Project preparation for enhancing energy efficiency in the context of HFC phase-down in the refrigeration and air-conditioning (RAC) manufacturing sector (decision 94/60)			
Thailand	Preparation of a project for enhancing energy efficiency in manufacturing of light commercial air-conditioning (AC) systems in the context of HFC phase-down	150,000	*
	Subtotal for B1	150,000	*
	Agency support costs B1	10,500	*
	Total for B1	160,500	*
	Total for A1, A2, B1	330,000	180,000
	Agency support costs for A1, A2, B1	23,100	12,600
	Grand total	353,100	192,600

* Recommended for individual consideration

SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL

A1: Project preparation for a Kigali HFC implementation plan investment project

Project description

2. The World Bank submitted a request for the preparation of stage I KIP investment project in the domestic and stand-alone commercial refrigerator manufacturing sector for one country as the designated implementing agency. This request is shown in section A1 of table 1.

[2] Herein referred to as preparation of a national inventory of banks of used or unwanted controlled substances and plan

Secretariat's comments

3. In reviewing the request, the Secretariat took into account the guidelines for the preparation of KIPs as contained in decision 87/50, the activities proposed for project preparation and their connection with other HFC-related projects in Indonesia.

4. The Secretariat noted that the Government of Indonesia had ratified the Kigali Amendment[3] and that the country has received funding for the preparation of the overarching strategy for a KIP,[4] and that the funding requested is in accordance with decision 87/50(f)(iii).

5. The request for project preparation of the KIP investment project includes five enterprises[5] manufacturing domestic and stand-alone commercial refrigeration equipment to convert from HFC-134a refrigerant to hydrocarbons. Project preparation activities include developing a plan to convert the plants, production line(s), and equipment for each enterprise and an environmental and safety management plan to handle flammable and/or toxic materials; the collection of supporting data on HFC consumption by the enterprises; consultations with relevant government agencies on the use of flammable and/or toxic refrigerants and product standards; and gender mainstreaming activities, including reviewing enterprise hiring policies. The participating enterprises are primarily manufacturers of domestic refrigerators but also manufacture other products such as display cases, chest freezers, and water dispensers.

6. The World Bank confirmed that this investment project for five enterprises will be submitted in 2025, along with the submission of stage I of the KIP.

Secretariat's recommendations

7. The Secretariat recommends blanket approval of the project preparation for an investment project in the domestic and stand-alone commercial refrigerator manufacturing sector as part of the Kigali HFC implementation plan for Indonesia, at the level of funding shown in section A1 of table 1.

A2: Preparation of a national inventory of banks of used or unwanted controlled substances and a plan for the collection, transport, and disposal of such substances

Project description

8. The World Bank submitted a request for the preparation of a national inventory of banks of used or unwanted controlled substances and plan for one country as the designated implementing agency, as shown in section A2 of table 1.

Secretariat's comments

9. In reviewing the request, the Secretariat took into account the criteria for the preparation of a national inventory of banks of used or unwanted controlled substances and plan in decision 91/66; the activities proposed for project preparation and their connection with the country's national phase-out/phase-down plans (i.e., HPMP or KIP which is under preparation). The Secretariat noted that the funding request is in line with decision 91/66.

[3] Date of ratification of the Kigali Amendment: 14 December 2022

[4] Funding for the project preparation for the overarching strategy of stage I of the KIP for Indonesia was approved at the 92nd meeting in the amount of US $220,000, plus agency support costs for the World Bank (decision 92/24)

[5] PT. Fujisei Plastik Seitek, PT. Haier Electrical Appliances, P.T. Maspion Elektronik, PT. Hartono Istana Teknologi, and PT Sanken Argadwija

10. The World Bank, as designated implementing agency, provided a description of the activities required for the preparation of a national inventory of banks of used or unwanted controlled substances and plan for Thailand using the relevant submission form for the project proposal.

11. The activities in the funding request for Thailand included consultations with relevant stakeholders; data collection and analysis on quantities of unused or unwanted refrigerants; assessment of existing infrastructure and regulatory framework for lifecycle management of controlled substances; development of lifecycle management plan for controlled substances to track and manage refrigerants and possibly, fire suppression agents from first import through recovery and disposal (including destruction); and gender mainstreaming considerations.

Secretariat's recommendation

12. The Secretariat recommends blanket approval for the preparation of a national inventory of banks of used or unwanted controlled substances and a plan for the collection, transport, and disposal of such substances for Thailand at the level of funding shown in section A2 of table 1.

SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION

B1: Project preparation for enhancing energy efficiency in the context of HFC phase-down in the refrigeration and air-conditioning manufacturing sector (decision 94/60)

Project description

13. The World Bank submitted a preparatory funding request for a project to enhance energy efficiency in the manufacturing of light commercial AC systems in the context of HFC phase-down in Thailand, as shown in section B1 of table 1. The submission was made in line with decision 94/60.

14. The project to be prepared would assist about 15 manufacturers of light commercial AC equipment, with cooling capacities ranging from 50,000 to 240,000 BTU/hr, in improving the energy efficiency of their products by 10 to 20 per cent while assisting them to convert their R-410A manufacturing capacity to a lower/low-GWP refrigerant.

15. The project preparation request would focus on the energy efficiency improvements to be implemented during the conversion project for the enterprises. It would include designing more efficient systems and sourcing requisite parts such as HFC-32 variable speed compressors, in addition to the formulation of the conversion project for the enterprises. The project's overall objective is to strengthen the energy efficiency of light commercial AC equipment in Thailand and to support Thailand-owned manufacturers to increase their manufacturing share of energy-efficient units. The project preparation activities include capacity needs assessment of enterprises and energy efficiency regulators; consultations with technology providers/suppliers in the region; data collection and analysis at the sector level; and the design and development of a project proposal.

16. Thailand has an established mandatory minimum energy performance standard (MEPS) system for room AC and refrigeration equipment under the Department of Alternative Energy Development and Efficiency and a voluntary labeling program called Label No. 5 under the Electricity Generating Authority of Thailand. There is no MEPS for AC units with over 50,000 BTU/hr capacity, however energy performance is controlled at the building/end-user level. The proposed project also aims to extend MEPS to cover AC with capacity larger than 50,000 BTU/hr.

Secretariat's comments

17. The Secretariat has reviewed the request for preparatory funding to enhance energy efficiency while converting from HFCs in the manufacturing of light commercial AC systems and notes that the project is in line with the criteria set out in decision 94/60. The Secretariat also notes that the same amount of preparatory funding is also for the conversion from HFCs to lower/low-GWP technology for the same enterprises and that the amount requested is in accordance with decision 87/50 (f)(iv), and that the Government of Thailand submitted HFC consumption data under Article 7 to the Ozone Secretariat for the years 2020 to 2022; a breakdown on the use of HFCs per sector in the country programme implementation reports is not available.

18. It is noted that although the country has MEPS for AC equipment, there are no MEPS for the types of AC equipment with capacity larger than 50,000 BTU/hr addressed by the project, which is a requirement under the operational framework on energy efficiency while phasing down HFCs. The Secretariat notes that there is a commitment from the Government to upgrade the regulations to establish the MEPS for this type of equipment while the project is being implemented.

19. The preparatory funding requested will address both the preparation of the HFC conversion and the energy efficiency component and therefore the Secretariat used as a reference for the cost analysis, the cost guidelines for the preparation of stage I of the KIPs contained in decision 87/50, which includes specific funding levels for the preparation of investment projects according to the number of enterprises. The level of funds requested is consistent with the level of funds recommended for KIP investment projects in sectors with more than 15 enterprises identified.

20. The Secretariat also noted that the activities included in the preparatory funding request, as described above, are consistent with the activities required for the preparation of investment projects and also include the work required for formulating the energy efficiency component pursuant to decision 94/60. The World Bank provided confirmation that this preparatory funding would prepare both the conversion, and the energy efficiency projects for these 15 manufacturing enterprises, and that these projects will be included in stage I of the KIP for Thailand which is expected to be submitted to the second meeting of 2025.

Secretariat's recommendations

21. The Executive Committee may wish to consider approving the request for project preparation to enhance energy efficiency and convert the use of HFCs to lower/low-GWP technology in the manufacture of light commercial air-conditioning systems in Thailand at the amount of US $150,000, plus agency support costs of US $10,500, for the World Bank.

2024 BUSINESS PLAN
WORK PROGRAM AMENDMENT

WORLD BANK GROUP

WORLD BANK IMPLEMENTED
MONTREAL PROTOCOL OPERATIONS

Presented to the
95th Meeting of the Executive Committee
of the Multilateral Fund

9 October 2024

WORK PROGRAM FOR

WORLD-BANK IMPLEMENTED MONTREAL PROTOCOL OPERATIONS

1. This proposed work program for Bank-Implemented Montreal Protocol Operations is prepared on the basis of the 2024-2026 World Bank Business Plan which was approved by the Executive Committee at its 93rd meeting.

2. The 2024-2026 World Bank Business Plan consists of investment and non-investment activities to assist Article 5 partner countries to meet and sustain their HCFC reduction targets: the 2020 35% reduction in both production and consumption sectors. The Business Plan includes, in addition to deliverables associated with previously approved and new investment activities, requests to extend support for implementation of existing institutional strengthening projects in 2 countries.

3. The 2024-2026 Business Plan also includes investment and non-investment activities for the World Bank client countries that either have ratified or in the process of ratifying the Kigali Amendment to phasedown HFCs. These activities will ensure their compliance with the 2024 freeze target and the 2029 10% reduction in the consumption sectors.

2024 Work Program – ExCom 95 Amendment

4. The proposed 2024 Work Program being submitted for consideration at the 95th Meeting of the Executive Committee, includes three (3) funding requests:

(i) One (1) for preparation of investment projects in domestic and stand-alone commercial refrigerator manufacturing for Indonesia

(ii) One (1) for preparation for enhancing energy efficiency project in light commercial air-conditioning systems for Thailand

(iii) One (1) for preparing life cycle management plan for controlled substances for Thailand

5. Brief description of the work program amendment activity requests are highlighted below.

Table 1: Funding Requests Submitted for Consideration by the 93rd Meeting of the Executive Committee

Country	Request (US$)	Support Costs (US$)	Duration (months)	Description	Supporting document
Indonesia	80,000	5,600	12-18	Preparation of investment projects in domestic and stand-alone commercial refrigerator manufacturing	Annex 1
Thailand	150,000	10,500	12-18	Preparation for enhancing energy efficiency in manufacturing of light commercial air-conditioning systems	Annex 2-A
Thailand	100,000	7,000	24	Development of Lifecycle Management Plan for Controlled Substances	Annex 2-B
Total	**330,000**	**23,100**			

Annex 1: Request for project preparation for investment projects in domestic and stand-alone commercial refrigerator manufacturing for Indonesia

1. Agency:	World Bank
2. Sector:	Refrigeration
3. HFC consumption in item #2 reported under country programme data?	☒ **Yes**, please specify reported amount and year: [redacted] ☐ **No**
4. Does the enterprise commit to phase out the HFC consumption associated with the proposed investment project, if approved by the Executive Committee?	☐ **Yes**, please provide support letter [redacted] ☒ **No** The enterprises' HFC consumption to be phased out will be determined during the preparation of the investment project.
5. If the project preparation is requested in advance of the KIP, did the Government provide a written commitment that the consumption associated with these investment projects, once approved, will be deducted from the country's starting point, once established?	☐ **Yes** ☒ **No** Investment projects will be submitted as part of the Stage I KIP.
6. Please explain briefly how the investment project would relate to the overarching strategy for the country, and when the final KIP will be submitted (decision 87/50(e))	Investment projects will contribute to Indonesia curbing the growth of HFCs and meet 10% reduction target during 2029-2034. The KIP Overarching Plan and Stage I will be submitted to ExCom meeting in 2025.

7. Information on sector consumption (specify previous year HFC consumption)

Substance	Consumption (metric tonnes)
HFC-134a	6,784.68 (2022)

8. Information on enterprise(s) for which funding is being sought

Enterprise	Year established	A5 ownership (%)	2023 HFC-134a consumption	
			metric tonnes	CO_2-eq. tonnes
PT. Fujisei Plastik Seitek	1997	100	10.09	14,429
PT. Haier Electrical Appliances	2012	100	24.08	34,434
PT Maspion Elektronik	1997	100	4.15	5,935
PT Hartono Istana Teknologi	1977	100	91.74	131,188
PT Sanken Argadwija	1994	100	7.97	11,397

9. Activities to be undertaken for preparation of the investment project and funding requested

Activity	Indicative funding (US $)	Bilateral/ implementing agency
Prepare investment project for 5 enterprises manufacturing stand-alone domestic refrigeration equipment to convert from HFC-134a refrigerant to hydrocarbons	80,000	World Bank
TOTAL	80,000	

Annex 2-A: Request for project preparation of energy efficiency project for Thailand

Title: Project preparation for enhancing energy efficiency in manufacturing of light commercial air-conditioning systems while transitioning to lower-GWP alternative refrigerants.

Objective: Improve energy efficiency by 10 to 20% in light commercial air-conditioning (AC) manufacturing in Thailand in parallel with total HFC-410A phaseout and replacement with low to lower GWP refrigerant.

Context: Thailand's chiller sector comprises large single and multi-split AC, VRF systems, ducted and package rooftop systems, and large water-cooled and air-cooled chillers. These units are both manufactured in and imported into Thailand. Within this sector, there is a segment of light commercial and commercial AC with cooling capacity from 50,000 – 240,000 BTU/hr. Of all the units sold in the domestic market, about 20% of AC are sold for commercial applications. Commercial AC units and systems are made by both international and local manufacturers.

These local manufacturers also make split-type AC and were beneficiaries of several initiatives including conversion support from R-22 to R-32 under the Stage I HCFC Phaseout Management Plan (HPMP) and technical assistance and transfer of inverter technology under an AC Manufacturing Readiness activity (financed by K-CEP).

Larger, commercial AC units did not convert to R-32 because of safety concerns surrounding larger charge size of R-32 which is an A2L substances and lack of appropriate standards and building codes. Since the time of the competition of the AC sector conversion in Thailand (2018), testing and standard development for these larger units (above 50,000 BTU/hr) have advanced led by action in Japan.

Thailand is embarking on the preparation of its Stage I Kigali Implementation Plan (KIP) whereby HFC action across sectors will be prioritized across the Kigali phasedown period. However, initial consultations with the AC industry which is the largest MP sector in dollar terms (Thailand is second to China in manufacturing AC components and systems in the world), indicate that this sector will be a priority given recent technological advances in the sector at non-Article 5 country manufacturers on refrigerant and energy performance (among others). Thailand's 2022 "HFC Phasedown Strategy Options for Initial Implementation of the Kigali Amendment," looked at three phasedown scenarios and concluded that a technology-based phasedown approach which prioritizes HFC conversions in the sectors based on availability and maturity of alternative technologies and minimizes early retirement of existing HFC-based equipment, yields the lowest costs among the three scenarios considered.

Thailand has an established mandatory minimum energy performance standard (MEPS) system for room AC and refrigeration equipment under the Department of Alternative Energy Development and Efficiency (DEDE) and a voluntary labeling program called Label No. 5 under Electricity Generating Authority of Thailand (EGAT). There is no MEPS for AC over 50,000 Btu, however energy performance is controlled at the building /end-user level.

The proposed project aims to convert light commercial AC manufacturing facilities which currently are R-410A based technology to low/lower GWP technology, and to extend MEPS to

cover AC with capacity larger than 50,000 BTU/hr. This presents an opportunity to improve energy efficiency by establishing an aggressive MEPS while phasing down HFCs and to increasing energy performance of all ACs manufactured and market in Thailand, including split-type AC with cooling capacity lower than 50,000 BTU/hr.

Concept for Improving EE in Large AC Systems: The proposal intends to introduce a dual approach of strengthening energy performance policy in air-conditioning and technical and investment support to the Thai-owned manufacturers (estimated to be 14-15 enterprises) to increase their production share of energy efficient light commercial and residential AC systems.

The cohort of companies will be supported to first select the pathway towards improving the energy performance in their products. The pathway chosen would dictate the type of technology transfer and capacity building needed. The technology support would allow the enterprises to design systems to effectively use and optimize inverter (R-32) based compressors (where possible), including how to program controls and install and repair the inverter box. The latter would reduce operating cost to consumers, which will make inverter AC more attractive. Expected project costs will be chiefly related to this technology transfer and capacity building. Only a small amount of investment would be likely required which will be confirmed during project preparation.

In order to quantify the CO_2 benefits accrued from the support to the manufacturers, the project would cover the costs of testing the energy performance of the companies' existing products. This would become the baseline against which to measure the energy savings from the new equipment post-project.

To scale up climate benefits possible from the use of variable speed compressors, the proposed EE project would pursue the strengthening and development of standards that promote uptake of high energy efficient compressors and the safe use of a larger charge size of R-32 through DEDE / Ministry of Energy and related EE standard bodies and institutes, in cooperation with the Ministry of Industry (where the national ozone unit in the Department of Industrial Works and the Thai Industrial Standard Institute sit). In order to understand how ambitious the MEPs can be increased; the project would include a market assessment of the current average EE and refrigerant used of units marketed in Thailand. Moreover, the study would assess other opportunities for EE improvement in the context of HFC phasedown.

Project preparation support: Preparation will determine what is required to help the companies in the sector design more efficient systems and source requisite parts, including R-32 variable speed compressors. It would confirm the number of proposed beneficiaries in the sector. Preparation work will also lead to determining the estimated amount of CO_2eq. in additional benefits that can be accrued. The actual target would be confirmed in project implementation subsequent to 1) testing enterprise products and 2) assessing the average energy performance of light commercial AC systems.

Preparation Budget for EE Improvement in the Thailand Light Commercial AC Sector

Activity	Planned Budget (US$)
Capacity needs assessment of enterprises and EE regulators (incl. travel)	30,000
Consultations with technology providers/suppliers in the Region (incl. travel)	20,000
Collection and analysis of model information per Dec. 94/60 at sector level	60,000
Design, development and vetting of the proposal	40,000
Total	**150,000**

Annex 2-B: Request for the Development of Lifecycle Management Plan for Controlled Substances for Thailand

MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL

FUNDING REQUEST FOR THE PREPARATION OF NATIONAL INVENTORIES OF BANKS OF USED OR UNWANTED CONTROLLED SUBSTANCES AND A PLAN FOR THE COLLECTION, TRANSPORT AND DISPOSAL OF SUCH SUBSTANCES, INCLUDING CONSIDERATION OF RECYCLING, RECLAMATION AND COST-EFFECTIVE DESTRUCTION

Part I: Project information

Project title:	**Preparation of a national inventory of banks of controlled substances and development of a national plan for management of these substances**	
Country:	**Thailand**	
Lead implementing agency:	**World Bank**	
Cooperating agency:	**(select)**	**N/A**
Meeting where request is being submitted	**95th**	
Implementation period	**2025-2027**	
Duration of implementation (i.e., time (in months)) from the approval of PRP to submission of the national inventory and action plan (please specify): 24 months		
Funding requested:		
Agency	**Funding requested (US $)***	
World Bank	**107,000 including support costs**	

*Details should be consistent with information provided in the relevant sections below.

Part II: Prerequisites for submission

Item	Yes	No
Official endorsement letter from Government, indicating roles of respective agencies (where more than one IA is involved), and that the national inventory/action plan will be completed within 24 months from the date of project approval	☐	☒
Project included in the bilateral/IA business plan?	☒	☐
If **NO**, please provide explanation: The endorsement letter is under preparation by the Government of Thailand and will be submitted as soon as possible.		

A. Information required for PRP funding request for the national inventories of banks of used or unwanted controlled substances and a plan for the collection, transport and disposal of such substances, including consideration of recycling, reclamation and cost-effective destruction

1. Brief overview of the the concept, methodology and approach to be taken for the preparation of the national inventory and / or action plan and how it is linked to other activities in the country (i.e., national plans like the KIP), in particular those activities in the refrigeration servicing sector such as recovery, recycling, and reclamation programmes
The project objective is to develop a life-cycle management plan for reducing demand for and emissions of Montreal Protocol (MP) controlled substances and which is financially self-sustaining over time. In order to

understand the feasibility of such a plan, the following is needed: i) the amount and type of currently installed controlled substances (i.e. "banks"); ii) the existing flow of and market for refrigerants and fire suppression agents and available infrastructure for tracking, monitoring, recovering and storing these chemicals; iii) the existing regulatory framework and system related to trade in chemicals and to waste management as well as recovery and recycling of MP controlled substances; iv) models and lessons learned from other countries that have a life-cycle management approach, or elements of an approach in place; v) technical capacity to analyze content and quality of reclaimed materials and purity standards of reclaimed materials required/expected by the market and how to ensure these are achieved; and vi) demand for recovered, recycled controlled substances within Thailand and the Region as well as options for destruction of F-gases that comply with MP requirements.

After understanding the current situation, the proposed activity will analyze the information and data collected, including estimating future streams (amounts and types of substances) for recovery, reuse or destruction. One of the main objectives will be in fact, to quantify real and sustained reductions in CO2eq. emissions that Thailand can claim in its Nationally Determined Contribution (NDC) and other climate related strategies and plans. Financial analysis, most critically the break-even cost for a viable, self-sustained scheme will be conducted. Design of a scheme, or business model, and required regulation, infrastructure and other investments to make it viable will be done in close consultation with the various stakeholders in the country as well as external players that have already some ideas and experience in the field. In the consultation process, business partnerships and public-private sector cooperation will be promoted. For the latter, linkages in the preparation of Thailand's Stage I Kigali Implementation Plan (KIP) and Stage III HCFC Phaseout Management Plan (HPMP III) will be made. Recommendations will be formulated to assist the country and stakeholders to institute and implement the proposed life-cycle management plan, building on the country's current import/export/destruction system, and to scale-up recovery, recycling and reuse of controlled substances across MP sectors and possibly across countries.

2. Description of activities that will be implemented during the preparation of the national inventories/action plans of banks for used and/or unwanted controlled substances and an indication of the estimated costs for the activities described broken down per agency

Activity	Description	Agency
Data collection	Data collection will determine the installed stock of refrigeration and cooling equipment, including estimates on the amount and types of refrigerant used. The focus will be on larger units. Part of data collection will entail research of bankable management models in non-A5 and other A5 countries. The study will also investigate current in-country capacity to analyze quality of recovered and reclaimed materials.	World Bank
Stakeholder consultations	Consultations with importers of controlled substances, major equipment suppliers, associations such as the Federation of Thai Industries, waste management and disposal operators, larger servicing shops and authorized dealers and regulators from ministries of industry, environment, energy and finance (Customs). Consultations with companies active in the Region that specialize in recovery, reclamation, disposal and tracing refrigerants and to the extent possible companies engaging in carbon market trading, will also be consulted.	World Bank
Analysis of data collected	Analysis of collected data and modelling of quantities of equipment and controlled substances that will be decommissioned, available for collection over time by type of substance. The focus will also be given to collection options to minimize transaction costs of a recovery and recycling (R&R) and disposal scheme. The break-even cost of R&R	World Bank

	and destruction will be calculated. Assessment of Thailand's existing infrastructure and regulatory framework for lifecycle management of controlled substances, including greening initiatives, and relevant rules under the 1992 Factory Act and the Hazardous Substance Act B.E. 2535 will be undertaken.	
Preparation of inventory report/national plan	A lifecycle management plan for controlled substances will be developed to track and manage refrigerants and possibly, fire suppression agents from first import through recovery and disposal (including destruction). The starting point for the plan, namely the existing inventory of controlled substances will be described as well as the results of the analysis, financing scheme and additional requirements if any, and recommendations for implementation, including needed infrastructure, facilities and equipment, and complementary actions needed or proposed in the new KIP and HPMP.	World Bank

3. Funding for the activities described in 2 above

Activity	Indicative funding (US $)	Agency
Data collection consultant	50,000	World Bank
In country stakeholder consultation	10,000	World Bank
Expert time for data analysis	15,000	World Bank
Expert time for designing a viable lifecycle management plan and sustainable business model	20,000	World Bank
Report preparation	5,000	World Bank
TOTAL		**100,000**

4. How will the Multilateral Fund gender policy be considered during project preparation?

Relevant stakeholders will be sensitized on gender policy including that of the Multilateral Fund to the degree possible and as relevant. Efforts will be made to encourage female stakeholders to contribute to the inventory and design of the proposed scheme/action plan for managing refrigerants and fire suppression agents and other related controlled substances. To the extent relevant, gender-disaggregated data will be collected (in the consultations and discussions with waste operators for example).