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COMITÉ EXÉCUTIF  
DU FONDS MULTILATÉRAL AUX FINS  
D'APPLICATION DU PROTOCOLE DE MONTRÉAL  
Quatre-vingt-douzième réunion  
Montréal, 29 mai – 2 juin 2023  
Point 9(c) de l'ordre du jour provisoire<sup>1</sup>

**PROGRAMME DE TRAVAIL DE LA BANQUE MONDIALE  
DE L'ANNÉE 2023**

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<sup>1</sup> UNEP/OzL.Pro/ExCom/92/1

## **OBSERVATIONS ET RECOMMANDATION DU SECRÉTARIAT DU FONDS**

1. La Banque mondiale demande au Comité exécutif d'approuver le montant de 390 000 \$ US, plus les coûts d'appui d'agence de 27 300 \$ US, pour son programme de travail pour 2023 qui figure au tableau 1. La proposition est jointe au présent document.

**Tableau 1 : programme de travail de la Banque mondiale de l'année 2023**

Pays	Activité/Projet	Montant demandé (\$ US)	Montant recommandé (\$ US)
<b>SECTION A : ACTIVITÉS RECOMMANDÉES AUX FINS D'APPROBATION GLOBALE</b>			
<b>A1 : préparation de projet pour les plans de mise en œuvre sur les HFC au titre de l'Amendement de Kigali (KIP)</b>			
Indonésie	Préparation d'un KIP (phase I)	220 000	220 000
Viet Nam	Préparation d'un projet d'investissement de KIP dans le secteur de la réfrigération domestique pour Aqua Electrical Appliances, Darling Electronics et Hoa Phat Refrigeration Engineering	80 000	80 000
	Préparation d'un projet d'investissement de KIP dans le secteur de la réfrigération commerciale pour Sanaky	30 000	30 000
	Préparation d'un projet d'investissement de KIP dans le secteur de la réfrigération industrielle pour Quang Thang Refrigeration	30 000	30 000
	Préparation d'un projet d'investissement de KIP dans le secteur des systèmes de climatisation embarqués pour Thaco Auto	30 000	30 000
Total partiel		390 000	390 000
Coûts d'appui à l'agence		27 300	27 300
Total global		417 300	417 300

### **SECTION A : ACTIVITÉS RECOMMANDÉES AUX FINS D'APPROBATION GLOBALE**

#### **A1 : Préparation de projet pour les plans de mise en œuvre sur les HFC au titre de l'Amendement de Kigali (KIP)**

##### **Description du projet**

2. La Banque mondiale a soumis une demande pour la préparation de la phase I du KIP pour l'Indonésie en tant qu'agence d'exécution désignée et quatre autres demandes pour la préparation de la phase I de projets d'investissement de KIP au Viet Nam dans le secteur de la réfrigération domestique, dans le secteur de la réfrigération commerciale, dans le secteur de la réfrigération industrielle, et dans le secteur des systèmes de climatisation embarqués, comme indiqué dans la section A1 du tableau 1. Le Viet Nam a reçu le financement pour la préparation de la phase I du KIP global lors de la 88<sup>e</sup> réunion.<sup>2</sup>

##### **Observations du Secrétariat**

3. Dans son examen de ces demandes, le Secrétariat a pris en compte les directives relatives à la préparation des KIP conformément à la décision 87/50 ; les activités proposées pour la préparation de projet et leur relation avec les activités de facilitation et les autres projets relatifs aux HFC dans le pays.

4. Le Secrétariat a noté que pour la préparation de la phase I du KIP, la Banque mondiale a fourni des descriptions des activités requises pour la préparation de la stratégie globale pour la phase I du KIP pour

<sup>2</sup> Décision 88/40 Annexe XIV du document UNEP/OzL.Pro/ExCom/88/79

l'Indonésie. La soumission inclut des données de consommation de HFC et de mélanges de HFC pour 2019 à 2021. Les activités de préparation du projet incluent l'examen du système d'octroi de licences et de quotas pour le contrôle et la supervision des HFC ; le renforcement de la capacité des officiers des douanes et des importateurs ; une étude nationale et une collecte des données sur la consommation de HFC ; l'analyse de l'utilisation des HFC et de ses produits de remplacement ; un examen des politiques et des législations liées à l'élimination des HFC ; un examen de l'approche nationale de la gestion et de l'élimination des SAO et des HFC ; le développement d'une stratégie d'élimination globale des HFC ; et la validation et les consultations des parties prenantes ; et le développement d'un plan de communication et de sensibilisation.

5. Le Secrétariat a noté que la préparation de la phase I du KIP couvrira aussi bien les secteurs de la fabrication que de l'entretien et a demandé quand il était prévu de soumettre les projets d'investissement ; a clarifié la durée de la préparation du projet et a noté la prise en compte de considérations de genre dans le développement de la stratégie globale. La Banque mondiale a confirmé que les demandes de préparation de projet d'investissement seront préparées après la collecte des données préliminaires et l'identification des secteurs prioritaires et qu'elle prévoit de soumettre celles-ci lors de la deuxième réunion de 2023 et qu'elle prévoit que la préparation du projet pour la phase I du KIP soit terminée après une durée de 12 à 18 mois.

6. Concernant les quatre demandes pour la préparation des projets d'investissement de KIP, le Secrétariat a noté que la Banque mondiale a fourni des descriptions des activités et que dans chaque secteur celles-ci incluent entre autres le développement de plans de conversion pour les installations de production, les équipements et les lignes de production comprenant des plans de gestion environnementale pour manipuler en sécurité des matériaux inflammables et/ou toxiques ; la collecte de documentation justificatifs pour confirmer la consommation de HFC par les entreprises ; la consultation des agences gouvernementales pertinentes sur l'utilisation de frigorigènes inflammables et/ou toxiques et sur les normes produit ; ainsi qu'une analyse basée sur le genre des politiques d'embauche dans chaque entreprise dans le contexte de la politique en matière d'égalité des sexes du Fonds multilatéral.

7. Le Secrétariat a observé que :

- (a) La préparation du projet d'investissement de KIP dans le secteur de la réfrigération domestique inclurait trois entreprises (Aqua Electrical Appliances, Darling Electronics et Hoa Phat Refrigeration Engineering) fabriquant des équipements de réfrigération autonomes et que les données de consommation de HFC pour 2019 à 2021 étaient fournies pour chaque entreprise. Le projet d'investissement concernerait la conversion de frigorigène HFC-134a aux hydrocarbures.
- (b) Pour le secteur de la fabrication de réfrigération commerciale, la préparation de projet d'investissement de KIP concernerait une entreprise (Sanaky) produisant des équipements de réfrigération commerciale autonomes pour laquelle les données de consommation de HFC pour 2019 à 2021 ont été fournies. Le projet d'investissement concernerait la conversion de frigorigène HFC-134a aux hydrocarbures.
- (c) Le projet dans le secteur de la réfrigération industrielle inclurait une entreprise (Quang Thang Refrigeration) qui fait partie du sous-secteur de l'assemblage et de l'installation locale fabriquant des composants de réfrigération industrielle (comme des évaporateurs et des condenseurs) et installant des systèmes de réfrigération industrielle. Le projet d'investissement aurait pour objectif de fournir une assistance technique à l'entreprise afin qu'elle fabrique des échangeurs de chaleur à base d'ammoniac pour remplacer les HFC et inclurait une composante de sensibilisation pour encourager les utilisateurs finals à sélectionner des systèmes de réfrigération industrielle à base d'ammoniac.

(d) La préparation du projet d'investissement de KIP dans le secteur des systèmes de climatisation embarqués s'adresserait à une entreprise de fabrication de véhicules (Thaco Auto), pour laquelle les données de consommation pour 2019 à 2021 ont été fournies. Les activités de préparation de projet incluent le support technique et la recherche et le développement pour développer des systèmes de climatisation embarqués plus efficaces basés sur un frigorigène de substitution en coopération avec les fournisseurs et partenaires de l'entreprise. Le projet d'investissement servirait à financer un projet de démonstration qui renforcerait une de ses usines pour y produire un modèle de véhicule équipé d'un système de climatisation embarqué au R-1234yf.

8. À la suite de cet examen, le Secrétariat a noté que les deux pays ont ratifié l'Amendement de Kigali ;<sup>3</sup> que les pays ont fourni une lettre d'approbation signifiant leur intention de prendre des mesures relatives à élimination des HFC ; et que la demande de financement est conforme à la décision 87/50(f)(v) concernant la préparation des projets d'investissement/plans sectoriels des KIP. Le Secrétariat a en outre noté que le Viet Nam n'a pas encore soumis son rapport de mise en œuvre du programme du pays (PP) pour 2022. La Banque mondiale a indiqué que les projets d'investissement seraient communiqués dans le cadre du KIP global et pas avant, et que toute la consommation réduite par ces entreprises en découlant serait déduite du point de départ, une fois l'accord du Comité exécutif obtenu ; et que le Viet Nam communiquerait son rapport de PP d'ici le 1er mai 2023.

### **Recommandation du Secrétariat**

9. Le Secrétariat recommande l'approbation globale du projet de préparation du plan de mise en œuvre sur les HFC au titre de l'Amendement de Kigali (KIP) pour l'Indonésie et pour la préparation des projets d'investissement de KIP dans le secteur de la réfrigération domestique, dans le secteur de la réfrigération commerciale, dans le secteur de la réfrigération industrielle, et dans le secteur des systèmes de climatisation embarqués, pour le Viet Nam au niveau de financement indiqué dans la section A1 du tableau 1.

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<sup>3</sup>Date de ratification (ou d'acceptation) de l'Amendement de Kigali : Indonésie (14 décembre 2022) et Viet Nam (27 septembre 2019).

# 2023 BUSINESS PLAN WORK PROGRAM



## WORLD BANK IMPLEMENTED MONTREAL PROTOCOL OPERATIONS

Presented to the  
92<sup>nd</sup> Meeting of the Executive Committee  
of the Multilateral Fund

3 April 2023

## 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 2023-2025 World Bank Business Plan which was approved by the Executive Committee at its 91<sup>st</sup> meeting.
2. The 2023-2025 World Bank Business Plan consists of investment and non-investment activities to assist Article 5 partner countries to comply with their HCFC reduction target during 2020-2024: 35% reduction from the baseline 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 2023-2025 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.

#### **2023 Work Program – 92<sup>nd</sup> ExCom**

4. The proposed 2023 Work Program being submitted for consideration at the 92<sup>nd</sup> Meeting of the Executive Committee, includes two (6) funding requests:
  - (i) one (1) for preparation of Kigali Implementation Plan overarching strategy for Indonesia
  - (ii) four (4) for preparation of HFC investment and demonstration projects for Vietnam
5. Brief description of the work program amendment activity requests are highlighted below.

**Table 1: Funding Requests Submitted for Consideration  
by the 92<sup>nd</sup> Meeting of the Executive Committee**

Country	Request (US\$)	Support Costs (US\$)	Duration (months)	Description	Supporting document
Indonesia	220,000	15,400	12-18	Preparation of Kigali Implementation Plan Stage I	Annex 1
Vietnam	80,000	5,600	6-12	Preparation of individual HFC projects (domestic ref.)	Annex 2-A
Vietnam	30,000	2,100	6-12	Preparation of individual HFC project (commercial ref.)	Annex 2-B
Vietnam	30,000	2,100	6-12	Preparation of individual HFC project (industrial ref.)	Annex 2-C
Vietnam	30,000	2,100	6-12	Preparation of individual HFC project (MAC)	Annex 2-D
<b>Total</b>	<b>390,000</b>	<b>27,300</b>			

**Annex 1: Request for project preparation of Kigali Implementation Plan for Indonesia**

**MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
KIP PROJECT PREPARATION REQUEST FORM  
KIGALI HFC IMPLEMENTATION PLAN (OVERARCHING)**

**Part I: Project Information**

<b>Project title:</b>	<b>Kigali HFC Implementation Plan Preparation</b>		
<b>Country:</b>	<b>Indonesia</b>		
<b>Lead implementing agency:</b>	<b>World Bank</b>		
<b>Implementation period:</b>	<b>July 2023 – December 2024</b>		
<b>Funding requested:</b>			
Agency	Sector	<b>Funding requested (US \$)</b>	
World Bank	Overarching	<b>220,000</b>	

**Part II: Prerequisites for submission**

<b>Item</b>	<b>Yes</b>	<b>No</b>
1. Official endorsement letter from Government specifying roles of respective agencies (where more than one IA is involved)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Ratification of the Kigali Amendment by Indonesia	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**A. Information required to support PRP funding (Overarching strategy)**

<b>1. Montreal Protocol compliance target to be met in stage I of the KIP</b>			
<b>Phase-down commitment</b>	<b>Freeze 10% reduction</b>	<b>Year of commitment</b>	<b>2024 2029</b>
<input type="checkbox"/> <b>Servicing only</b>	<input type="checkbox"/> <b>Manufacturing only</b>	<input checked="" type="checkbox"/> <b>Servicing and manufacturing</b>	
<b>2. Brief background on previous activities related to the Kigali amendment and the HFC phasedown</b>			
Indonesia completed an 2010-2012 HFC inventory with the financial support of the Climate and Clean Air Coalition in 2014 through cooperation with UNDP. The HFC enabling activities with support of the Multilateral Fund (MLF) was completed in November 2021 with the overall survey work was undertaken between 2019-2021 by ASHRAE Indonesia Chapter, with technical guidance and oversight provided by the National Ozone Unit (NOU) of the Ministry of Environment and Forestry and the World Bank.			
<b>3. Current progress in implementation of Enabling Activities for HFC phase-down (Completed) Budget: US\$ 250,000 (Fully disbursed)</b>			
<b>Activity</b>	<b>Description</b>		<b>Implementing agency</b>

Activities to facilitate early ratification of the Kigali Amendment	The Government of Indonesia ratified the Kigali Amendment on 14 December 2022.	World Bank		
Institutional arrangements	Review existing institutional arrangements for control of ODSs and HFCs, and conduct gap analysis for HFC control. Review and propose updating codes and standards for the efficient use of HFCs and ODS alternatives in the entire value chain	World Bank		
Data collection and analysis of HFCs consumption	Identify and collect HFC consumption and equipment containing HFCs in key sectors. Project consumption trends in key sectors under a BAU scenario.	World Bank		
Promoting energy efficiency improvement opportunities in the RAC sector	Review and assess policies and regulations related to energy efficiency in the RAC sector in Indonesia and other countries. Assessment of alternative technologies and identification of potential energy saving opportunities.	World Bank		
<b>4. Overview of current HFC consumption in metric tonnes by substance (last three years)</b>				
Substance	Sector	2019	2020	2021
HFC-23	Fire suppression	0.09	0.06	0.86
HFC-32	RAC manufacturing and servicing	779.05	782.42	1,477.36
HFC-125	Fire suppression	3.69	0	0
HFC-134a	RAC manufacturing and servicing	3,775.46	2,666.54	2,594.82
HFC-143a		0	0	0.23
HFC-152a	Others	3.57	12.12	14.40
HFC-227ea	Fire suppression	5.63	8.54	5.29
HFC-236fa	Fire suppression	2.50	1.54	16.00
HFC-245fa	Foam & Geothermal	56.11	505.01	202.00
R-404A	RAC manufacturing and servicing	721.44	522.88	293.32
R-407C	RAC manufacturing and servicing	356.09	250.95	191.26
R-407F	RAC manufacturing and servicing	0	0	0.07
R-410A	RAC manufacturing and servicing	1,121.77	1,075.97	1,050.30
R-417A	RAC manufacturing and servicing	37.63	19.25	3.66
R-422A	RAC manufacturing and servicing	0	69.50	51.98
R-422D	RAC manufacturing and servicing	0.15	0	0
R-427A	RAC manufacturing and servicing	0	0	0
R-438A	RAC manufacturing and servicing	0.91	3.52	0.92
R-449C	RAC manufacturing and servicing	0	0	0.06
R-507A	RAC manufacturing and servicing	120.24	72.80	26.07
R-508B	RAC manufacturing and servicing	0	0	0.14
R-513A	RAC manufacturing and servicing	0	0	0.95
<b>5. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)</b>				
HFCs are mainly used in the manufacturing and servicing of refrigeration and air-conditioning equipment. Other uses in Indonesia include fire suppression, aerosol, etc. The overall HFC				

consumption trends are aligned with Indonesia's economic growth which averaged 4.86 percent from 2000 until 2022, reaching an all time high of 7.16 percent in the fourth quarter of 2004 and a record low of -5.32 percent in the second quarter of 2020.

HFCs used in the RAC sectors are on an increasing trend given increasing urbanization, expansion of the middle class and regional HCFC phaseout in these sectors, particularly in unitary air-conditioning. Both HFC-32 and R-410A in room AC are experiencing double growth in consumption from 2015 to 2019. The development of the livestock, fisheries, processed food, chemical and pharmaceutical and drug industry has a major influence on the development of the cold chain industry in Indonesia and have affected the increase in cold chain demand. The Government of Indonesia has also issued several policies to support the development of the cold chain industry by the user industry, such as the fisheries sector. Indonesia manufactures vehicles for primarily domestic sales and thus requires HFC-134a for the initial charge of mobile air conditioning and contributed the largest amount of HFC-134a consumed. Consumption of HFCs used in the other sectors are also on an increasing trend.

#### **6. Description of information that needs to be gathered and updated. Explain why this has not been undertaken during HFC enabling activities.**

<b>Information needed</b>	<b>Description</b>	<b>Agency</b>
Others, specify.	Update Indonesia HFC survey (inclusion of actual 2022 and 2023 HFC consumption and analyze the impact of COVID-19 pandemic that may depress the demand of HFCs and HFC-based equipment during the baseline years (2020 – 2022), resulting in a lower HFC baseline than the previous estimate. Update HFC consumption projections for the immediate period (2023 – 2029) to assess potential compliance risk once demand returns to normal post COVID-19 pandemic.	World Bank

#### **7. Activities to be undertaken for project preparation and funding**

<b>Activity</b>	<b>Indicative funding (US \$)</b>	<b>Agency</b>
<b>1. Import and export control</b>		
1.1 Review of the national licensing and quota system to monitor and control the consumption of HFCs and HFC blends. Development of options in alignment with the preparation of the HFC phasedown strategy.	20,000	World Bank
1.2 Capacity building activities related to import/export licensing system including Customs and importers/exporters. Assistance in the development of options as necessary.	10,000	World Bank
<b>2. Data collection and analysis</b>		
2.1 Data collection by sector/sub-sector/HFC substance (2020-22)	50,000	World Bank
2.2 Stakeholder consultation: conducting interviews, organizing workshops and stakeholders' consultations on ODS alternatives and for the integration of national regulations and procedures for	25,000	World Bank

KA implementation and coordination of technical capacities in the institutions involved in HFC control		
2.3 Data analysis and development of BAU and growth modeling scenarios, sensitivity analysis, review of feasible options along with preparation of a related technology roadmap reflecting current and future HFC alternatives	25,000	World Bank
<b>3. Development of overarching strategy</b>		
3.1 Review and development of implementing policies and approaches as relevant and in the context of Indonesia's forthcoming national plan on the management and disposal of controlled ODS and GHGs, including inter-ministerial/agency and institutional arrangements for HFC phasedown.	10,000	World Bank
3.2 Development of the overarching strategy for the phase-down of HFCs and plan of action for stage I of the KIP to address the freeze and 10 per cent reduction in HFC consumption. HFC phase-down strategy development: Technical and legal experts to prepare all legal and technical documents; and if necessary, recommendations for update of institutional arrangements; consult all key stakeholders and develop detailed strategy.	50,000	World Bank
3.3 Development of and integration of the strategy for the phase-down of HFCs focusing on refrigeration servicing sector into the overarching strategy.	20,000	World Bank
<b>4. Outreach and communication</b>		
4.1 Preparation of a comprehensive communication and outreach plan in consultation with key stakeholders.	5,000	World Bank
4.2 Consultation with relevant stakeholders to identify challenges and conduct need assessment for development of outreach and communication methodology for the servicing sector.	5,000	World Bank
<b>TOTAL</b>	<b>220,000</b>	
<b>8. How will activities related to implementation of HPMP be considered during project preparation for Kigali Implementation Plan?</b>		
It is expected that there will be opportunities for synergies between the HPMP and the KIP, particularly in refrigeration and air-conditioning sectors that use both HCFCs and HFCs. Previous measures from the HPMPs in these sectors such as capacity building for technicians, can be integrated to a certain extent. However, there are other sectors that only use HFCs such as in the mobile air-conditioning and domestic refrigeration that were not addressed in the HPMPs. Moreover, integration of best practices in installed equipment maintenance related to energy performance was also not covered. Thus, the Kigali Implementation Plan will be broader and more complex undertaking than HCFC phase-out.		
<b>9. How will the Multilateral Fund gender policy be considered during project preparation?</b>		
The Government of Indonesia is aware of the Multilateral Fund gender policy contained in ExCom document 84/73, and the related Executive Committee decision 84/92. The project preparation will aim to advocate the importance of gender-responsive actions and provisions in developing the Kigali Implementation Plan. Relevant stakeholders will be sensitized on the gender policy and efforts will be		

made to encourage female stakeholders to contribute to the project preparation. To the extent possible, a gender-disaggregated data will be collected.

**Annex 2: Preparation funding requests for investment and demonstration projects for Vietnam**

- A.** Preparation funding request for investment projects in domestic refrigeration
- B.** Preparation funding request for an investment project in commercial refrigeration
- C.** Preparation funding request for an investment project in industrial refrigeration
- D.** Preparation funding request for an investment project in mobile air-conditioning

**A. PRP funding request for investment projects in domestic refrigeration**

1. Agency:	World Bank				
2. Sector:	Refrigeration				
3. HFC consumption in item #2 reported under country programme data?	<input type="checkbox"/> Yes, please specify reported amount and year: <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1em; vertical-align: middle;"></span> <input checked="" type="checkbox"/> No				
4. Does the enterprise commit to phase out the HFC consumption associated with the proposed investment project, if approved by the Executive Committee?	<input type="checkbox"/> Yes, please provide support letter <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Investment projects will be submitted as part of the final 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 Vietnam curbing the growth of HFCs and meet 10% reduction target in 2029. The KIP Overarching Plan and Stage I will be submitted to ExCom meeting in 2023.				
<b>7. Information on sector consumption (specify previous year HFC consumption)</b>					
Substance	Consumption (metric tonnes)				
HFC-134a	1,729.4 (2021)				
<b>8. Information on enterprise(s) for which funding is being sought</b>					
Enterprise	Year established	HFC consumption (metric tonnes) (last three years)			HFC phase-out to be achieved (metric tonnes and CO <sub>2</sub> -eq. tonnes)
		2019	2020	2021	
AQUA Electrical Appliances Vietnam	1998	46.5	25.0	15.0	TBD
Darling Electronics – Refrigeration	1999	2.8	2.0	1.5	TBD
Hoa Phat Refrigeration Engineering	2001	7.2	8.0	8.0	TBD
<b>9. Activities to be undertaken for preparation of the investment project and funding requested</b>					
Activity		Indicative funding (US \$)		Bilateral/implementing agency	
Prepare investment project for 3 enterprises manufacturing stand-alone domestic refrigeration equipment to convert from HFC-134a refrigerant to hydrocarbons		80,000		World Bank	
<b>TOTAL</b>		80,000			

**B. PRP funding request for investment projects in commercial refrigeration**

1. Agency:	World Bank				
2. Sector:	Refrigeration				
3. HFC consumption in item #2 reported under country programme data?	<input type="checkbox"/> Yes, please specify reported amount and year: <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1em; vertical-align: middle;"></span> <input checked="" type="checkbox"/> No				
4. Does the enterprise commit to phase out the HFC consumption associated with the proposed investment project, if approved by the Executive Committee?	<input type="checkbox"/> Yes, please provide support letter <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Investment projects will be submitted as part of the final 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 Vietnam curbing the growth of HFCs and meet 10% reduction target in 2029. The KIP Overarching Plan and Stage I will be submitted to ExCom meeting in 2023.				
<b>7. Information on sector consumption (specify previous year HFC consumption)</b>					
Substance	Consumption (metric tonnes)				
HFC-134a	1,729.4 (2021)				
<b>8. Information on enterprise(s) for which funding is being sought</b>					
Enterprise	Year established	HFC consumption (metric tonnes) (last three years)			HFC phase-out to be achieved (metric tonnes and CO <sub>2</sub> -eq. tonnes)
		2019	2020	2021	
SANAKY	1995	5.3	7.0	7.5	TBD
<b>9. Activities to be undertaken for preparation of the investment project and funding requested</b>					
Activity		Indicative funding (US \$)		Bilateral/implementing agency	
Prepare investment project for one enterprise manufacturing stand-alone commercial refrigeration equipment to convert from HFC-134a refrigerant to hydrocarbons.		30,000		World Bank	
<b>TOTAL</b>		30,000			

### C. PRP funding request for an investment project in industrial refrigeration

1. Agency:	World Bank				
2. Sector:	Refrigeration				
3. HFC consumption in item #2 reported under country programme data?	<input type="checkbox"/> Yes, please specify reported amount and year: <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1em; vertical-align: middle;"></span> <input checked="" type="checkbox"/> No				
4. Does the enterprise commit to phase out the HFC consumption associated with the proposed investment project, if approved by the Executive Committee?	<input type="checkbox"/> Yes, please provide support letter <input checked="" type="checkbox"/> No <p>The enterprises' HFC consumption to be phased out will be determined during the preparation of the investment project.</p>				
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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <p>Investment projects will be submitted as part of the final KIP.</p>				
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 Vietnam curbing the growth of HFCs and meet 10% reduction target in 2029. The KIP Overarching Plan and Stage I will be submitted to ExCom meeting in 2023.				
7. Information on sector consumption (specify previous year HFC consumption)					
Substance	Consumption (metric tonnes)				
HFC-134a	1,729.4 (2021)				
R-404A	495.1 (2021)				
8. Information on enterprise(s) for which funding is being sought					
Enterprise	Year established	HFC consumption <sup>1</sup> (metric tonnes) (last three years)			HFC phase-out to be achieved (metric tonnes and CO <sub>2</sub> -eq. tonnes)
		2019	2020	2021	
Quang Thang Refrigeration	2003	59.9	75.3	90.0	TBD
9. Activities to be undertaken for preparation of the investment project and funding requested					
Activity	Indicative funding (US \$)			Bilateral/implementing agency	
Prepare an investment project for the local installation and assembly subsector. Quang Thang manufactures industrial refrigeration components (evaporator & condenser) and also installs industrial refrigeration systems for their customers. The project would comprise investment activities to assist Quang Thang to manufacture heat exchangers for use with ammonia and include end-user component to adopt ammonia-based industrial refrigeration systems instead of choosing HFCs.	30,000			World Bank	
<b>TOTAL</b>	<b>30,000</b>				

<sup>1</sup> Based on installations at customers

**D. PRP funding request for an investment project in mobile air-conditioning**

1. Agency:	World Bank				
2. Sector:	Mobile Air-conditioning				
3. HFC consumption in item #2 reported under country programme data?	<input checked="" type="checkbox"/> Yes, please specify reported amount and year: <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span> <input type="checkbox"/> No				
4. Does the enterprise commit to phase out the HFC consumption associated with the proposed investment project, if approved by the Executive Committee?	<input type="checkbox"/> Yes, please provide support letter <span style="background-color: #cccccc; display: inline-block; width: 150px; height: 1.2em; vertical-align: middle;"></span> <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Investment projects will be submitted as part of the final 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 Vietnam curbing the growth of HFCs and meet 10% reduction target in 2029. The KIP Overarching Plan and Stage I will be submitted to ExCom meeting in 2023.				
<b>7. Information on sector consumption (specify previous year HFC consumption)</b>					
Substance		Consumption (metric tonnes)			
HFC-134a		1,729.4 (2021)			
<b>8. Information on enterprise(s) for which funding is being sought</b>					
Enterprise	Year established	HFC consumption (metric tonnes) (last three years)			HFC phase-out to be achieved (metric tonnes and CO <sub>2</sub> -eq. tonnes)
		2020	2021	2022	
THACO AUTO	1997	40.7	48.8	65.2	TBD
<b>9. Activities to be undertaken for preparation of the investment project and funding requested</b>					
Activity		Indicative funding (US \$)		Bilateral/implementing agency	
A demonstration activity is proposed at one local car company to enhance one of its plants to manufacture one vehicle model equipped with R-1234yf mobile air-conditioning system. Preparation of investment activities will be in cooperation with its partner and suppliers of MAC components (compressor, evaporator/condenser, hoses) and include investments, TA and R&D to develop more efficient MACs that use alternative refrigerant. Its pathway to this transition would be documented for the remaining vehicle manufacturers and accompanied by concrete evidence to inform transport policy under Vietnam's national policy, strategy and action plan.		30,000		World Bank	
<b>TOTAL</b>		30,000			