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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-fourth Meeting
Montreal, 27-31 May 2024
Item 9(d) of the provisional agenda¹

PROJECT PROPOSAL: BURKINA FASO

This document consists of the comments and recommendation of the Secretariat on the following project proposal:

Phase-down

- Kigali HFC implementation plan (stage I, first tranche)

Government of
Germany

¹ UNEP/OzL.Pro/ExCom/94/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Burkina Faso

PROJECT TITLE	AGENCY
Kigali HFC implementation plan (stage I)	Government of Germany (lead)

LATEST ARTICLE 7 DATA (Annex F)	Year: 2022	257.00 mt	401,625 CO ₂ -eq tonnes
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SECTORAL HFC CONSUMPTION DATA (CO₂-eq tonnes) AND ACTIVITIES

	Aerosol	Foam	Fire-fighting	AC and refrigeration			Servicing	Solvent	Other
				Manufacturing					
				Refrigeration	AC	Other			
Latest CP report (2023)	0.00	0.00	0.00	0.00	0.00	0.00	283.60	0.00	0.00
KIP stage I activities as agreed (Y/N)	N	N	N	N	N	N	Y	N	N

AVERAGE 2020-2022 HFC CONSUMPTION IN SERVICING	270.12 mt	431,713 CO ₂ -eq tonnes
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BASELINE CONSUMPTION DATA (CO₂-eq tonnes)	2020	2021	2022	Average 2020-2022
HFC annual consumption	509,029	384,485	401,625	431,713
HCFC baseline (65%)				617,810
HFC baseline				1,049,523

HFC CONSUMPTION ELIGIBLE FOR FUNDING

Starting point for sustained aggregate reductions	TBD
Previously approved HFC phase-down investment projects	No
Aggregate reductions from previously approved projects (CO ₂ -eq tonnes)	n/a

PROJECT DATA AS AGREED	2024*	2025	2026	2027	2028	2029	Total		
Consumption (CO ₂ -eq tonnes)	Montreal Protocol limits	1,049,523	1,049,523	1,049,523	1,049,523	1,049,523	944,571	n/a	
	Maximum allowable	816,746	816,746	816,746	816,746	816,746	735,075	n/a	
	Maximum allowable (%)	78%	78%	78%	78%	78%	70%	n/a	
Amounts recommended in principle (US \$)	Government of Germany	Project costs	162,500	0	0	162,500	0	0	325,000
		Support costs	21,125	0	0	21,125	0	0	42,250
		Total project costs	162,500	0	0	162,500	0	0	325,000
		Total support costs	21,125	0	0	21,125	0	0	42,250
		Total funds	183,625	0	0	183,625	0	0	367,250

* Recommended for approval at the present meeting.

Reduction from stage I in CO ₂ -eq tonnes	314,448
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Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

1. The present document contains the following sections:
 - I. Summary of the proposal as submitted
 - II. Background: Implementation status of the country's HCFC phase-out management plan and previous HFC-related projects
 - III. HFC consumption: Overview of the country's HFC consumption levels, trends, and sectoral uses
 - IV. Stage I of the Kigali HFC implementation plan, as submitted: Overarching strategy and plan of implementation for the first tranche
 - V. Secretariat's comments, including the agreed cost of activities
 - VI. Recommendation

I. Summary of the proposal as submitted

2. On behalf of the Government of Burkina Faso, the Government of Germany as the designated implementing agency has submitted a request for stage I of the Kigali HFC implementation plan (KIP), in the amount of US \$1,207,600, plus agency support costs of US \$142,836, as originally submitted.²

3. The implementation of stage I of the KIP will assist the Government of Burkina Faso in reaching by 1 January 2029 a consumption level of 623,266 CO₂-eq tonnes, as originally submitted. This level of consumption corresponds to a 30 per cent reduction³ from an estimated HFC baseline calculated by the country based on HFC consumption for the years 2019 to 2021, or 40 per cent of the HFC established baseline.

4. The first tranche of stage I of the KIP being requested at this meeting amounts to US \$603,800, plus agency support costs of US \$78,494 for the Government of Germany, as originally submitted, for the period of June 2024 to June 2027.

II. Background

Status of implementation of the HCFC phase-out management plan

5. Table 1 presents information on the HPMP in Burkina Faso as of May 2024.

Table 1. HPMP implementation status for Burkina Faso

	Stage I	Stage II
Meetings when HPMP was approved/updated	62 nd /70 th /80 th	92 nd
Reduction from baseline	35% by 2020	100% by 2030
Total project cost (US \$)	630,000	1,290,000
Date of completion (actual/planned)	31 December 2021	31 December 2031

² As per the letter of 2 February 2024 from the Ministry of Environment of Burkina Faso to the Secretariat.

³ The initial consumption proposed for 2024 and 2029 were, respectively, 890,380 and 623,266 CO₂-eq tonnes

Status of implementation of previous HFC-related activities

6. Table 2 presents an overview of activities implemented in Burkina Faso in the context of the Kigali Amendment that have been funded by the Multilateral Fund.

Table 2. Previously approved HFC-related activities in Burkina Faso

Approval meeting	Project title	Implementing agency	Cost (US \$)	Date of completion
74 th	Survey of ODS alternatives	UNEP	55,000	August 2017
80 th	Enabling activities for HFC phase-down	UNIDO	150,000	June 2021

III. HFC consumption overviewHFC consumption levels

7. Burkina Faso imports HFCs for use in the refrigeration and air-conditioning (RAC) servicing, mobile air-conditioning (MAC) servicing, and manufacturing/assembling of commercial and refrigeration systems. The most consumed substances in 2023 were HFC-134a (78.5 per cent of total HFC consumption in CO₂-equivalent (CO₂-eq) tonnes), R-410A (14.2 per cent), R-404A (6.2 per cent), and other HFCs (1.1 per cent). Table 3 presents the country's HFC consumption as reported to the Ozone Secretariat under Article 7 of the Montreal Protocol.

Table 3. HFC consumption in Burkina Faso (2019–2023 Article 7 data)

HFC	GWP	2019	2020	2021	2022	2023*
Metric tonnes (mt)						
HFC-32	675.00	0.34	0.34	0.84	1.00	1.20
HFC-134a	1,430.00	333.26	259.94	207.70	222.00	242.90
R-404A	3,921.60	17.72	17.72	9.22	7.20	7.00
R-407C	1,773.85	3.39	3.39	2.72	2.20	2.30
R-410A	2,087.50	33.61	29.50	22.00	24.60	30.20
Total (mt)		388.32	310.89	242.48	257.00	283.60
CO₂-eq tonnes						
HFC-32	675.00	230	230	567	675	810
HFC-134a	1,430.00	476,562	371,714	297,011	317,460	347,347
R-404A	3,921.60	69,491	69,491	36,157	28,236	27,451
R-407C	1,773.85	6,013	6,013	4,825	3,902	4,080
R-410A	2,087.50	70,161	61,581	45,925	51,353	63,043
Total (CO₂-eq tonnes)		622,456	509,029	384,485	401,625	442,731

* Country programme (CP) data

Established HFC baseline

8. The Government of Burkina Faso reported the Article 7 data for 2020-2022. The country's HFC consumption baseline was established at 1,049,523 CO₂-eq tonnes by adding 65 per cent of its HCFC baseline (expressed in CO₂-eq tonnes) to its average HFC consumption in 2020-2022, as shown in table 4.

Table 4. HFC baseline calculation for Burkina Faso (CO₂-eq tonnes)

Baseline calculation components	2020	2021	2022
HFC annual consumption	509,029	384,485	401,625
HFC average consumption in 2020-2022			431,713
HCFC baseline (65%)			617,810
HFC baseline			1,049,523

Country programme implementation report

9. The sectoral HFC consumption data provided by the Government of Burkina Faso in its CP implementation report for 2022 is consistent with the data reported under Article 7 of the Montreal Protocol.

HFC consumption trends

10. The reduction of HFC consumption observed in Burkina Faso from 2020 to 2021 was due to the COVID-19 pandemic effects on the country's economy. Since 2022, the HFC consumption is reflecting the increased demand for RAC appliances due to the country's economic recovery. The demand for HFCs is also expected to continue rising as a consequence of the HCFC phase-out and the challenges to introduce zero/low-GWP alternatives.

HFC consumption by sector

11. HFCs are mainly consumed in the RAC servicing sector in Burkina Faso. The KIP states that there is also consumption in the assembly sector comprising of 26 enterprises manufacturing and assembling refrigeration systems and cabinets. However, the consumption in this sector was included under the servicing consumption in the country's CP data submission rather than being reported separately. HFCs are mainly consumed for servicing in mobile air-conditioning (MAC) (value 38.70 per cent in mt and 31.8 per cent in CO₂-eq tonnes), followed by commercial refrigeration (35.7 per cent in mt and 42.3 per cent in CO₂-eq tonnes), domestic refrigeration (13.3 per cent in mt and 11.0 per cent in CO₂-eq tonnes), and residential and commercial air-conditioning (AC) (10.8 per cent in mt and 12.6 per cent in CO₂-eq tonnes), as shown in tables 5 and 6.

Table 5. HFC consumption in Burkina Faso by sector in the refrigeration and AC servicing subsectors in mt (2023)

Sector	HFC-32	HFC-134a	R-404A*	R-407C	R-410A	Total	Share of total (%)
Refrigeration and AC servicing							
Refrigeration subsectors							
Domestic	0.00	41.08	0.00	0.00	0.00	41.08	13.3
Commercial	0.00	82.24	27.82	0.00	0.00	110.06	35.7
Industrial	0.00	2.38	2.38	0.00	0.00	4.76	1.5
Air-conditioning subsectors							
Residential and commercial	1.20	0.30	0.00	1.69	30.20	33.39	10.8
Mobile	0.00	119.28	0.00	0.00	0.00	119.28	38.7
Total	1.20	245.28	30.20	1.69	30.00	308.57	100

* The consumption of R-404A in the CP report is going to be reconfirmed

Table 6. HFC consumption in Burkina Faso by sector in the refrigeration and AC servicing subsectors in CO₂-eq tonnes (2023)

Sector	HFC-32	HFC-134a	R-404A*	R-407C	R-410A	Total	Share of total (%)
Refrigeration and AC servicing							
Refrigeration subsectors							
Domestic	0	58,744	0	0	0	58,744	11.0
Commercial	0	117,603	109,099	0	0	226,702	42.3
Industrial	0	3,403	9,333	0	0	12,737	2.4
Air-conditioning subsectors							

Sector	HFC-32	HFC-134a	R-404A*	R-407C	R-410A	Total	Share of total (%)
Refrigeration and AC servicing							
Residential and commercial	810	429	0	2,998	63,043	67,279	12.6
Mobile	0	170,570	0	0	0	170,570	31.8
Total	810	350,750	118,432	2,998	63,043	536,033	100%

* The consumption of R-404A in the CP report is going to be reconfirmed

Refrigeration and air-conditioning servicing sector

12. There are approximately 1,215 technicians and 547 workshops (508 for RAC servicing and 39 for MAC servicing) consuming HFCs in Burkina Faso. There is still a large informal group of technicians and workshops, not registered officially, which are partially reachable by the two major RAC associations.

13. There are eight vocational centres and two centres of excellence situated in the Capital and Midwest regions. The centres of excellence are also vocational training centres but in addition play the role of key technology hubs.

Domestic, commercial, and industrial refrigeration servicing

14. Domestic refrigerators including refrigerator/freezer combinations use mainly HFC-134a and R-600a for the newer models. The Customs' import data shows a fourfold increase in the number of units imported into the country in last six years. The majority of these imports are second-hand units; however, the data does not record whether they are based on HFC-134a or R-600a, nor the charge of the equipment. A market study developed under the "Ozone and Climate Friendly Cooling in West and Central Africa" (ROCA) project estimated that 70 per cent of the equipment in the domestic refrigeration sector is based on HFC-134a and 30 per cent is based on R-600a.

15. The commercial refrigeration sector is composed mainly of plug-in cabinets. Equipment such as centralised cooling systems for supermarkets and display cases is limited, while the use of condensing units is common. Most likely the import of bottle coolers, chest refrigerators, icemakers and freezers are accounted for under domestic refrigeration. With improved import declaration procedures, it is expected that there will be a better understanding of the difference between domestic and commercial refrigeration. The sector is dominated by HCFC-22, HFC-134a and R-404A and installed units are estimated as less than 80,000 units.

16. The industrial refrigeration sector includes industrial machinery or process cooling, chillers, and industrial icemakers, and it is small compared to the other refrigeration sectors.

Residential and commercial air-conditioning servicing

17. The Customs' import data shows that there has been an increase in the import of air conditioners on the last four years. Over 400,000 installed units of stationary air conditioners are estimated, and the refrigerant used is mainly HCFC-22, followed by R-407C, HFC-32 and R-290. Market research from ROCA indicates the market share of various types on air conditioners used in the country, the majority of which are small to medium units with fixed speed models (57 per cent) and small to medium inverter models (42 per cent), with very limited quantity of larger units.

Mobile air-conditioning servicing

18. Automobiles, buses, and refrigerated trucks are included in this sector that accounts for almost 50 per cent of the HFC-134a use in the country. The ROCA study evidenced that there are more than 300,000 private air-conditioned vehicles and that the sole refrigerant used is HFC-134a.

Commercial refrigeration manufacturing and assembly subsector

19. There are 26 small local enterprises manufacturing and assembling refrigeration systems and cabinets, either from existing refrigeration units or newly building. These refrigeration systems are widespread as they are used for the sale of ice packs. The refrigerants used for this subsector are HCFC-22, HFC-134a, R-404A, R-410A and the number of units assembled per enterprise varies between five and 30 units per year. The type of equipment used by these enterprises are cutting and metal working machines, brazing and welding equipment, and general refrigeration equipment.

IV. Stage I of the Kigali HFC implementation plan as submittedInstitutional, policy and regulatory framework

20. The Government ratified the Kigali Amendment in 2018 and established a licensing system for the import and export of HFCs in 2021, with the quota system for HFCs effective in 2024. The country continues to harmonize ODS policies with the sub-regional ODS regulation, which is applicable to the eight members of the Union Économique et Monétaire Ouest Africaine (UEMOA).⁴ The national ozone unit (NOU) continues to issue the required authorization for the import of equipment using controlled substances including HCFCs and HFCs.

21. The legal framework for managing toxic and flammable refrigerants is included in the ODS law; and International Electrotechnical Commission (IEC) safety standards related to refrigeration, AC and heat pumps have been adopted⁵ and will enter into force in 2025. Other codes and standards for the safe handling of low-GWP refrigerants will be discussed, adapted and introduced during stage II of the HPMP.⁶

22. Burkina Faso is applying, on a voluntary basis, the Minimum Energy Performance Standards (MEPS) of the West African region (ECOWAS) established in 2017 and there is an on-going effort to update the MEPS for the RAC sector and to make it mandatory. Activities intended to create framework conditions to enable implementation of the adopted MEPS were approved under stage II of the HPMP.

Phase-down strategy for stage I of the Kigali HFC implementation plan*Overarching strategy*

23. The overarching strategy of stage I, as initially submitted, proposed to eliminate 426,257 CO₂-eq tonnes by application of a set of overarching measures to support the HFC phase-down and the enhancement of the energy efficiency of RAC equipment, developing a scheme for establishing two

⁴ Règlement No: 04/2005/CM/UEMOA: Sub-regional regulation adopted in 2005 that supersedes other ODS-related regulations, which can be used by customs authorities in eight UEMOA member countries to restrict the entry of ODSs and ODS-based equipment.

⁵ The following standards ISO 5151:2017, CEI 62552-1:2015, CEI 62552-2:2015, and CEI 62552-3:2015 are adopted and determine the characteristics of performance and test methods, while IEC 60335-2-24 and IEC 60335-2-34 are related to safety of household refrigeration appliances and compressors.

⁶ IEC 60335-2-40: 2018 and IEC 60335-2-89: 2019 to determine safety requirements for electric heat pumps, air conditioners and dehumidifiers and commercial refrigerating appliances with a built-in or remote refrigerant or compressor. EN 378: Refrigerating systems and heat pumps - safety and environmental requirements.

centres for HFC reclaiming and refilling cylinders, technical assistance for the conversion of 26 manufacturing and assembly enterprises, supporting vocational training institutes to certify technicians in the use of R-290 in commercial refrigeration, implementing a low-GWP technology demonstration in cold rooms and refrigerated small trucks, and delivering training, awareness-raising and capacity-building programmes.

24. After discussions between the Secretariat and the Government of Germany, stage I proposes to eliminate 314,448 CO₂-eq tonnes of HFCs, reducing the country's HFC consumption by 30 per cent of its established HFC baseline level by 2029. The revised proposal prioritizes the strengthening of the regulatory framework to reduce the HFC supply and demand, including stakeholders' consultations and capacity building of government officers on updated regulations; implementing the register and certification of servicing and manufacturing workshops; training on good servicing practices to reduce HFC-134a consumption in the MAC sector, where no alternatives are available yet; and training on hydrocarbon (HC) refrigerants for condensing units, and commercial plug-in units.

Proposed activities

25. The activities proposed in stage I of the KIP will support the country in meeting the first two phase-down targets of the Kigali Amendment. As submitted, the budget for stage I was established at US \$1,207,600, and subsequently revised to US \$325,000, as explained in paragraphs 32 a 41 below. The proposed and agreed activities and their costs are presented in table 7.

Table 7. Activities proposed and agreed for implementation of stage I of the KIP for Burkina Faso

#	Activities as Submitted	Cost as submitted (US \$)	Activities as Agreed	Agreed cost (US \$)
1	Overarching strategy			
	Strengthening HFC import controls by adjustments to the HFC quota system, connecting the NOU with the online Customs enforcement system (SILVIE) to issue the refrigerant permits, and monitoring the supply market of HFCs; assessing regulations for banning the import of some categories of HFC-based equipment, and adjustment of standards as needed; introducing energy efficiency mandatory labelling of RAC equipment, and capacity building for government officers on updated standards	53,000	Strengthening HFC import controls by adjustments to the HFC quota system, connecting the NOU with the online Customs enforcement system (SILVIE) to issue the refrigerant permits, and monitoring the supply market of HFCs; drafting regulation for a ban on the import of HFC-based domestic refrigeration equipment and modifying the public procurement regulation to ban the acquisition of air conditioners based on high-GWP refrigerants, introducing mandatory labelling of refrigerant quality and energy efficiency of RAC equipment, and capacity building of government officers on updated standards	38,000
	Monitoring the application of labeling and verification of the energy efficiency equipment certification tests from an accredited laboratory	40,000		
	Developing a certification mechanism for workshops and technicians using HC-based commercial refrigeration	15,000	Developing a certification mechanism for workshops and technicians using HC-based commercial refrigeration	15,000
	Consultation with main stakeholders on developing an extended producer responsibility scheme and development of legislation	30,000	Consultation with main stakeholders on developing an extended producer responsibility scheme and development of legislation	15,000
	Awareness and outreach actions on the KIP measures and projects	10,000	Hiring a specialist in communication and awareness and outreach actions on the KIP measures and project	30,000
	<i>Subtotal</i>	<i>148,000</i>	<i>Subtotal</i>	<i>98,000</i>

#	Activities as Submitted	Cost as submitted (US \$)	Activities as Agreed	Agreed cost (US \$)
2	Introduction of refillable cylinders and reclaim centres			
	Procurement of equipment ⁷ and establishment of two refrigerant reclaim centres in the two major cities of the country	360,000	Establishing a refrigerant distribution centre for HC refrigerants for commercial refrigeration (i.e., R-290 and R-600a)	95,000
	Procurement of filling station equipment including at minimum two hubs for refillable cylinders, 1 hub for a 1 kg cylinder and 1 hub for 6 to 60 kg cylinders for the refrigerant distribution and reclaim centres in the two major cities of the country	180,000	Acquiring 70 refrigerant cylinders	7,000
	Safety items, two gas sensors, warning lamps, emergency shut-off and power off switch	20,000	Two workshops presenting to stakeholders the time frame and modalities of HC refrigerant availability	10,000
	One refrigerant identifier per centre	36,000		
	Coordination with main stakeholders on the legal framework for the refrigerant distribution and reclaim centres and awareness raising for refrigerant importers to access and use the site, including standards for the use of refillable cylinders (e.g., EN 378) importation restrictions on one-way cylinders, and mandatory recovery and recycling	20,000		
	<i>Subtotal</i>	<i>616,000</i>	<i>Subtotal</i>	<i>112,000</i>
3	Awareness, training and capacity building			
	Training and capacity building importers and staff of the refrigerant distribution and recycling centres, and outreach workshops addressing main stakeholders	40,000	Training and capacity building of importers and staff from the HC refrigerant distribution centre	10,000
			Two practical workshops for capacity building on good practices in the MAC servicing sector	20,000
	<i>Subtotal</i>	<i>40,000</i>	<i>Subtotal</i>	<i>30,000</i>
4	Technical assistance for the commercial refrigeration manufacturing and assembly sector			
	Acquiring 26 tool kits for the conversion of bottle and ice cooler manufacturers	249,600		
	Acquiring five tool kits for condensing units for training purposes	25,000	Acquiring three tool kits of condensing units for training purposes	15,000
	Preparing training documents and conducting five capacity building workshops on servicing to R-290 based commercial equipment	55,000	Preparing training documents and conducting five capacity building workshops on servicing R-290 based commercial equipment	55,000
	<i>Subtotal</i>	<i>329,600</i>	<i>Subtotal</i>	<i>70,000</i>
5	Technology demonstration			
	Demonstration of the performance of a cold room with CO ₂ subcritical technology and a small track operating with R-290 in their refrigeration system; monitoring and verification of the HFC consumption and energy efficiency saving; organizing theoretical and practical training for trainers, developing of training courses, and materials	39,000		

⁷ One reclaim unit of 6 kg/min, capacity 160 kg (380V/50Hz/3 ph) with a set of accessories for HCFC-22, HFC-134a, R-410A, and R-407C; a high flow recovery unit; two 900-liter storage tanks and roll drum and six 1000 lb storage cylinder upright; compressor unit for charging storage cylinder from reclaim unit; weighting scales for different range of cylinders and storage tanks; various set of hoses and valves for connecting reclaim unit to cylinders; and a re-usable cylinder labelling software and printer.

#	Activities as Submitted	Cost as submitted (US \$)	Activities as Agreed	Agreed cost (US \$)
	<i>Subtotal</i>	<i>39,000</i>		
6	<i>Project coordination and implementation</i>	<i>35,000</i>	<i>Project coordination and implementation</i>	<i>15,000</i>
	TOTAL PROPOSED	1,207,600	TOTAL AGREED	325,000

Project coordination and implementation

26. Project coordination and implementation activities were requested at a cost of US \$35,000 to support the NOU in the KIP implementation and coordination with the representatives of the National Energy Efficiency Action Plan. The funding would be allocated for hiring consultants (US \$15,000), monitoring travels (US \$10,000), and conducting coordination meetings (US \$10,000).

Gender policy implementation

27. The RAC sector in Burkina Faso is dominated by men with very little participation by women. During the implementation of stage I of the KIP, all efforts will be made to incorporate gender mainstreaming into all project activities, encouraging role models to provide valuable insights, motivating other women participants to come forward and join the sector or benefit from initiatives under this sector. Furthermore, in line with the Multilateral Fund indicators, gender disaggregated data will be collected for each activity and reported during the submission of the second tranche and in the final report.

Coordination of activities in the servicing sector under HCFC phase-out and HFC phase-down plans

28. In line with decision 92/37(b)(i)d, the country is committed to optimizing the simultaneous implementation of stage II of the HPMP and stage I of the KIP while avoiding the duplication of efforts. The ongoing work under the HPMP will be complemented by the planned KIP activities in order to avoid uncontrolled growth of HFCs.

29. Activities implemented under the HPMP focus on strengthening and enforcing legislation and regulations related to HCFCs, enhancing the capacities of customs and enforcement officers to monitor and control the import and distribution of HCFCs, the training and certification of RAC technicians in good servicing practices, the provision of tools and refrigerant recovery and recycling equipment to vocational training institutes and some large repair shops, and additional activities to maintain energy efficiency in the refrigeration servicing sector. On the other hand, the KIP will focus on creating an environment conducive to the adoption of low-GWP alternatives, including strengthening the HFC import quota system and other regulatory measures, capacity building (training and certification) to promote proper servicing of equipment using low-GWP refrigerants, with a focus on the commercial refrigeration sector, the establishment of a refrigerant distribution centre for HC refrigerants to be used in the commercial refrigeration sector and training on good servicing practices for the MAC sector (which was not addressed under the HPMP). The schedule of HFC phase-down and HCFC phase-out commitments, and of the KIP and HPMP tranches, is presented in annex I to the present document, while activities to be implemented under the HPMP and the KIP are listed in annex II.

Total cost of stage I of the Kigali HFC implementation plan

30. The budget for stage I has been proposed at US \$1,207,600, out of which, US \$958,000 corresponds to activities in the RAC servicing sector and US \$249,600 is related to activities for the manufacturing/assembling enterprises. In the absence of cost funding guidelines, the funding requested for activities in the manufacturing/assembling enterprises is the best available estimate provided by the Government of Germany.

Implementation of the first tranche of stage I of the Kigali HFC implementation plan

31. The first funding tranche of stage I of the KIP was initially requested in the amount of US \$603,800. It would include activities, to be implemented between July 2024 and June 2027 as follows:

- (a) *Overarching strategy*: Strengthening HFC import controls by defining annual quotas for HFC imports, connecting the NOU with the online Customs Enforcement System (SILVIE) to issue the refrigerant import permits online, and monitoring the supply market of HFCs; drafting a regulation to ban the import of HFC-134a-based domestic refrigeration appliances, modifying the public procurement regulation to introduce a ban on the acquisition of high-GWP air conditioners; starting the process for adopting a refrigerant quality standard and energy efficiency mandatory labelling of RAC equipment and capacity building of at least 25 government officers on updated standards and regulations; starting the development of a certification mechanism for manufacturing and assembly workshops and HC-based refrigeration equipment; setting up the framework for introducing the application of labeling and the technical basis for the verification of energy efficiency equipment certification tests; hiring a specialist in communication and awareness and outreach actions on the KIP measures and project (US \$74,000);
- (b) *Refilling and reclaim*: Procurement of equipment⁸ and establishment of one refrigerant reclaim centre in one of the major cities of the country, including one refrigerant identifier (US \$308,000);
- (c) *Technical assistance for the commercial refrigeration manufacturing and assembly sector*: Acquiring 13 tool kits for the conversion of bottle and ice cooler manufacturers, three tool kits for condensing units for training purposes, and preparing training documents (US \$164,800);
- (d) *Technology demonstration*: Demonstration of the performance of a cold room with CO₂ technology; monitoring and verification of the HFC consumption and energy efficiency saving; organizing theoretical and practical training for trainers, developing of training courses, and materials (US \$19,500);
- (e) *Awareness raising and capacity building*: Training and capacity building importers and staff of the refrigerant distribution and recycling centres, and outreach workshops addressing main stakeholders (US \$20,000); and
- (f) *Project coordination and implementation*: Support to the NOU in the KIP implementation and coordination with the HPMP and the National Energy Efficiency Action Plan (US \$17,500).

⁸ One reclaim unit of 6 kg/min, capacity 160 kg (380V/50Hz/3 ph) with a set of accessories for HCFC-22, HFC-134a, R-410A, and R-407C; a high flow recovery unit; two 900 liter storage tanks and roll drum and six 1000 lb storage cylinder upright; compressor unit for charging storage cylinder from reclaim unit; weighting scales for different range of cylinders and storage tanks; various set of hoses and valves for connecting reclaim unit to cylinders; and a re-usable cylinder labelling software and printer.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

V. Comments

Overarching strategy

Consumption used as reference for HFC reductions and calculation of cost

32. Stage I of the KIP for Burkina Faso had estimated the HFC reductions and cost for activities in the servicing sector using as a reference the average HFC consumption for the years 2019 to 2021 of 313.90 mt. The Government of Germany explained that the inclusion of 2019 rather than 2022 was to reflect one year of consumption before the COVID-19 pandemic, which represented more realistically the servicing needs and expected HFC consumption growth.

33. While the Secretariat acknowledges the rationale provided to use the years 2019-2021 as reference for HFC reductions and funding in Burkina Faso, decision 92/37 provides a framework for the years to be used for the calculation of funding to ensure equal treatment to all countries. The Secretariat also recalled that the issue of the impact of the COVID-19 pandemic on the HFC baseline of countries was considered by the Parties at their 35th meeting, where decision XXXV/16 established some temporary special treatment⁹ to eight countries that expressed a concern to the Ozone Secretariat. Notwithstanding this special treatment given to some countries, the years used as reference to calculate the HFC consumption baseline and to calculate costs in the refrigeration servicing sector continues to be 2020 to 2022 for all countries, including those countries covered in decision XXXV/16. On this basis, the Secretariat suggested to use the years 2020 to 2022 as reference for the review of the project.

HCFC baseline

34. At the 80th meeting, in approving the third tranche of stage I of the HCFC phase-out management plan (HPMP), the Executive Committee noted the revision of the HCFC starting point for sustained aggregate reduction in HCFC consumption from 28.88 to 18.00 ODP tonnes based on the HCFC verification report showing that consumption between 2013 and 2016 was substantially lower than the HCFC consumption reported in the baseline years. At that time, UNEP, as lead implementing agency for the HPMP, indicated that the Government would discuss the issue with the Ozone Secretariat during the 29th Meeting of the Parties in order to make a decision about requesting a change to the HCFC baseline. However, the HCFC baseline remained unchanged.

35. The Secretariat notes that if the HCFC baseline would have been revised, the HCFC component in the HFC baseline would be lower. The Government of Germany confirmed that even though the HCFC baseline was not revised, in the preparation of the KIP, Burkina Faso used as reference for estimating reductions in HFC consumption an HCFC component based on the revised starting point of 18.00 ODP tonnes (however, as explained in the previous section, the years used for that calculation were 2019 to 2021). A comparison of the HFC established baseline and an estimated HFC baseline using 2020 to 2022 and the HCFC component based on the revised starting point rather than on the HCFC baseline is presented in table 9 below.

⁹ That the Implementation Committee under the Non-Compliance Procedure of the Montreal Protocol should defer, until 2026 data becomes available, any consideration of compliance status with regard to control measures for consumption of HFCs for eight countries, on the understanding that the countries will continue to make every effort to comply with these control measures.

Table 9. Comparison of established HFC baseline and estimated HFC baseline using a revised HCFC starting point

Components of the HFC baseline	Established HFC baseline		Estimated HFC baseline using the revised HCFC starting point	
	CO ₂ -eq tonnes	Percentage	CO ₂ -eq tonnes	Percentage
Average HFC consumption in baseline years	431,713	41	431,713	53
HCFC component of the HFC baseline	617,810	59	385,036	47
HFC baseline	1,049,523	100	816,750*	100

*There is a minor difference between this estimated HFC baseline, and the reference taken as maximum allowed consumption (816,746 CO₂-eq tonnes) due to rounding figures.

36. While the reductions in HFC consumption will be based on the established baseline, the Secretariat and the Government of Germany agreed to also take into consideration as a reference during the discussions, the estimated HFC baseline using the revised HCFC starting point.

Funds requested and proposed HFC reductions

37. Stage I of the KIP for Burkina Faso, as submitted, proposed the reduction of HFC consumption by 40 per cent of the established HFC baseline at a total cost of US \$1,207,600, to be considered on a case-by-base basis in line with decision 92/44. In analysing the proposal, the Secretariat noted the following:

- (a) The established HFC consumption baseline for Burkina Faso is 1,049,523 CO₂-eq tonnes, out of which 431,713 CO₂-eq tonnes (41 per cent) is the average HFC consumption in baseline years, and 617,810 CO₂-eq tonnes (59 per cent) corresponds to 65 per cent of the HCFC baseline, as shown in table 9;
- (b) With an average HFC consumption in servicing during baseline years of 270.12 mt, Burkina Faso is eligible to receive US \$325,000 to achieve a reduction of 10 per cent from the established HFC baseline, or US \$390,000 (20 per cent additional funding) if the country commits to a reduction of 10 per cent from the average HFC consumption in servicing during baseline years. This reduction is equivalent to a 63 per cent reduction from the HFC baseline; and
- (c) Based on decision 92/37, Burkina Faso is eligible to receive US \$390,000 to reduce 63 per cent of the baseline. The level of funds requested at US \$1,207,600 to reduce 40 per cent of the HFC baseline is not consistent with the decision and its application in the approval of previous KIPs for countries that opted to reduce 10 per cent of the average HFC consumption in baseline years.

38. The Secretariat and the Government of Germany discussed possible options for Burkina Faso in light of the existing decisions, the analysis above, and the specific activities included in stage I of the KIP. To be able to fund the activities proposed at US \$1.2 million, the level of HFC reduction would need to be beyond 63 per cent of the established HFC baseline, a level that the Government was not in a position to commit to given the expectations of HFC consumption growth to levels beyond those prior to the COVID-19 pandemic (i.e., in 2019 HFC consumption was 622,456 CO₂-eq tonnes).

39. Regarding the activities proposed, the Secretariat noted the following:

- (a) The establishment of two refrigerant distribution and recycling centres constituted around 50 per cent of the funds requested and did not include an analysis on whether the level of refrigerant used in the country justified such investment. Moreover, noting the difficulties that other Article 5 countries have encountered in establishing bans on non-refillable

cylinders, the Secretariat proposed an assessment of the overall risk and feasibility of this ban and the sustainability of the centres, and developing a business model to make the centres profitable in the first tranche of the KIP; and

- (b) The activity for the commercial refrigeration enterprises may be able to be considered separate from the servicing sector. To consider this, additional information is required from the beneficiary enterprises (e.g., dates of establishment, HFC consumption and production output for the last three years) and the HFC consumption in this sector should be clearly reported separate from that in the servicing sector in a revised Country Programme report for the baseline years.

40. Upon discussion of a meaningful set of activities that could assist Burkina Faso to achieve the stage I reductions with a level of funding consistent with the guidelines, as well as a realistic level of HFC reductions that could be achieved, the Government of Germany submitted a revised proposal to reduce 30 per cent of the established HFC baseline (or 10 per cent of the estimated baseline using a revised HCFC starting point) at a total value of US \$477,000. In the revised proposal, the establishment of two refrigerant distribution and recycling centres was replaced by the establishment of one centre mostly focused on refilling of HCs; some activities were removed, such as, monitoring the application of energy efficiency labeling, and the demonstration of the performance of low-GWP technology in cold rooms and refrigerated trucks; and some other activities such as adjustment of regulation, awareness raising and the monitoring and coordination component were rationalized. Noting that HFC-134a in the MAC sector was not addressed in the revised proposal, the Secretariat suggested to include training for MAC workshops on good practices, which was accepted.

41. Regarding the activity for the commercial refrigeration manufacturing/assembling enterprises, the assessment of the technical feasibility and sustainability of the adoption of R-290 by the group of 26 small enterprises, the Secretariat needed additional data about characteristics of the enterprises, which required more research at the field level and consequently further time for its revision. However, at the same time recognizing that the implementation of this activity could assist the Government of Burkina Faso to achieve additional reductions in HFC consumption and facilitate the adoption of low-GWP alternatives during stage I, the Secretariat considered that during the implementation of stage I of the KIP, the Government of Burkina Faso should be allowed, on an exceptional basis, to submit this project to achieve additional HFC reductions, and furthermore, if in developing the proposal, the Government of Germany and Burkina Faso consider it relevant, including a component to enhance energy efficiency in line with decision 91/65. By removing this project from the current budget, the total level of funds for activities in the servicing sector under stage I of the KIP is US \$325,000 to achieve a reduction of 30 per cent of the established baseline, which corresponds to a 10 per cent reduction of an estimated HFC baseline using a revised HCFC starting point, as shown in table 9 above.

Institutional, policy and regulatory framework

HFC licensing and quota system

42. In line with decision 87/50(g), the Government of Germany was requested to confirm that Burkina Faso has an established and enforceable system of licensing and quotas for monitoring HFC imports/exports in place. The Government of Germany indicated that there is an HFC licensing system and HFCs are being recorded and verified. The import authorisation system for HFCs is the same as for HCFCs with the exception that the quotas are not yet introduced. The quota system will be implemented upon approval of the KIP, the quotas will be defined on a yearly basis depending on regulations and sectoral needs. The agreed activities under stage I include a small component to assist in initiating the application of the quota system.

43. The Secretariat notes also the coordination work to be conducted for the purpose of imposing bans on the import of domestic refrigeration equipment and the revision of the public procurement regulation to introduce a ban on the acquisition of high-GWP air conditioners, and defining quality standards for the import of refrigerants, which are expected to be completed by the end of stage I.

Technical and cost-related issues

44. Given the relevance of specific technical issues in the overarching strategy, these issues, which focused on selecting a meaningful set of activities under stage I, are discussed under the overarching strategy section.

Total project cost

45. At the total cost of US \$325,000, stage I of the KIP for Burkina Faso will result in a reduction of 314,448 CO₂-eq tonnes from the country's HFC consumption eligible for funding, as summarized in table 7.

46. The first funding tranche of stage I of the KIP was revised to US \$162,500. It will include activities to be implemented between July 2024 and June 2027 as follows:

- (a) *Overarching strategy*: Strengthening HFC import controls by defining annual quotas for HFC imports, connecting the NOU with the online Customs Enforcement System (SILVIE) to issue the refrigerant import permits online, and monitoring the supply market of HFCs; drafting regulation to ban the import of HFC-134a-based domestic refrigeration appliances and modifying the public procurement regulation to introduce a ban on the acquisition of air conditioners based on high-GWP refrigerants; capacity building of at least 25 government officers on updated standards and regulations; starting the development of a certification mechanism for manufacturing and assembly workshops using HC-based refrigeration equipment; hiring a specialist in communication for awareness and outreach actions on the KIP measures and project for a total of (US \$48,000);
- (b) *Introduction of a refillable cylinders' scheme*: Acquiring equipment for establishing a refrigerant distribution centre for HC refrigerants for commercial refrigeration (i.e., R-290 and R-600a) and 70 refrigerant cylinders (US \$92,000);
- (c) *Awareness raising and capacity building*: Training and capacity building of importer and staff from the HC refrigerant distribution centre, and conducting one practical workshop for at least 40 technicians on good practices in the MAC servicing sector (US \$15,000); and
- (d) *Project coordination and implementation*: Support to the NOU in the KIP implementation and coordination with the HPMP and the National Energy Efficiency Action Plan (US \$7,500).

47. Stage I of the KIP will be implemented in two tranches. The schedule of HFC phase-down and HCFC phase-out commitments and of the KIP and HPMP tranches is presented in annex I to the present document.

48. In line with decision 93/105, the Secretariat considered the tranche distribution proposed by the Government of Germany on a case-by-case basis. The dual-tranche modality is consistent with the tranche distribution modalities for KIPs proposed in document UNEP/OzL.Pro/ExCom/94/59. In the event that the country does not comply with the maximum allowable consumption target for any year following the approval of the last tranche, the issues would be considered in line with Appendix 7-A of the future KIP

agreement (“Reductions in funding for failure to comply with the targets in the Agreement”), noting that any reduction in funding, if applicable, would be applied at the time of approval of stage II of the KIP.

Exemption for high-ambient temperature parties

49. Burkina Faso is one of the countries operating under the high-ambient temperature (HAT) exemption in line with decision XXVIII/2 of the Parties. The decision allows these countries to request exemptions for specific subsectors or uses where suitable alternatives do not exist.¹⁰ Additionally paragraph 35 indicates that the amount of Annex F substances subject to the HAT exemption are not eligible for funding under the Multilateral Fund while they are exempted for that party. The Government of Germany confirmed that Burkina Faso had not applied for the HAT exemption.

Co-financing

50. Several key co-financing measures will be implemented as part of the KIP. Training institutes involved in implementing the training programmes will sign Memorandums of Understanding (MOUs) with the NOU to allow the usage of their facilities at little to no cost for trainings conducted by the NOU. The government and stakeholders will allow the use of their websites, social media platforms, forums, and newsletters to disseminate information about KIP activities, goals, and initiatives. Furthermore, the NOU will seek for additional funding resources to meet the KIP targets and support the project's successful implementation.

2024-2026 business plan of the Multilateral Fund

51. The Government of Germany is requesting US \$325,000, plus agency support costs, for the implementation of stage I of the KIP for Burkina Faso. The total value of US \$183,625, including agency support costs, requested for the period of 2024–2026, is not in the business plan.

Sustainability of the HFC phase-down and assessment of risks

52. The Government of Germany identified potential risks to the sustained HFC phase-down and adoption of low-GWP alternatives in Burkina Faso. These include delays in approving regulations supporting the HFC quota system, standards, labelling and MEPS; delays in the provision of training and certification for technicians on handling low-GWP alternatives; and supply-chain constraints which may hinder timely adoption of low-GWP alternatives.

53. To address these risks, the KIP include activities to support the timely promulgation of key regulations. The country plans to implement a ban on the import of HFC-134a-based domestic refrigeration equipment and to modify the public procurement regulation to introduce a ban on the acquisition of high-GWP air conditioners. Additionally, efforts will focus on strengthening the certification and training of technicians and enhancing energy efficiency through the projects and activities approved under the HPMP. The proposed scheme to establish a refrigerant distribution system for HCs (i.e., R-290 and R-600a) which is beneficial for the commercial and domestic refrigeration sectors, is expected to popularize low-GWP technologies across the country due to refrigerant price reductions, build the capacity of importers and raise awareness among the main RAC stakeholders of the HFC phase-down. This initiative will complement the certification and capacity building workshops on manufacturing and servicing of R-290 based commercial equipment.

Impact on the climate

¹⁰ Exempted equipment under HAT includes multi-split air conditioners (commercial and residential); split-ducted air conditioners (commercial and residential); and ducted commercial packaged (self-contained) air conditioners.

54. The activities proposed, including the enforcement of the HFC quota system, technician training in good servicing practices including in the MAC sector and on the safe adoption of low-GWP technologies, indicate that the implementation of stage I of the KIP will reduce refrigerant emissions into the atmosphere, resulting in climate benefits. While the Secretariat is not able to provide an estimate of the avoided emissions from the implementation of the KIP at the present meeting,¹¹ by 2029 Burkina Faso will have reduced its annual HFC emissions by approximately 314,448 CO₂-eq tonnes, calculated as the difference between the HFC baseline for compliance and the 2029 target, assuming that all consumed HFCs will have eventually been emitted.

Draft Agreement

55. A draft Agreement between the Government of Burkina Faso and the Executive Committee for stage I of the KIP has not been prepared as the Agreement template is still under consideration by the Executive Committee.

56. If the Executive Committee so wishes, the funds for stage I of the KIP for Burkina Faso could be approved in principle, and funds for the first tranche could be approved on the understanding that the Agreement would be prepared and presented at a future meeting, before the submission of the second tranche, and once the Agreement template has been approved.

VI. Recommendation

57. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the Kigali HFC implementation plan (KIP) for Burkina Faso for the period 2024-2029 to reduce HFC consumption by 30 per cent of the country's baseline by 2029, in the amount of US \$325,000, plus agency support costs of US \$42,250 for the Government of Germany, as reflected in the schedule contained in annex I to the present document;
- (b) Noting:
 - (i) That the Government of Burkina Faso will establish its starting point for sustained aggregate reductions in HFC consumption based on guidance provided by the Executive Committee;
 - (ii) That, once the cost guidelines for HFC phase-down are agreed by the Executive Committee, reductions from the country's remaining HFC consumption eligible for funding will be determined in line with these guidelines;
 - (iii) That the reductions from the country's remaining HFC consumption eligible for funding, referred to in subparagraph (b)(ii) above, will be deducted from the starting point referred to in subparagraph (b)(i);
 - (iv) That, during the implementation of stage I of the KIP, the Government of Burkina Faso would be allowed, on an exceptional basis, to submit a project for the commercial refrigeration sector to achieve additional HFC reductions;
- (c) Approving the first tranche of stage I of the KIP for Burkina Faso and the corresponding

¹¹ As noted in document UNEP/OzL.Pro/ExCom/94/14, Overview of issues identified during project review, the Secretariat is in the process of developing a methodology to estimate the avoided emissions from the implementation of HFC phase-down projects supported by the Multilateral Fund.

tranche implementation plan, in the amount of US \$162,500, plus agency support costs of US \$21,125, for the Government of Germany; and

- (d) Requesting the Government of Burkina Faso, the Government of Germany and the Secretariat to finalize the draft Agreement between the Government of Burkina Faso and the Executive Committee for the reduction in consumption of HFCs, including the information contained in the annex referred to in subparagraph (a) above, and to submit it to a future meeting once the KIP Agreement template has been approved by the Executive Committee.

Annex I

**SCHEDULE OF HFC PHASE-DOWN AND HCFC PHASE-OUT COMMITMENTS AND FUNDING TRANCHES
UNDER THE KIGALI HFC IMPLEMENTATION PLAN AND THE HCFC PHASE-OUT MANAGEMENT PLAN FOR BURKINA FASO**

Kigali HFC implementation plan (stage I)

Row	Particulars	2024	2025	2026	2027	2028	2029	Total
1.1	Montreal Protocol reduction schedule of Annex F substances (CO ₂ -eq tonnes)	1,049,523	1,049,523	1,049,523	1,049,523	1,049,523	944,571	n/a
1.2	Maximum allowable total consumption of Annex F substances (CO ₂ -eq tonnes)	816,746	816,746	816,746	816,746	816,746	735,075	n/a
2.1	Lead IA (Government of Germany) agreed funding (US \$)	162,500	0	0	162,500	0	0	325,000
2.2	Support costs for Lead IA (US \$)	21,125	0	0	21,125	0	0	42,250
3.1	Total agreed funding (US \$)	162,500	0	0	162,500	0	0	325,000
3.2	Total support costs (US \$)	21,125	0	0	21,125	0	0	42,250
3.3	Total agreed costs (US \$)	183,625	0	0	183,625	0	0	367,250

HCFC phase-out management plan (stage II)

Row	Particulars	2023	2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	18.79	18.79	9.39	9.39	9.39	9.39	9.39	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	11.70	6.13	5.60	5.60	5.60	5.60	5.60	0	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	125,000	0	0	205,000	0	190,000	0	180,000	700,000
2.2	Support costs for Lead IA (US \$)	15,536	0	0	25,479	0	23,614	0	22,371	87,000
2.3	Cooperating IA (UNIDO) agreed funding (US \$)	200,000	0	0	0	0	270,000	0	0	470,000
2.4	Support costs for UNIDO (US \$)	14,000	0	0	0	0	18,900	0	0	32,900
2.5	Cooperating IA (Government of Germany) agreed funding (US \$)	120,000	0	0	0	0	0	0	0	120,000
2.6	Support costs for Government of Germany (US \$)	15,600	0	0	0	0	0	0	0	15,600
3.1	Total agreed funding (US \$)	445,000	0	0	205,000	0	460,000	0	180,000	1,290,000
3.2	Total support costs (US \$)	45,136	0	0	25,479	0	42,514	0	22,371	135,500
3.3	Total agreed costs (US \$)	490,136	0	0	230,479	0	502,514	0	202,371	1,425,500

Annex II

**SIMULTANEOUS IMPLEMENTATION OF THE HCFC PHASE-OUT MANAGEMENT PLAN
AND THE KIGALI HFC IMPLEMENTATION PLAN IN BURKINA FASO**

Category of activity	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US \$)
	Activity	Cost (US \$)	Activity	Cost (US \$)	
Strengthening of the regulatory framework	Connecting the NOU to SYLVIE* (electronic platform for import and export); developing and introducing a ban on the import of equipment containing HCFCs by 1 January 2026; adopting MEPS in AC equipment acquired through public procurement; developing regulatory standards and protocols for the use of flammable and/or toxic substances in RAC equipment	85,000	Strengthening HFC import controls by adjustments to the HFC quota system and monitoring the supply market of HFCs; connecting the NOU to SYLVIE* (electronic platform for import and export); drafting regulation for a ban on the import of HFC-based domestic refrigeration equipment and modifying the public procurement regulation to ban the acquisition of air conditioners based on high-GWP refrigerants, introducing mandatory labelling of refrigerant quality and energy efficiency of RAC equipment, and capacity building government officers on updated standards	38,000	123,000
			Consultation with main stakeholders on developing an extended producer responsibility scheme and development of legislation	15,000	15,000
Strengthening of customs and trade control	Training 12 trainers and 800 customs and enforcement officers and environmental inspectors in the control and identification of HCFCs and HCFCs-based equipment; holding ten information and awareness workshops for importers and distributors on regulatory requirements; supplying 16 refrigerant identifiers	300,000			300,000
Training of RAC technicians	Training 15 trainers and 1,000 RAC technicians in good practices, and in the recovery, recycling (RR) and reuse of refrigerants and safe handling of flammable and/or toxic refrigerants; targeted campaign to encourage female students to enter the RAC field; organizing RAC associations into a union and carrying out a needs assessment	230,000	Preparing training documents and conducting five capacity building workshops focused on servicing R-290 based commercial equipment	55,000	285,000
Certification of technicians	Developing and implementing a national certification scheme for refrigeration technicians and certifying 400 technicians; developing a system to validate the practical skills of technicians	115,000	Developing a certification mechanism focused on workshops and technicians using HC-based commercial refrigeration	15,000	130,000

Category of activity	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US \$)
	Activity	Cost (US \$)	Activity	Cost (US \$)	
Strengthening centres of excellence	Providing technical assistance, tools and equipment, and adaptations to training facilities to enable training with flammable refrigerants to two centres of excellence and two training institutes	380,000	Acquiring three tool kits of condensing units for training purposes	15,000	395,000
Improvement of the refrigerant RR network	enhancing recovery and recycling (RR) capacity by providing equipment to 50 enterprises and workshops				
Capacity building in commercial and industrial refrigeration			Establishing a refrigerant distribution centre for HC refrigerants for commercial refrigeration and acquiring 70 refrigerant cylinders; holding two workshops to present to stakeholders the time frame and modalities of HC refrigerant availability; training and capacity building of importers and staff from the HC refrigerant distribution centre;	122,000	122,000
MAC sector			Two practical workshops for capacity building on good practices in the MAC servicing.	20,000	20,000
Awareness activities			Communication, awareness and outreach actions on measures and activities included in the KIP	30,000	30,000
Energy efficiency	Reviewing and updating the standard curriculum for servicing of RAC equipment to incorporate MEPS; training 15 trainers on the updated curriculum; training 150 RAC technicians on energy saving measures to advise end-users on equipment selection; two training sessions on the design of MEPS; public awareness campaign to inform RAC equipment users on MEPS; and developing a system for monitoring the uptake and energy efficiency level of RAC appliances	120,000			120,000
Project coordination		60,000		15,000	75,000
Total		1,290,000		325,000	1,615,000

* Due to the connection of the custom enforcement system which will benefit the application of HCFC and HFC, the costs of connection will be shared between both projects