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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-eighth Meeting
Montreal, 22–26 June 2026
Item 8(d) of the provisional agenda¹

PROJECT PROPOSAL: UGANDA

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) UNEP and UNIDO Individual consideration

¹ UNEP/OzL.Pro/ExCom/98/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Uganda

PROJECT TITLE	AGENCY
Kigali HFC implementation plan (stage I)	UNEP (lead), UNIDO

ARTICLE 7 DATA (Annex F)	Year: 2025	14.20 mt	35,209 CO ₂ -eq tonnes
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COUNTRY PROGRAMME SECTORAL DATA (CO ₂ -eq tonnes) AND ACTIVITIES								Year:	2025
	Aerosol	Foam	Fire-fighting	Air-conditioning (AC) and refrigeration			Servicing	Solvent	Other
				Manufacturing					
				Refrigeration	AC	Other			
HFCs	0	0	0	0	0	0	35,209	0	0
Planned activities agreed (Y/N)							Y		

AVERAGE 2020–2022 HFC CONSUMPTION IN SERVICING	16.79 mt	36,291 CO ₂ -eq tonnes
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BASELINE DATA (CO ₂ -eq tonnes)	2020	2021	2022	Average 2020–2022
HFC annual consumption	48,950	46,209	13,710	36,291
HCFC baseline (65%)				3,141
HFC baseline				39,432

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

PROJECT DATA AS AGREED			2026*	2027	2028	2029	Total
Consumption (CO ₂ -eq tonnes)	Montreal Protocol limits		39,432	39,432	39,432	35,489	n/a
	Maximum allowable		39,432	39,432	39,432	35,489	n/a
	Reduction from baseline (%)		0	0	0	10.0	n/a
Project costs requested in principle (US \$)	UNEP	Project costs	47,000	0	38,000	0	85,000
		Support costs	6,110	0	4,940	0	11,050
	UNIDO	Project costs	40,000	0	20,000	0	60,000
		Support costs	5,200	0	2,600	0	7,800
Total amounts recommended in principle (US \$)		Project costs	87,000	0	58,000	0	145,000
		Support costs	11,310	0	7,540	0	18,850
		Total funds	98,310	0	65,540	0	163,850

* Recommended for approval at the present meeting

Reduction from remaining consumption eligible for funding in stage I (CO ₂ -eq tonnes)	n/a
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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: Status of implementation of the HCFC phase-out management plan and previous HFC-related activities
 - III. HFC consumption overview: HFC consumption levels, trends, and consumption by sector
 - IV. Stage I of the Kigali HFC implementation plan, as submitted: Regulatory framework, phase-down strategy, total stage cost, and implementation plan 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 Uganda, UNEP as the lead implementing agency has submitted a request for stage I of the Kigali HFC Implementation Plan (KIP), at a total cost of US \$163,850, consisting of US \$85,000, plus agency support costs of US \$11,050, for UNEP, and US \$60,000, plus agency support costs of US \$7,800, for UNIDO, as originally submitted.²

3. The implementation of stage I of the KIP will assist the Government of Uganda in meeting the target of 10 per cent reduction from its HFC baseline consumption by 1 January 2029.

4. The first tranche of stage I of the KIP being requested at this meeting amounts to US \$98,310, consisting of US \$53,000, plus agency support costs of US \$6,890, for UNEP, and US \$34,000, plus agency support costs of US \$4,420, for UNIDO, as originally submitted, for the period of July 2026 to June 2028.

II. Background

Status of implementation of the HCFC phase-out management plan

5. Table 1 presents information on the HCFC phase-out management plan (HPMP) in Uganda as of March 2026.

Table 1. HPMP implementation status for Uganda

	Stage I	Stage II
Meetings when HPMP was approved or updated	68 th	86 th /95 th
Reduction from baseline	35% by 2020	100% by 2030
Total stage cost (US \$)	164,500	523,000
Date of completion (actual or planned)	31 December 2021	31 December 2031

² As per the letter of 23rd February 2026 from the National Environment Management Authority of Uganda to the Secretariat.

Status of implementation of previous HFC-related activities

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

Table 2. Previously approved HFC-related activities in Uganda

Approval meeting	Project title	Implementing agency	Cost (US \$)	Date of completion
74 th	Survey of ODS alternatives	UNIDO	40,000	June 2017
81 st	Enabling activities for HFC phase-down	UNEP	50,000	December 2021
95 th	Pilot project to maintain and/or enhance the energy efficiency of replacement technologies and equipment in the context of HFC phase-down (non-investment activities)	Government of the United Kingdom of Great Britain and Northern Ireland	435,200	December 2026

III. HFC consumption overview

HFC consumption levels

7. Uganda's HFC consumption is only in the refrigeration and air-conditioning (RAC) servicing sector. The most consumed substances in 2025 were R-404A (41.7 per cent of total HFC consumption in CO₂-equivalent (CO₂-eq) tonnes), R-410A (17.8 per cent), R-407C (15.1 per cent), HFC-134a (14.0 per cent), and R-507A (11.3 per cent), with all other HFCs together accounting for the remaining share. Table 3 presents the country's HFC consumption as reported to the Ozone Secretariat under Article 7 of the Montreal Protocol, and the country's HFC baseline.

Table 3. 2020–2025 HFC consumption and baseline for Uganda (Article 7 data)

HFC	GWP	2020	2021	2022	2023	2024	2025
Metric tonnes (mt)							
HFC-23	14,800.0	0.00	0.00	0.00	0.00	0.01	0.00
HFC-32	675.0	0.00	0.00	0.00	2.80	0.00	0.00
HFC-134a	1,430.0	8.43	8.16	2.12	2.12	3.50	3.45
R-404A	3,921.6	4.52	4.25	1.23	1.23	3.70	3.75
R-407C	1,773.9	3.59	2.94	1.70	1.70	3.10	3.00
R-410A	2,087.5	5.99	5.99	1.36	1.36	3.00	3.00
R-507A	3,985.0	0.01	0.01	0.00	0.00	1.08	1.00
R-508B	6,808.0	0.03	0.02	0.00	0.00	0.00	0.00
Total (mt)		22.58	21.37	6.41	9.21	14.39	14.20
CO₂-eq tonnes							
HFC-23	14,800.0	0	0	0	0	148	0
HFC-32	675.0	0	0	0	1,890	0	0
HFC-134a	1,430.0	12,058	11,669	3,032	3,032	5,005	4,934
R-404A	3,921.6	17,737	16,671	4,824	4,824	14,510	14,706
R-407C	1,773.9	6,368	5,212	3,016	3,016	5,499	5,322
R-410A	2,087.5	12,502	12,502	2,839	2,839	6,263	6,263
R-507A	3,985.0	54	54	0	0	4,304	3,985
R-508B	6,808.0	231	102	0	0	0	0
Total (CO₂-eq tonnes)		48,950	46,209	13,710	15,600	35,728	35,209
HFC baseline calculation (CO₂-eq tonnes)							
Average HFC consumption in 2020–2022						36,291	
HCFC baseline (65%)						3,141	
HFC baseline						39,432	

Country programme implementation report

8. The sectoral HFC consumption data provided by the Government of Uganda in its country programme (CP) implementation report for 2025 is consistent with the data reported under Article 7 of the Montreal Protocol.

HFC consumption trends

9. HFC consumption in Uganda fluctuated between 2020 and 2024, with patterns influenced by economic conditions, import behaviour, and the country's ongoing transition to alternative technologies. The initial decline in consumption observed in 2022 resulted from the beginning of the transition of multinational companies to HFC alternatives, and the availability of existing HFC stocks that delayed new imports. As the economy recovered, consumption began to rise again in 2023 and 2024, driven by increasing demand for RAC servicing, expansion of commercial refrigeration and commercial air-conditioning (AC) operations, and the growing shift from HCFC to HFC-based systems.

HFC consumption by sector

10. HFCs are mainly consumed for servicing in commercial refrigeration (33.3 per cent in CO₂-eq tonnes), followed by residential AC (16.9 per cent in CO₂-eq tonnes), commercial AC (16 per cent), industrial refrigeration (14.6 per cent), mobile air-conditioning (MAC) (8.3 per cent) and other subsectors as shown in tables 4 and 5.

Table 4. HFC consumption in Uganda in RAC servicing subsectors in mt (2024)

Sector	HFC-23	HFC-134a	HFC-404A	R-407C	R-410A	R-507A	Total	Share of total (%)
Refrigeration subsectors								
Domestic	0.00	0.73	0.00	0.00	0.00	0.00	0.73	5.1
Commercial	0.00	0.50	2.26	0.00	0.00	0.58	3.34	23.2
Industrial	0.01	0.00	1.30	0.00	0.00	0.00	1.31	9.1
Transport	0.00	0.20	0.14	0.00	0.00	0.50	0.84	5.8
Air-conditioning subsectors								
Residential	0.00	0.00	0.00	1.99	1.21	0.00	3.20	22.2
Commercial	0.00	0.00	0.00	1.11	1.79	0.00	2.90	20.2
Mobile	0.00	2.07	0.00	0.00	0.00	0.00	2.07	14.4
Total	0.01	3.50	3.70	3.10	3.00	1.08	14.39	100

Table 5. HFC consumption in Uganda in RAC servicing in CO₂-eq tonnes (2024)

Sector	HFC-23	HFC-134a	HFC-404A	R-407C	R-410A	R-507A	Total	Share of total (%)
Refrigeration subsectors								
Domestic	0	1,045	0	0	0	0	1,045	2.9
Commercial	0	725	8,866	0	0	2,301	11,892	33.3
Industrial	148	0	5,080	0	0	0	5,228	14.6
Transport	0	281	564	0	0	2,003	2,848	8.0
Air-conditioning subsectors								
Residential	0	0	0	3,522	2,522	0	6,044	16.9
Commercial	0	0	0	1,977	3,741	0	5,718	16.0
Mobile	0	2,955	0	0	0	0	2,955	8.3
Total	148	5,006	14,510	5,499	6,263	4,304	35,728	100

Refrigeration and air-conditioning servicing sector

11. There are approximately 3,000 RAC service technicians in Uganda, including about 300 women, working across an estimated 500 workshops that consume and handle HFCs in the country. Of these technicians, approximately 2,000 have received formal professional training, while over 1,000 have undergone informal on-the-job training. The country has seven training institutes that collectively produce 179 RAC graduates annually, supported by a technician certification scheme established under the 2020 ODS and HFC regulations.

Domestic, commercial, industrial and transport refrigeration servicing

12. There are an estimated 1.1 million HFC-based domestic refrigeration units, mainly household refrigerators and freezers. Hydrocarbon (HC)-based refrigerators have also penetrated in the market, and households are shifting to these alternatives.

13. The commercial refrigeration consists of an estimated 7,700 units which include stand-alone units, condenser units, and centralized systems, and is one of the highest HFC consuming subsectors. It commonly uses HFC-134a, R-404A, and R-507A, especially in supermarkets, cold rooms, restaurants, and food retail outlets. Alternative refrigerants and technology in commercial refrigeration include CO₂ and HCs used in supermarkets, cold chain storage facilities, chillers etc.

14. The industrial refrigeration subsector includes large cold storage facilities, food processing plants, and agro-industrial installations. With an estimated 260 systems in operation, this subsector relies mainly on R-404A, with increasing but still limited use of ammonia and CO₂. A small use of HFC-23 (0.01 mt) in 2024 was found to be used in niche, high-performance applications, in industrial refrigeration systems that require extremely low temperatures.

15. Transport refrigeration comprises approximately 1,080 vehicles mainly used for cold-chain logistics and food distribution. These systems are serviced mainly for leak repairs associated with vibration and use HFC-134a, R-404A, and R-507A.

Residential and commercial air-conditioning servicing

16. This subsector includes residential split units, light commercial systems, and larger commercial installations in buildings, totalling approximately 398,000 residential and 9,000 commercial AC systems. The refrigerants used in this subsector are primarily R-407C and R-410A, which account for the majority of installed equipment and associated servicing demand. Residential AC ownership is expanding rapidly due to urbanization and rising temperatures in residences, while commercial AC serves offices, hotels, malls, and institutional buildings.

Mobile air-conditioning servicing

17. The MAC subsector includes approximately 132,000 vehicles and relies predominantly on HFC-134a. Limited penetration of HFO-1234yf is observed in newer imported vehicles.

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

18. The National Environment Management Authority (NEMA), through its Department of Environment Compliance, is the national designated authority for the Montreal Protocol in Uganda. The National Ozone Unit (NOU), operating under NEMA, is responsible for coordinating all Montreal Protocol obligations, including data reporting, operation of the licensing and quota systems, enforcement, and stakeholder engagement. The National Ozone Steering Committee, composed of ministries, customs,

statistical bodies, Uganda Revenue Authority Customs Department, importers, and other stakeholders, provides overall guidance on policy and implementation.

19. In 2020, the HFC licensing and quota system was included in the National Environment (Management of Ozone Depleting Substances and Products) Regulations. An electronic single-window system is under development for monitoring and quota allocation. Uganda has adopted the East African Community Harmonized Minimum Energy Performance Standards (MEPS) for air conditioners and refrigerating appliances, which were gazetted nationally in 2024. Work is underway to enhance national labelling provisions and develop standards for safe handling of flammable refrigerants as the market transitions to HCs and other low-GWP alternatives.

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

Overarching strategy

20. Uganda's overarching KIP strategy adopts a phased approach aligned with the Kigali Amendment. Stage I focuses on establishing the enabling conditions necessary for the transition to low- and zero-GWP technologies by strengthening the legal and regulatory framework and introducing regulatory measures such as restrictions on high-GWP refrigerants and equipment. It prioritizes capacity building for technicians, customs, and enforcement agencies, and conducting awareness activities among key stakeholders. Collectively, these measures are planned to achieve the required 10 per cent reduction by 2029 and lay the foundation for further phase-down of HFCs in subsequent stages of the KIP.

Proposed reductions

21. Stage I proposes to eliminate 3,943 CO₂-eq tonnes of HFCs, reducing the country's HFC consumption by 10 per cent of its baseline level by 2029. The Government of Uganda and UNEP have forecasted HFC consumption in a business-as-usual scenario using an annual growth of 7 per cent until 2029. The growth projection takes into consideration sector growth forecasts, input from stakeholders, HCFC phase-out measures and HFCs being phased in, as shown in table 6 below:

Table 6. HFC consumption forecast under the unconstrained scenario, Montreal Protocol limits, and proposed HFC reductions under stage I (CO₂-eq tonnes)

	2026	2027	2028	2029
HFC consumption forecast at an annual growth rate of 7 %*	42,632	46,071	49,711	53,565
Montreal Protocol HFC consumption limits	39,432	39,432	39,432	35,489
HFC consumption levels proposed under the KIP	39,432	39,432	39,432	35,489
Proposed reductions from the HFC consumption baseline (%)	0	0	0	10

* Calculated based on a 7% per cent increase from 2024 data due to expected sector growth, and HFCs phased in from HCFC phase-out

Proposed activities

22. Activities proposed for implementation in the servicing sector under stage I and in the first tranche and their cost breakdown are presented in table 7.

Table 7. Servicing sector activities and their costs in stage I and in the first tranche of stage I of the KIP for Uganda, as submitted

Activity	Agency	Cost (US \$)	
		Stage I	First tranche
Component 1: Regulatory framework and control mechanism			
1.1 Coordinate with key stakeholders to develop and implement a ban on import of high-GWP HFC-based domestic and stand-alone commercial refrigeration equipment by 1 January 2029	UNEP	3,000	1,000
1.2 Support implementation of the national HFC quota system, including allocation criteria and enforcement mechanisms	UNEP	5,000	3,000
1.3 Develop mechanism to register commercial and industrial RAC operators and promote in-house recovery and reuse of HFCs	UNIDO	3,000	2,000
1.4 Conduct market assessment of high-GWP HFC import trends, to inform policy development and regulatory planning	UNEP	6,000	2,000
1.5 Revise building codes, MEPS and labelling requirements to promote use of low-GWP refrigerants	UNEP	8,000	8,000
Subtotal Component 1		25,000	16,000
Component 2: Enforcement of HFC control			
2.1 Revise and upgrade customs training curriculum to include HFCs, HCs, other low-GWP alternatives, and updated harmonized systems (HS) codes	UNEP	5,000	5,000
2.2 Conduct two training of trainers (ToT) workshops for 20 customs officers (5 women) on the revised curriculum	UNEP	3,000	2,000
2.3 Organise two workshops for 50 clearing agents (10 women) on updated HS codes and quota procedures	UNEP	5,000	2,000
Subtotal component 2		13,000	9,000
Component 3: Capacity building and awareness			
3.1 Update code of practice on recovery and recycling, and training curricula for RAC vocational/technical institutes to include HFCs, HCs and other alternatives	UNEP	5,000	5,000
3.2 Develop capacity of centre of excellences for training for CO ₂ -based refrigeration through collaboration with international experts and institutions, developing tailored curriculum for the RAC technicians and trainers and developing CO ₂ training programmes	UNEP	5,000	5,000
3.3 Organise two awareness programmes for importers, distributors and retailers of RAC equipment (50 participants) on HFC phase-down and alternatives	UNEP	6,000	3,000
3.4 Organise two awareness programmes for built environment professionals ³ and procurement officers (50 participants) on low-GWP RAC design and procurement best practices	UNEP	5,000	2,000
3.5 Organise two awareness programmes for 50 junior students on RAC sector and women, to promote involvement of women in project activities	UNEP	5,000	2,000
Subtotal Component 3		26,000	17,000
Component 4: Strengthening MAC sector			
4.1 Engage with vehicle importers and dealers, to understand usage of HFCs and alternatives, and to prepare a plan and policy framework for MAC sector	UNEP	5,000	5,000
4.2 Formalise and certify four MAC garages as centres of excellence for MAC through selection and certification; development of training modules, and training of 12 MAC technicians	UNIDO	10,000	5,000

³ Architects, engineers, and designers specifying RAC systems

Activity	Agency	Cost (US \$)	
		Stage I	First tranche
Subtotal Component 4		15,000	10,000
Component 5: Pilot demonstration in commercial refrigeration			
5.1 Organise awareness workshops on monoblock for commercial refrigeration stakeholders, and identification of potential beneficiaries	UNIDO	3,000	1,000
5.2 Demonstrate low-GWP alternatives in commercial refrigeration sector through procurement and installation of R-290 monoblocks, and training to technicians	UNIDO	40,000	25,000
5.3 Monitor and report on performance of old commercial refrigeration system (R-404A) and new commercial refrigeration system (R-290 monoblock)	UNEP	5,000	3,000
Subtotal Component 5		48,000	29,000
Component 6: Project coordination and monitoring			
Monitor implementation, coordinate activities, and reporting	UNEP	14,000	5,000
	UNIDO	4,000	1,000
Subtotal Component 6		18,000	6,000
Subtotal UNEP		85,000	53,000
Subtotal UNIDO		60,000	34,000
Total		145,000	87,000

Project implementation, coordination and monitoring

23. The institutional arrangements and other infrastructure established under the HPMP will form the basis for the implementation and monitoring of the KIP activities. Project monitoring and coordination of the implementation will be undertaken by the NOU. A budget of US \$18,000 is proposed, which includes consultants (US \$6,000), domestic travel (US \$9,000) and contractual services (US \$3,000).

Total cost of stage I of the Kigali HFC implementation plan

24. The budget for stage I has been proposed at US \$145,000. The costs of activities in the refrigeration servicing sector have been proposed in line with decision 92/37.

Implementation plan for the first tranche

25. The first funding tranche of stage I of the KIP was submitted in the total amount of US \$87,000 with the proposed activities, as summarized in table 7 above, to be implemented between July 2026 and June 2028. Detailed information on the activities to be implemented under the first tranche, including adjustments and level of funds as agreed, are presented in paragraph 32 below.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

V. Comments

Overarching strategy

26. Given that the HCFC component constitutes only 8 per cent of the HFC baseline, the Secretariat asked whether the country had considered a 10 per cent reduction from the average HFC consumption in the baseline years, under which the country could request up to 20 per cent additional funding in accordance with decision 92/37(b)(ii). UNEP informed that the country intends to maintain the current level of funding and commitment.

Institutional, policy and regulatory framework

HFC licensing and quota system

27. In line with decision 87/50(g), UNEP has confirmed that Uganda has an established and enforceable system of licensing and quotas for monitoring HFC imports/exports in place. The country sets its annual quota in CO₂-eq tonnes, while importers receive quotas in metric tonnes, the NOU calculates and monitors the quotas to align with the national limit. The quota for 2026 has been set at 34,549 CO₂-eq tonnes.

Technical and cost-related issues

28. With regard to activity 1.5 on the development of MEPS, and the activity 2.1 on the revision of the customs training curriculum, the Secretariat sought clarification on its additionality, noting that both activities were overlapping with additional energy efficiency activities approved at the 95th meeting (under decision 89/6). Agreeing to this observation, UNEP removed these two activities and reallocated the amount by adding two new activities in component 3 aimed at strengthening the RAC sector. These include training of technicians on good service practices and safe handling of flammable refrigerants, and ToT for instructors of RAC centres of excellence on new updated codes of practice and training curriculum.

29. During the project review process, UNIDO requested removal of R-290 demonstration activities under component 5, to avoid duplication with proposed activities being planned for the second pilot energy efficiency project (under decision 91/65), funding for preparation of which is being requested at the present meeting.⁴ The associated budget was reallocated to newly introduced activities aimed at strengthening the RAC and MAC sectors under components 3 and 4, respectively. These revised activities include the procurement of equipment and tools⁵ for four MAC centres of excellence, as well as the organization of a ToT programme for MAC instructors.

30. On the first pilot energy efficiency project under decision 91/65 approved at the 95th meeting, an update on progress was provided. The project is at an early stage of implementation. The country has engaged with the supermarket to plan the transition, and the assessment is currently ongoing. The training and awareness and outreach activities under the KIP have been planned to inter alia support introduction of the demonstrated technology in the country and the relevant regulatory action (ban on import of stand-alone commercial refrigeration equipment) by 1 January 2029.

Total project cost

31. At a total cost of US \$145,000, stage I of the KIP for Uganda will result in a reduction of 3,943 CO₂-eq tonnes from the country's HFC consumption eligible for funding, as summarized in table 7 above. While no changes were made to the overall budget, the following reallocations within the project budget, changes to the project's activities, and revision in tranche allocation, were agreed, based on the discussion summarized in paragraphs 28 to 29 above:

- (a) Component 3: Reallocation of US \$18,000 from components 1.5 (US \$8,000), 2.1 (US \$5,000) and 5 (US \$5,000) to support the inclusion of the following activities:
 - (i) Organizing three ToT workshops for 40 instructors of RAC centres of excellence on new updated codes of practice and training curriculum (including 10 women) (UNEP) (US \$3,000);

⁴ UNEP/OzL.Pro/ExCom/98/16

⁵ Recovery, recycling and recharging units, recover machines, manifold gauge sets, vacuum pumps, set of hoses, adapters and valves

- (ii) Conducting two training programmes for 100 technicians on good service practices and safe handling of flammable refrigerants (including 15 women) (UNEP) (US \$15,000);
- (b) Component 4: Reallocation of US \$43,000 from component 5 to support the following activities:
 - (i) Procurement of equipment/tools for four MAC centres of excellence (UNIDO) (US\$40,000); and
 - (ii) Organizing two TOT programmes for 20 MAC instructors (including five women) (UNIDO) (US\$3,000).

32. A summary of the agreed component-wise costs is presented below in table 8:

Table 8: Agreed component wise activities and costs for stage I

Activities as proposed	Agency	Original (US \$)		Revised (US \$)	
		Total	First tranche	Total	First tranche
1. Regulatory framework and control mechanism	UNEP and UNIDO	25,000	16,000	17,000	11,000
2. Enforcement of HFC control	UNEP	13,000	9,000	8,000	4,000
3. Capacity building and awareness	UNEP	26,000	17,000	44,000	26,000
4. Strengthening the MAC sector	UNEP and UNIDO	15,000	10,000	58,000	40,000
5. Pilot demonstration in commercial refrigeration	UNEP and UNIDO	48,000	29,000	0	0
6. Project coordination and monitoring	UNEP and UNIDO	18,000	6,000	18,000	6,000
Subtotal UNEP		85,000	53,000	85,000	47,000
Subtotal UNIDO		60,000	34,000	60,000	40,000
Total		145,000	87,000	145,000	87,000

Implementation plan for the first tranche of the Kigali HFC implementation plan

33. The agreed plan of action will include the following activities in the total amount of US \$87,000 (US \$47,000 for UNEP and US \$40,000 for UNIDO):

- (a) *Regulatory framework and control mechanism:* Coordinating with relevant key stakeholders to develop a ban on high-GWP HFC-based equipment in the domestic and stand-alone commercial refrigeration sector; supporting the NOU to implement the national HFC quota system; assessing the market and HFCs import trends (UNEP) (US \$9,000); and registering commercial and industrial RAC operators and promote recovery and reuse of HFCs (UNIDO) (US \$2,000);
- (b) *Enforcement of HFC control:* Conducting one ToT for 10 custom officers (including three women) on the new revised curriculum, and organizing one workshop for 25 clearing agents (including five women) on HFC quota procedures (UNEP) (US \$4,000);
- (c) *Capacity building and awareness:* Updating codes of practice and training curricula for RAC vocational and technical institutes; organizing one ToT workshop for 15 instructors (including 5 women) of RAC centres of excellence on new updated codes of practice and training curriculum; conducting one training for 40 refrigeration technicians (including

five women) on good service and safe handling of flammable refrigerants; developing a training programme on CO₂ for centres of excellence; organizing one awareness programme for importers, distributors and retailers of RAC equipment (25 participants) on the HFC phase-down and available alternatives; organizing one awareness programmes for built environment professionals and procurement officers (25 participants) on low-GWP RAC system design and procurement practices; and organizing one awareness programmes for 30 junior students on RAC sector and women (UNEP) (US \$26,000);

- (d) *Strengthening MAC Sector*: Engaging with vehicle importers and dealers to assess the use of HFCs and alternatives and to prepare a plan and policy framework for the MAC sector; (UNEP) (US \$3,000); formalising and certifying four MAC garages as centres of excellence for MAC; and procurement of equipment and tools for four MAC centres of excellence (UNIDO) (US \$37,000); and
- (e) *Project monitoring support and implementation coordination activities (UNEP) (US \$5,000), (UNIDO) (US \$1,000)*: Including consultants (US \$2,000); domestic travel (US \$3,000); and contractual services (US \$1,000).

Co-financing

34. The Government of Uganda will provide in-kind contribution to the implementation of the KIP by covering costs related to office space, office equipment, and local transportation. In addition, the NOU is closely linked with the focal points of other multilateral environmental agreements within NEMA and collaborates on a number of projects that promote synergies and have direct or indirect environmental and climate benefits.

2026–2028 business plan of the Multilateral Fund

35. UNEP and UNIDO are requesting US \$145,000 plus agency support costs, for the implementation of stage I of the KIP for Uganda. The total value of US \$163,850 including agency support costs, requested for the period of 2026–2028, is US \$43,174 above the amount in the business plan.

Gender policy implementation

36. In line with decisions 84/92, 90/48 and 92/40, the Government of Uganda has incorporated the policy into the project preparation and formulation for stage I of the KIP. During stage I of the KIP, the NOU will undertake awareness-raising activities to encourage women to join the RAC sector, organise workshop for students with women RAC experts as speakers to motivate women students, and participate in training sessions and consultations. Further, sex-disaggregated targets for the customs and technician training programmes have been included, and the participation of men and women in training, consultations, implementation teams, and awareness-raising sessions will be tracked.

Sustainability of the HFC phase-down and assessment of risks

37. Potential risks to project implementation for stage I of the KIP include lack of engagement of key stakeholders, cost and availability of alternatives, increased demand of RAC and delay in implementation. These risks are being addressed through a comprehensive approach that integrates regulatory enforcement, capacity building, and continuous stakeholder engagement. Strengthening the HFC licensing and the quota system ensures that the phase-down is strictly monitored and controlled. The long-term sustainability plan includes a ban on HFC-based domestic refrigerators and stand-alone commercial refrigeration units, assessment and plan for HFC phase-out for high GWP HFCs, and for sustained technician training.

Impact on the climate

38. The activities proposed, including policy and regulatory enforcement and capacity building indicate that the implementation of stage I of the KIP will reduce refrigerant emissions in the atmosphere, resulting in climate benefits. A calculation of the impact on the climate of the activities in the KIP indicates that by 2029, Uganda will have to reduce its HFC emissions by approximately 3,943 CO₂-eq tonnes, calculated as the difference between the HFC baseline for compliance and the 2029 target, assuming that all consumed HFCs would have eventually been emitted.

Draft Agreement

39. A draft Agreement between the Government of Uganda and the Executive Committee for stage I of the KIP is contained in annex I to the present document.

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

40. Annex II summarizes the simultaneous implementation of activities under the HPMP and the KIP.

VI. Recommendation

41. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the Kigali HFC implementation plan (KIP) for Uganda for the period 2026–2029 to reduce HFC consumption by 10 per cent of the country's baseline, in the amount of US \$163,850, consisting of US \$85,000, plus agency support costs of US \$11,050, for UNEP and US \$60,000, plus agency support costs of US \$7,800, for UNIDO;
- (b) Noting that the Government of Uganda will put in place a ban on import of HFC-based domestic and stand-alone commercial refrigeration equipment by 1 January 2029;
- (c) Approving the draft Agreement between the Government of Uganda and the Executive Committee for the reduction in consumption of HFCs in accordance with stage I of the KIP, contained in annex I to the present document; and
- (d) Approving the first tranche of stage I of the KIP for Uganda and the corresponding tranche implementation plan, in the amount of US \$98,310, consisting of US \$47,000, plus agency support costs of US \$6,110, for UNEP and US \$40,000, plus agency support costs of US \$5,200, for UNIDO.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF UGANDA AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROFLUOROCARBONS IN ACCORDANCE WITH STAGE I OF THE KIGALI HFC IMPLEMENTATION PLAN (Period: 2026–2029)

Purpose

1. This Agreement represents the understanding of the Government of Uganda (“the Country”) and the Executive Committee with respect to the reduction of controlled use of Annex F substances set out in Appendix 1-A (“The Substances”) to a sustained level of 35,489 CO₂-equivalent (CO₂-eq) tonnes by 1 January 2029 in compliance with the Montreal Protocol schedule and the terms of this Agreement.
2. The Country agrees to meet the annual consumption limits of Annex F substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) in this Agreement as well as in the Montreal Protocol reduction schedule for Annex F substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of Annex F substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for Annex F substances specified in Appendix 1-A.
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees, in principle, to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (“Funding Approval Schedule”).
4. The Country agrees to implement this Agreement in accordance with stage I of the Kigali HFC implementation plan (“the Plan”) as approved. In accordance with subparagraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of Annex F substances set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.

Conditions for funding release

5. The Executive Committee will only provide the Funding, in accordance with the Funding Approval Schedule, when the Country satisfies the following conditions at least 10 weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:
 - (a) That the Country has met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved. Years for which there are no due country programme implementation reports at the date of the Executive Committee meeting at which the funding request is being presented are exempted;
 - (b) That the meeting of these Targets has been independently verified for all relevant years, unless the Executive Committee decided that such verification would not be required;
 - (c) That the Country had submitted a Tranche Implementation Report in accordance with Appendix 4-A (“Format of Tranche Implementation Reports and Plans”) covering each

previous calendar year; that it had achieved a significant level of implementation of activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and

- (d) That the Country has submitted a Tranche Implementation Plan in accordance with Appendix 4-A covering each calendar year until and including the year for which the Funding Approval Schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

Monitoring

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (“Monitoring Institutions and Roles”) will monitor and report on implementation of the activities in the previous Tranche Implementation Plans in accordance with their roles and responsibilities set out in the same appendix.

Flexibility in the reallocation of funds

7. The Executive Committee agrees that the Country may have the flexibility to reallocate part or all approved funds, according to the evolving circumstances, to achieve the smoothest reduction of consumption and phase-down of Annex F substances specified in Appendix 1-A, in accordance with the following considerations:

- (a) Reallocations categorized as major changes must be documented in advance, either in a Tranche Implementation Plan as foreseen in subparagraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted 10 weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:
 - (i) Issues potentially concerning the rules and policies of the Multilateral Fund;
 - (ii) Changes that would modify any clause of this Agreement;
 - (iii) Changes in the annual levels of funding allocated to the individual bilateral or implementing agencies for the different tranches;
 - (iv) Provision of funding for activities not included in the current endorsed Tranche Implementation Plan, or removal of an activity in the Tranche Implementation Plan, with a cost greater than 30 per cent of the total cost of the last approved tranche;
 - (v) Changes in alternative technologies, on the understanding that any submission for such a request would identify the associated incremental costs, the potential impact on the climate, and any differences in CO₂-eq tonnes to be phased down if applicable, as well as confirm that the Country agrees that potential savings related to the change of technology would accordingly decrease the overall funding level under this Agreement;
- (b) Reallocations not categorized as major changes may be incorporated into the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the subsequent Tranche Implementation Report; and
- (c) Any remaining funds held by the bilateral or implementing agencies or the Country under the Plan will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

8. Specific attention will be paid to the execution of activities in the refrigeration servicing sector included in the Plan, in particular that the Country may use the flexibility available under this Agreement to address specific needs that might arise during project implementation.

Bilateral and implementing agencies

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNEP has agreed to be the lead implementing agency (the “Lead IA”) and UNIDO has agreed to be the cooperating implementing agency (the “Cooperating IA”) under the lead of the Lead IA in respect of the Country’s activities under this Agreement. The Country agrees to evaluations, which might be carried out under the evaluation work programme of the Multilateral Fund or under the evaluation programme of the Lead IA and/or Cooperating IA taking part in this Agreement.

10. The Lead IA will be responsible for ensuring coordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to the independent verification as per subparagraph 5(b). The Cooperating IA will support the Lead IA by implementing the Plan under the overall coordination of the Lead IA. The roles of the Lead IA and Cooperating IA are contained in Appendix 6-A and Appendix 6-B, respectively. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

Non-compliance with the Targets in the Agreement

11. Should the Country, for any reason, not meet the Targets for the elimination of Annex F substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amount set out in Appendix 7-A (“Reductions in Funding for Failure to Comply”) in respect of each CO₂-eq kg of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement and take related decisions. Once decisions are taken, the specific case of non-compliance with this Agreement will not be an impediment for the provision of funding for future tranches as per paragraph 5 above.

12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decisions that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee, the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to the information necessary to verify compliance with this Agreement.

Date of completion

14. The completion of the Plan and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should at that time there still be activities that are outstanding, and which were foreseen in the last Tranche Implementation Plan and its subsequent revisions as per subparagraph 5(d) and paragraph 7, the completion of the Plan will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per subparagraphs 1(a), 1(b), and 1(d) of Appendix 4-A

will continue until the time of the completion of the Plan unless otherwise specified by the Executive Committee.

Validity

15. All conditions set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

16. This Agreement may be modified or terminated only by mutual written agreement of the Country and the Executive Committee of the Multilateral Fund.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substances	Starting point for aggregate reductions in consumption (CO ₂ -eq tonnes)
HFCs	n/a

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars		2026	2027	2028	2029	Total
1.1	Montreal Protocol reduction schedule of Annex F substances	%	freeze	freeze	freeze	10	n/a
		CO ₂ -eq tonnes	39,432	39,432	39,432	35,489	n/a
1.2	Maximum allowable total consumption of Annex F substances	Reduction in %	0.0	0.0	0.0	10.0	n/a
		CO ₂ -eq tonnes	39,432	39,432	39,432	35,489	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)		47,000	0	38,000	0	85,000
2.2	Support costs for Lead IA (US \$)		6,110	0	4,940	0	11,050
2.3	Cooperating IA (UNIDO) agreed funding (US \$)		40,000	0	20,000	0	60,000
2.4	Support costs for Cooperating IA (US \$)		5,200	0	2,600	0	7,800
3.1	Total agreed funding (US \$)		87,000	0	58,000	0	145,000
3.2	Total support costs (US \$)		11,310	0	7,540	0	18,850
3.3	Total agreed costs (US \$)		98,310	0	65,540	0	163,850

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the first meeting of the year specified in Appendix 2-A.

APPENDIX 4-A: FORMAT OF THE TRANCHE IMPLEMENTATION REPORTS AND PLANS

1. The submission of the Tranche Implementation Report and Plans for each tranche request will consist of four parts:

- (a) A narrative report, with data provided by tranche, describing the progress achieved since the previous report, reflecting the situation of the Country in regard to phase-down of Annex F substances, how the different activities contribute to it, and how they relate to each other, including, where applicable, activities related to energy efficiency approved in the context of HFC phase-down pursuant to decision 91/65. The report should include the

amount of Annex F substances consumption reduced as a direct result of the implementation of activities, by substance, the alternative technology used and the related phase in of alternatives, to allow the Secretariat to inform the Executive Committee on the resulting change in climate relevant emissions. The report should also include quantitative information on the activities implemented and further highlight the successes, experiences, and challenges related to the different activities included in the Plan, reflecting any changes in the circumstances in the Country, and providing other relevant information. The report should also include information on and justification for any changes vis-à-vis the previously submitted Tranche Implementation Plan(s), such as delays, use of flexibility for the reallocation of funds during implementation of a tranche as provided for in paragraph 7 of this Agreement, or other changes;

- (b) An independent verification report on the Plan's results and the consumption of Annex F substances, as per subparagraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification of consumption data must be provided with each tranche request, covering all relevant years for which a verification report has not yet been acknowledged by the Committee, as specified in subparagraph 5(a) of the Agreement;
- (c) A written description of the activities to be undertaken during the period covered by the requested tranche including quantitative information, highlighting implementation milestones, the time of completion and the interdependence of the activities, and taking into account experiences made and progress achieved in the implementation of earlier tranches; the data in the Plan will be provided by calendar year. The description should include a reference to the overall Plan and progress achieved, as well as any possible changes to the overall Plan that are foreseen. The description should also specify and explain in detail such changes to the overall Plan. This description of future activities can be submitted as a part of the same document as the narrative report under subparagraph 1(a) above; and
- (d) An Executive Summary of about five paragraphs, summarizing the information contained in subparagraphs 1(a) to 1(c) above.

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The national ozone unit (NOU), under the Ministry of Land and Environment, is responsible for monitoring the progress of implementation of activities in the Plan.
2. Monitoring will be conducted during the implementation of the Plan to ensure efficient and effective implementation; overall project coordination; stakeholder engagement and coordination; smooth implementation of activities planned under various tranches; delivery of training and other expected outcomes; and facilitation of the HFC consumption verification undertaken by the Lead IA.
3. The Ministry of Land and Environment will be responsible for the sustainability of consumption reduction targets achieved through this Agreement.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities, including at least the following:
 - (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's Plan;

- (b) Assisting the Country in the preparation of the Tranche Implementation Reports and Plans as per Appendix 4-A;
- (c) Providing independent verification to the Executive Committee that the Targets have been met and associated tranche activities have been completed as indicated in the Tranche Implementation Plan, consistent with Appendix 4-A;
- (d) Ensuring that the experiences and progress are reflected in the updates to the overall Plan and in the future Tranche Implementation Plans, consistent with subparagraph 1(c) of Appendix 4-A;
- (e) Fulfilling the reporting requirements of the Tranche Implementation Reports and Plans and of the overall Plan as specified in Appendix 4-A for submission to the Executive Committee including the activities implemented by the Cooperating IA;
- (f) In the event that the last funding tranche is requested one or more years prior to the last year for which a consumption target had been established, annual Tranche Implementation Reports and, where applicable, verification reports on the current stage of the Plan should be submitted until all activities foreseen had been completed and HFC consumption targets had been met;
- (g) Ensuring that appropriate independent technical experts carry out the technical reviews;
- (h) Carrying out the required supervision missions;
- (i) Ensuring the presence of an operating mechanism to allow for an effective and transparent implementation of the Tranche Implementation Plan and accurate data reporting;
- (j) Coordinating the activities of the Cooperating IA and ensuring the appropriate sequence of activities;
- (k) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country and the Cooperating IA, the allocation of the reductions to the different budget items and to the funding of the Lead IA and each Cooperating IA;
- (l) Ensuring that disbursements made to the Country are based on the use of the indicators;
- (m) Providing assistance with the policy, management and technical support when required;
- (n) Reaching consensus with the Cooperating IA on any planning, coordination and reporting arrangements required to facilitate the implementation of the Plan; and
- (o) Timely releasing funds to the Country/participating enterprises for completing the activities related to the project.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent entity to carry out the verification of the Plan's results and of the consumption of Annex F substances mentioned in Appendix 1-A, as per subparagraph 5(b) of the Agreement and subparagraph 1(b) of Appendix 4-A.

APPENDIX 6-B: ROLE OF THE COOPERATING IMPLEMENTING AGENCIES

1. The Cooperating IA will be responsible for a range of activities. These activities are specified in the Plan, including at least the following:

- (a) Providing assistance for policy development when required;
- (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and referring to the Lead IA to ensure a coordinated sequence of activities;
- (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A; and
- (d) Reaching consensus with the Lead IA on any planning, coordination and reporting arrangements required to facilitate the implementation of the Plan.

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY WITH THE TARGETS IN THE AGREEMENT

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$7.00 per CO₂-eq tonne of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the Target specified in row 1.2 of Appendix 2-A has not been met, on the understanding that the maximum funding reduction would not exceed the funding level of the tranche being requested. Additional measures might be considered in cases where non-compliance extends for two consecutive years. Where the Country has failed to comply with the Agreement due to illegal trade, the reduction in funding would not be applied if the illegally traded controlled substances are seized and subsequently confiscated, destroyed, exported, or returned to the country of origin.

Annex II

SIMULTANEOUS IMPLEMENTATION OF THE HCFC PHASE-OUT MANAGEMENT PLAN AND THE KIGALI HFC IMPLEMENTATION PLAN IN UGANDA

Category of activity	HPMP Stage II		KIP Stage I		HPMP+KIP combined cost Category of activity (US \$)
	Activity	Costs (USD)	Activity	Costs (USD)	
Legislative and regulatory measures	- Conducting 20 consultative sessions with national stakeholders to finalise the technical standards in the RAC sector for the safe use of energy efficient low-GWP alternative technologies and equipment; - publication and dissemination of the RAC standards; - Organizing 8 awareness workshops to enhance compliance with the standards for RAC technicians, importers, industry representatives and the public; - Conducting inspections on imported RAC equipment and refrigerants to ensure compliance with the technical standards; - Developing of policies that support green procurement and implement four training workshops for 100 procurement officers on green procurement of RAC systems; - Implementing awareness campaigns to sensitize the public on benefits of adopting and using RAC systems based on low-GWP refrigerants.	100,000	- Coordinating with East African Community (EAC) member states and other relevant key stakeholder's while banning HCFC-based equipment to include the ban of RAC equipment using HFC refrigerants with high GWP in the domestic refrigeration, and commercial stand-alone refrigeration units to HC refrigerants by January 2029; - Supporting the NOU to implement the national HFC quota system and framework including criteria for quota allocation with provisions for enforcement and monitoring; - Develop mechanism to register commercial and industrial RAC operators and promote in-house recovery and reuse of HFCs; - Conduct market assessment of high-GWP HFC import trends, to inform policy development and regulatory planning	17,000	117,000
Enforcement of HFC controls	- Training of 15 trainers on HCFC monitoring, control and reporting, and prevention of illegal trade; - Conducting eight workshops for the dissemination of information to 200 law enforcement officers on the regulations for HCFC controls and monitoring, and viable HCFC alternative technologies; - Procurement and distribution of refrigerant identifiers to customs border posts.	40,000	- Conducting 2 ToT workshops for 20 customs (including 5 women) officers on the new revised curriculum; - Organizing two workshops and training for 50 clearing agents (including 10 women) on HFC quota implementation.	8,000	48,000

Category of activity	HPMP Stage II		KIP Stage I		HPMP+KIP combined cost Category of activity (US \$)
	Activity	Costs (USD)	Activity	Costs (USD)	
Capacity building for RAC technicians and establishment of an ODS database and a certification scheme	- Developing the ODS database for exchange of information with enforcement agencies to access data on authorised importers/exporters of HCFCs, quotas and actual imports, and designated ports for import-exports; - Engaging an expert for the establishment of the certification scheme and updating technical information on emerging HCFC-free technologies; - Conducting 10 training workshops on good servicing practices and safe servicing using flammable refrigerants for 450 RAC technicians; - Conducting targeted awareness to end-users about the phase-out of HCFCs and the introduction of new technologies such as HFCs and low- or zero-GWP refrigerants; - Strengthening of the RAC association through provision of tool kits (e.g., refrigerant recovery units, recovery cylinders) and technical training and information on good servicing practices and implementation of code of good practices;	100,000	- Updating the code of practice and training curricula for RAC vocational/technical instructions to include HFCs, HCs and low- or zero-GWP refrigerants; - Organizing 2 training programmes for 100 refrigeration technicians (including 15 women) on good service and safe handling flammable refrigerants.	20,000	120,000
Strengthening RAC training centres and establishment of centres of excellence	- Establishing of 2 new centres of excellence with training equipment (e.g., refrigerant recovery equipment, refrigerant cylinders, refrigerant identifiers, safety equipment and tools); - Procurement of complementary tools to the 5 centres of excellence for training technicians on using flammable refrigerants; and establishment of a refrigerant recovery and re-use scheme with equipment (e.g., reclamation unit, recovery cylinders, leak detection equipment).	133,000	- Conducting three ToT workshops for instructors 40 (including 10 women) of RAC centres of excellence on new updated codes of practice and training curriculum; - Developing a CO₂ training programme at the centre of excellence.	8,000	141,000

Category of activity	HPMP Stage II		KIP Stage I		HPMP+KIP combined cost Category of activity (US \$)
	Activity	Costs (USD)	Activity	Costs (USD)	
Strengthening MAC Sector		-	- Procurement of equipment/tools for four licensed Centre of Excellence; - Conducting two ToT for 20 MAC instructors (including five women); - Engage with vehicle importers and dealers, to understand usage of HFC and alternatives, and to prepare a plan and policy framework for MAC sector; - Formalise and certify four MAC garages as centres of excellence for MAC through training and provision of technical support by qualified MAC experts.	58,000	58,000
Awareness raising	- Identifying beneficiaries using commercial refrigeration equipment in hotels, dairy and food processing industries; - Providing technical support and training on containment of refrigerant in different end-users through good maintenance practices, leakage control methods and periodic monitoring of equipment.	20,000	- Conducting two awareness programmes for 50 RAC importers, distributors and retailers of RAC equipment on HFC phase-down and alternatives - Conducting two awareness programmes for 50 built environment professionals and procurement officers on low-GWP RAC design and procurement best practices; - Organizing two awareness programmes for 50 junior students, on RAC sector and women, to promote involvement of women in project activities	16,000	36,000
Activities to maintain energy efficiency in the refrigeration servicing sector	-Conducting a survey/assessment on the promotion of energy-efficient low-GWP technologies, involving the NOU, relevant ministries, departments and agencies; -Conducting training of customs and trade authorities through updating of training materials and organization of one workshop for 30 customs officers on monitoring imports of refrigeration, air-conditioning and heat-pump equipment and products requiring labelling, with emphasis on refrigerant type, charge quantity, GWP and flammability, among other elements;	100,000			

Category of activity	HPMP Stage II		KIP Stage I		HPMP+KIP combined cost Category of activity (US \$)
	Activity	Costs (USD)	Activity	Costs (USD)	
	-Updating of training materials and conduct 2 workshops for the training of 30 RAC trainers and technicians on energy efficiency; -Organizing information exchange session for other technical experts with 50 participants, promoting the use of energy-efficient low-GWP technologies; -Developing two awareness videos on labelling programmes and 2 infographics to raise public awareness about GWP, energy efficiency labels, and their financial and environmental benefits; -Organizing awareness session for importers on national labelling requirements and the importance of importing energy-efficient appliances; -Evaluating consumer behaviour including assessment of barriers through conducting survey to collect data from 1,000 households to understand consumers' awareness of low GWP and energy efficiency.				
Coordination and monitoring	Programme monitoring support and coordination.	30,000	Programme monitoring support and coordination.	18,000	38,000
Total		523,000		145,000	668,000
Percentage of total (%)		78		22	100