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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-seventh Meeting
Montreal, 1–5 December 2025
Item 9(d) of the provisional agenda[1]

PROJECT PROPOSAL: ETHIOPIA

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/97/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Ethiopia

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

LATEST ARTICLE 7 DATA (Annex F)	Year: 2024	96.00 mt	199,749 CO_2-eq tonnes

SECTORAL HFC CONSUMPTION DATA (CO_2-eq tonnes) AND ACTIVITIES									
	Aerosol	Foam	Fire-fighting	Air-conditioning and refrigeration			Servicing	Solvent	Other
				Manufacturing					
				Refrigeration	AC	Other			
Latest CP report (2024)		8,343					191,411		
KIP stage I activities as agreed (Y/N)							Y		

AVERAGE 2020–2022 HFC CONSUMPTION IN SERVICING	108.16 mt	229,385 CO_2-eq tonnes

BASELINE CONSUMPTION DATA (CO_2-eq tonnes)	2020	2021	2022	Average 2020-2022
HFC annual consumption	281,607	306,842	99,705	229,385
HCFC baseline (65%)				117,650
HFC baseline				347,035

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			2025*	2026	2027	2028	2029	Total
Consumption (CO_2-eq tonnes)	Montreal Protocol limits		347,035	347,035	347,035	347,035	312,332	n/a
	Maximum allowable		347,035	347,035	347,035	347,035	312,332	n/a
	Reduction from baseline (%)		0	0	0	0	10	n/a
Amounts recommended in principle (US $)	UNEP	Project costs	62,500	0	43,500	0	0	106,000
		Support costs	8,125	0	5,655	0	0	13,780
	UNIDO	Project costs	39,500	0	24,500	0	0	64,000
		Support costs	5,135	0	3,185	0	0	8,320
	Total project costs		102,000	0	68,000	0	0	170,000
	Total support costs		13,260	0	8,840	0	0	22,100
	Total funds		115,260	0	76,840	0	0	192,100

***** Recommended for approval at the present meeting

Reduction from remaining consumption eligible for funding in stage I (CO_2-eq tonnes)	n/a

Secretariat's recommendation	Individual consideration

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 Ethiopia, 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 $192,100, consisting of US $106,000, plus agency support costs of US $13,780 for UNEP and US $64,000, plus agency support costs of US $8,320, for UNIDO, as originally submitted.[2]

3. The implementation of stage I of the KIP will assist the Government of Ethiopia 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 $115,260, consisting of US $62,500, plus agency support costs of US $8,125 for UNEP and US $39,500, plus agency support costs of US $5,135, for UNIDO, as originally submitted, for the period of January 2026 to December 2027.

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 Ethiopia as of October 2025.

Table 1. HPMP implementation status for Ethiopia

	Stage I	**Stage II**
Meetings when HPMP was approved/updated	68th	88th/96th
Reduction from baseline	35% by 2020	100% by 2030
Total stage cost (US $)	315,000	685,000
Date of completion (actual/planned)	31 December 2022	31 December 2031

[2] As per the letter of 11 August 2025 from the Federal Democratic Republic of Ethiopia's Environmental Protection Authority to the Secretariat

Status of implementation of previous HFC-related activities

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

Table 2. Previously approved HFC-related activities in Ethiopia

Approval meeting	Project title	Implementing agency	Cost (US $)	Date of completion
74th	Survey of ODS alternatives	UNEP	40,000	August 2017
81st	Enabling activities for HFC phase-down	UNEP	95,000	December 2021

III. HFC consumption overview

HFC consumption levels

7. Ethiopia only imports HFCs for use in the refrigeration and air-conditioning (RAC) and foam sectors. The most consumed substances in 2024 were R-404A (35.5 per cent of total HFC consumption in CO_2-equivalent (CO_2-eq) tonnes), HFC-134a (30.3 per cent), R-407A (14.4 per cent), R-410A (13.8 per cent), HFC-245fa (4.2 per cent) and other HFCs (1.9 per cent). 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. HFC consumption (2020–2024 Article 7 data) and baseline in Ethiopia

HFC	GWP	2020	2021	2022	2023	2024
Metric tonnes (mt)						
HFC-134a	1,430	62.00	59.70	25.00	22.50	42.30
HFC-245fa	1,030	0.00	0.00	17.00	20.50	8.10
R-404A	3,922	25.30	38.00	4.30	4.70	18.08
R-407A	2,107	32.20	22.10	0.00	0.25	13.64
R-407C	1,774	0.00	0.00	0.24	0.25	0.12
R-410A	2,088	12.40	12.40	13.70	14.20	13.18
R-507A	3,985	0.00	0.00	0.14	0.42	0.14
R-508B	6,808	0.00	0.00	0.00	0.00	0.44
Total (mt)		**131.90**	**132.20**	**60.38**	**62.82**	**96.00**
CO_2-eq tonnes						
HFC-134a	1,430	88,660	85,371	35,750	32,175	60,489
HFC-245fa	1,030	0	0	17,510	21,115	8,339
R-404A	3,922	99,216	149,021	16,863	18,432	70,903
R-407A	2,107	67,845	46,565	0	527	28,739
R-407C	1,774	0	0	426	443	213
R-410A	2,088	25,885	25,885	28,599	29,643	27,513
R-507A	3,985	0	0	558	1,674	558
R-508B	6,808	0	0	0	0	2,996
Total (CO_2-eq tonnes)		**281,607**	**306,842**	**99,705**	**104,008**	**199,749**
HFC baseline calculation (CO_2-eq tonnes)						
HFC average consumption in 2020–2022						229,385
HCFC baseline (65%)						117,650
HFC baseline						**347,035**

Country programme implementation report

8. The sectoral HFC consumption data provided by the Government of Ethiopia in its country programme (CP) implementation report for 2024 is consistent with the data reported under Article 7 of the Montreal Protocol.[3]

HFC consumption trends

9. Ethiopia's HFC consumption was stable in 2020 and 2021, decreased significantly in 2022 and was maintained at low level in 2023, mainly due to disruptions caused by conflicts and the security situation in the country; supply chain issues; reduced imports and slow economic recovery from the impact of the COVID-19 pandemic. In 2024, consumption rose sharply, as demand for cooling resumed and expanded, and the phase-out of HCFC-based equipment accelerated, prompting increased reliance on HFC-based equipment and refrigerants.

HFC consumption by sector

10. HFCs are mainly consumed for servicing in commercial refrigeration (40.9 per cent in mt and 47.5 per cent in CO_2-eq tonnes), followed by transport refrigeration (22.3 per cent in mt and 21.5 per cent in CO_2-eq tonnes), mobile air-conditioning (MAC) (15.6 per cent in mt and 11.4 per cent in CO_2-eq tonnes), residential air-conditioning (11.2 per cent in mt and 11.9 per cent in CO_2-eq tonnes) and other subsectors; and a small amount of HFC-245fa is used in foam manufacturing, as shown in tables 4 and 5.[4]

Table 4. HFC consumption in Ethiopia by sector in metric tonnes (2024)

Sector	HFC-134a	HFC-245fa	R-404A	R-407A	R-407C	R-410A	R-507A	Total	Share of total (%)
Manufacturing									
Foam	0.00	8.10	0.00	0.00	0.00	0.00	0.00	8.10	8.9
Subtotal manufacturing	***0.00***	***8.10***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***8.10***	***8.9***
Refrigeration and AC servicing									
Refrigeration subsectors									
Domestic	1.30	0.00	0.00	0.00	0.00	0.00	0.00	1.30	1.4
Commercial	19.51	0.00	11.11	0.08	3.19	0.00	0.00	33.89	37.2
Industrial	4.74	0.00	0.00	0.00	0.18	0.67	0.01	5.60	6.2
Transport	9.54	0.00	1.40	7.32	0.20	0.00	0.00	18.46	20.3
Air-conditioning subsectors									
Residential	0.00	0.00	0.00	0.00	0.02	9.23	0.00	9.25	10.2
Mobile	12.93	0.00	0.00	0.00	0.00	0.00	0.00	12.93	14.2
Commercial	1.31	0.00	0.00	0.04	0.03	0.08	0.03	1.49	1.6
Subtotal servicing	***49.33***	***0.00***	***12.51***	***7.44***	***3.62***	***9.98***	***0.04***	***82.92***	***91.1***
Total	**49.33**	**8.10**	**12.51**	**7.44**	**3.62**	**9.98**	**0.04**	**91.02**	**100**

[3] Negligible difference from the reported Article 7 data in CO_2-eq tonnes due to rounding.

[4] The sectoral data for 2024 included in tables 4 and 5 differs from the Article 7 data, as the former pertains to the use of HFCs in servicing, while the latter presents the consumption of HFCs

Table 5. HFC consumption in Ethiopia by sector in CO_2-eq tonnes (2024)

Sector	HFC-134a	HFC-245fa	R-404A	R-407A	R-407C	R-410A	R-507A	Total	Share of total (%)
Manufacturing									
Foam	0	8,343	0	0	0	0	0	8,343	4.9
Subtotal manufacturing	***0***	***8,343***	***0***	***0***	***0***	***0***	***0***	***8,343***	4.9
Refrigeration and AC servicing									
Refrigeration subsectors									
Domestic	1,859	0	0	0	0	0	0	1,859	1.1
Commercial	27,899	0	43,573	169	5,659	0	0	77,300	45.2
Industrial	6,778	0	0	0	319	1,399	40	8,536	5.0
Transport	13,642	0	5,491	15,423	355	0	0	34,911	20.4
Air-conditioning subsectors									
Residential	0	0	0	0	35	19,272	0	19,307	11.3
Mobile	18,490	0	0	0	0	0	0	18,490	10.8
Commercial	1,873	0	0	84	53	167	120	2,297	1.3
Subtotal servicing	***70,541***	***0***	***49,064***	***15,676***	***6,421***	***20,838***	***160***	***162,700***	***95.1***
Total	**70,541**	**8,343**	**49,064**	**15,676**	**6,421**	**20,838**	**160**	**171,043**	**100**

Refrigeration and air-conditioning servicing sector

11. There are approximately 3,000 technicians and 110 workshops servicing RAC equipment in Ethiopia. Additionally, a large number of workshops service MAC equipment. The RAC sector is predominantly male, with no female technicians currently employed.

Domestic, commercial, industrial and transport refrigeration servicing

12. The refrigeration servicing sector in Ethiopia is characterized by a wide range of applications, from small domestic units to large commercial and industrial systems. Domestic refrigeration represents a minor share of total HFC consumption, mainly using HFC-134a in household refrigerators and freezers, with an estimated 676,900 units in operation nationwide.

13. Commercial refrigeration, including stand-alone units, condenser units, and centralized systems, accounts for around 48 per cent (in CO_2-eq tonnes) of the total HFC use, with approximately 30,200 units operating across the country. The dominant refrigerants in this subsector are HFC-134a and R-404A, reflecting the replacement of HCFC-22 as imports of HCFC-based equipment have declined. These systems are typically installed in supermarkets, butcheries, hotels, hospitals, and food processing facilities, where centralized systems in supermarkets and cold storage facilities are the main contributors. At present, R-600a is used in domestic refrigeration and stand-alone commercial units in the country, though their presence remains limited.

14. Industrial and transport refrigeration is another major subsector, primarily reliant on HCF-134a and R-407A, used in cold chain logistics, agro-processing, and food storage applications. The rapid growth of Ethiopia's agricultural export sector has increased the demand for temperature-controlled storage and refrigerated transport, driving up HFC consumption.

Residential and commercial air-conditioning servicing

15. The air-conditioning (AC) subsector has expanded significantly with the growth of urban centres, commercial buildings, and public infrastructure. Residential AC units predominantly use R-410A, which now represents one of the fastest growing refrigerants in Ethiopia, with an estimated 155,000 units in use.

Commercial AC systems, such as split units, utilize HFC-134a, with consumption trends driven by increasing cooling demand in offices, hospitals, and hotels. AC units using HFC-32-based refrigerants are available in the country.

Mobile air-conditioning servicing

16. The MAC subsector represents a substantial share of HFC use, almost entirely dependent on HFC-134a for servicing vehicle fleets. Approximately 152,000 MAC systems are actively serviced each year, though the total fleet exceeds 380,000 vehicles. Growth in the automotive market and the import of used vehicles with older AC systems continue to drive demand. Limited recovery and recycling capacity, combined with insufficient technician training, contribute to refrigerant losses during servicing.

Foam manufacturing

17. HFC-245fa is used as a blowing agent by about 12 enterprises primarily in foams in refrigeration, building insulation, water heaters, and cold-chain systems. Based on limited inputs from the industry, it is expected that HFC-245fa is consumed as a pure substance; no HFC-245fa contained in imported pre-blended polyol is identified.

IV. Stage I of the Kigali HFC implementation plan as submitted

Institutional, policy and regulatory framework

18. The Government of Ethiopia has designated the Chemical and Hazardous Waste Compliance Monitoring Desk under the Environmental Protection Authority (EPA) as the national focal point for the implementation of the Montreal Protocol. Within this institutional framework, the national ozone unit (NOU) coordinates the execution of activities, supported by the National Ozone Committee (NOC), an advisory body comprising representatives from key ministries, enforcement agencies, and private sector stakeholders engaged in phase-out and phase-down activities. The Ministry of Education, through the Technical and Vocational Education and Training (TVET) system, contributes to capacity-building in the RAC servicing sector, particularly in promoting good practices for the safe handling of refrigerants.

19. The implementation and enforcement of national regulations are carried out in collaboration with the Ethiopia Customs Commission, the Ministry of Revenue, and the Environment, Forest and Climate Change Commission, whose inspectors assist the NOU in monitoring imports of controlled substances. The Ethiopian Standards Authority supports the development of standards aligned with Montreal Protocol requirements, while other national bodies, such as the Chemical and Construction Inputs Development Institute, the Ministry of Trade and Industry, and the Ministry of Water, Irrigation and Electricity contribute to the implementation of phase-out programmes and related environmental initiatives.

20. Ethiopia gazetted its ODS Regulations through Proclamation No. 716/2011, establishing a licensing and quota system for the control of ODS. Since 2024, this system has been extended to include HFCs. The regulations are currently being revised to incorporate HFC phase-down provisions in line with the Kigali Amendment, as well as a ban on the import of new and used HCFC-based equipment by 1 January 2026 and on virgin HCFC refrigerants by 2030. The revised draft regulations have been submitted to ministerial councils for review and are expected to be approved by the end of 2025.

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

Overarching strategy

21. The primary focus of Ethiopia's KIP strategy is to sustain the 2024 HFC consumption freeze achieved and achieve the 10 per cent reduction target by 2029, in line with the Kigali Amendment schedule.

The KIP aims to reduce HFC demand through a combination of regulatory enforcement, capacity development, and technology transition measures. Key priorities include strengthening the licensing and quota system for HFC imports and revising the ODS Regulations under Proclamation No. 716/2011 to incorporate HFC phase-down provisions. The strategy also promotes the safe adoption of low-GWP alternatives, enhances technician training and certification, foam sector assessment and awareness campaign, and supports the establishment of recovery and recycling infrastructure. In parallel, monitoring, verification, and reporting mechanisms will be reinforced to ensure compliance and sustained progress toward Ethiopia's long-term HFC reduction targets.

Proposed reductions

22. Following the severe disruptions over 2022-2023, driven by instability and security situation in the country, drought and inflation, the level of HFC consumption was impacted compared to the original level observed in 2020 and 2021. The HFC consumption trends in 2023-2025 start showing recovery resulted from the end of the local instability, improved security conditions, gradual macroeconomic reforms and high economic growth. HFC consumption in 2024 increased by 52.8 per cent compared to 2023, reflecting Ethiopia's economic recovery and the continued transition from HCFC-based to HFC-based technologies in the RAC and foam sectors. In addition, newly imported uncharged systems will correspond to additional 20-25 per cent of the service demand. This situation, combined with growing demand for cooling in residential, commercial, and cold chain applications, contributes to the projected upward trend.

23. The Government of Ethiopia, UNEP and UNIDO have forecasted HFC consumption under a business-as-usual (BAU) scenario, based on the above circumstances, at a growth rate of 13.5 per cent from 2025 to 2026 based on the fast recovery, and at 7 per cent from 2027 to 2029 consistent with that reported by different regional and international organizations. This projection takes into consideration the consumption of each substance based on its primary applications, population and economic growth trends, current and future HCFC phase-out measures, and the adoption of alternatives to HFCs occurring independently of the Kigali Amendment. Under this scenario, HFC consumption is anticipated to exceed the control level by 2029, as shown in table 6.

Table 6. HFC consumption forecast under the unconstrained scenario, Montreal Protocol limits, and proposed HFC reductions under stage I (CO_2-eq tonnes)

	2025	2026	2027	2028	2029
HFC consumption forecast at an annual growth rate*	226,715	257,322	275,334	294,608	315,230
Montreal Protocol HFC consumption limits	347,035	347,035	347,035	347,035	312,332
HFC consumption levels proposed under the KIP	347,035	347,035	347,035	347,035	312,332
Proposed reductions from the HFC consumption baseline (%)	0	0	0	0	10

* Calculated based on the 2024 consumption (199,749 CO_2-eq tonnes) reported under the CP data as previous consumption and taking into account the expected economic growth, alongside the shift from HCFCs to HFCs.

Proposed activities

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

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

Activity	Agency	Cost (US $)	
		Stage I	First tranche
Regulatory framework strengthening and capacity-building for customs officers Conduct six training sessions, each targeting 25 customs and enforcement officers, on HFC control measures and the prevention of illegal trade (US $30,000); engage a consultant to enhance the HFC licensing and quota system in line with national regulations and Kigali Amendment obligations and assess the feasibility of introducing a ban on HFC-based equipment from 2028 (US $4,000); and improve record-keeping by training 150 customs officers on the HFC import registration system, enhancing information exchange at ports of entry, and conducting workshops for importers on data collection and reporting (US $3,000)	UNEP	37,000	19,000
Capacity-building of RAC technicians Conduct six training and certification sessions, each targeting 25 RAC technicians, on good servicing practices and the safe handling of low-GWP refrigerants (US $30,000); provide institutional support to the TVET system and the RAC association to enhance formalization of the servicing sector (US $4,000); and update codes of practice and technician training curricula to promote refrigerant recovery and recycling, improve energy efficiency, and integrate safety practices for alternative refrigerants (US $3,000)	UNEP	37,000	25,000
Capacity-building for the MAC sector Purchase and supply five recovery units with associated cylinders, four leak detectors, and four electronic scales to selected workshops (US $11,000); and provide technical training for 40 MAC technicians on the safe and effective use of recovery and servicing tools (US $4,000)	UNIDO	15,000	13,000
Promote low-GWP technologies in the commercial refrigeration sector Implement a demonstration project to replace an existing commercial refrigeration installation with R-290-based equipment through the procurement and installation of five stand-alone units, including energy monitoring before and after installation, and documentation (US $15,000); and conduct awareness campaigns targeting end-users and small- and medium-sized enterprises (SMEs) on the impact of high-GWP refrigerants and the benefits of adopting low-GWP and energy-efficient alternatives (US $12,000)	UNIDO	27,000	7,500
Promote low-GWP and energy-efficient technologies in the AC sector Implement a demonstration project to replace existing residential AC units with R-290-based equipment through the procurement and installation of 30 units, including energy monitoring before and after installation, and documentation (US $15,000); and conduct awareness campaigns targeting installers and consumers to promote low-GWP, high-efficiency AC units (US $7,000)	UNIDO	22,000	19,000
Foam sector assessment and awareness campaign Engage a consultant to map the foam sector and collect data on enterprises using polyurethane foam and blowing agents, including HFC-245fa consumption, applications, import practices, and future needs; organize a one-day hybrid workshop to present findings; conduct an awareness campaign by developing and distributing outreach materials on low-GWP options for the foam sector	UNEP	12,000	8,500

Activity	Agency	Cost (US $)	
		Stage I	First tranche
(US $8,500); and prepare a final report summarizing key findings and recommendations (US $3,500)			
Project coordination and monitoring (see paragraph 25)	UNEP	20,000	10,000
Subtotal for UNEP		**106,000**	**62,500**
Subtotal for UNIDO		**64,000**	**39,500**
Total		**170,000**	**102,000**

Project implementation, coordination and monitoring

25. The NOU and the NOC will be responsible for the overall administration of the KIP implementation and monitoring. A budget of US $20,000 is proposed for the recruitment of national consultants (US $12,000); domestic travel and meetings (US $5,000); and other costs (US $3,000).

Total cost of stage I of the Kigali HFC implementation plan

26. The budget for stage I has been proposed at US $170,000. The costs of activities in the refrigeration servicing sector have been proposed in line with decision 92/37.

Implementation plan for the first tranche

27. The first funding tranche of stage I of the KIP was submitted at a total amount of US $102,000, as shown in table 7 above, to be implemented between January 2026 and December 2027. Detailed information on the activities to be implemented under the first tranche, including adjustments and level of funds agreed are presented in paragraph 40 below.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

V. Comments

Overarching strategy

28. UNEP informed the Secretariat that the Government of Ethiopia has developed the National HFC Phase-down Strategy as part of its KIP to ensure compliance with its obligations under the Kigali Amendment. Stage I of the KIP targets a 10 per cent reduction from the established baseline of 347,035 CO_2-eq tonnes, focusing on regulatory strengthening, capacity-building for customs and servicing technicians, promotion of low-GWP refrigerants, and demonstration of alternative technologies in commercial refrigeration and air-conditioning. Stage I also includes an assessment of the foam sector.

29. Noting that the 2024 consumption, after over 50 per cent of growth from that of 2023, is 42 per cent below the HFC baseline for compliance and taking into account that stage I activities will help control growth, the Secretariat consulted UNEP to explore the possibility of Ethiopia committing to a higher reduction target for 2029. Following consultations with relevant stakeholders and policymakers, UNEP informed that in view of the country's situation explained in paragraph 22 above, the Government prefers to maintain the consumption targets at 90 per cent of the HFC baseline, as originally submitted.

Institutional, policy and regulatory framework

HFC licensing and quota system

30. In line with decision 87/50(g), UNEP has confirmed that Ethiopia has an established and enforceable system of licensing and quotas for monitoring HFC imports in place. The country has issued

HFC import quotas for 2025 at 347,035 CO_2-eq tonnes, which is equal to the Montreal Protocol control targets.

Regulatory framework

31. The Secretariat requested clarification regarding the enforcement of bans on the import of HFC-based domestic refrigerators, stand-alone commercial refrigeration units, and residential AC equipment, noting the availability of low-GWP alternative technologies currently on the market, and inquired about the timeline for the introduction of such bans. UNEP explained that Ethiopia is currently managing HFC consumption through an import quota system rather than through outright bans. This approach reflects market readiness and safety considerations, as the adoption of hydrocarbon technologies remains limited, and national safety standards, certification systems, and regulatory frameworks for flammable refrigerants are still under development. In parallel, Ethiopia is prioritizing capacity-building through technician training, the establishment of safety codes, and the strengthening of technical institutions to enable the safe handling and servicing of hydrocarbon-based systems. On further discussion, it was agreed that the request for the second tranche of the KIP would include a detailed report on the development of those bans, including a specific timeline for their implementation.

32. The Secretariat inquired on how the training and certification scheme of the RAC technicians under stage I of the KIP is different form the progress already made under stage II of the HPMP. UNEP explained that Ethiopia is consolidating and expanding the progress achieved under stage II of the HPMP to strengthen the certification system for RAC technicians. The plan supports the safe adoption of low-GWP refrigerants, including hydrocarbons, through advanced training on flammable refrigerants, updated codes of practice, and the establishment of a national certification and accreditation system in coordination with the Ministry of Labor and Skills and the TVET. Building on HPMP achievements, such as standardized curricula aligned with the National TVET Qualification Framework, upgraded training centres, and the integration of good servicing practices, the KIP ensures continuity under the NOU. Together, these efforts enhance technician competence, and safety standards.

Foam manufacturing

33. The Secretariat inquired about the reasons why the foam sector was not included in the initial KIP survey and if there is a plan to include foam conversion project in subsequent stages. UNEP explained that inconsistencies in downstream use data and customs data on HFC-245fa, combined with institutional changes within the NOU and hesitance to share information on the industry side, made it difficult to accurately identify foam sector enterprises and their consumption patterns. Subsequent 2024 CP data indicated that HFC-245fa was used as a pure substance, assumed to be in building construction. Therefore, the inclusion of a dedicated assessment and awareness campaign under stage I of the KIP aims to verify the actual use (pure or pre-blended) and identify relevant data on the enterprises (e.g., the number of enterprises, their consumption, types of products manufactured).

34. Noting the challenges outlined by UNEP, that the country requires additional time to determine the use of HFCs in polyurethane foam and to verify whether there are any HFCs imported in pre-blended polyols, the Secretariat acknowledged the need for further data collection and requested Ethiopia to include, in its submission for the second tranche, the results of the assessment and any relevant information required under decision 96/52, if applicable.

<u>Demonstration projects</u>

35. Two demonstration activities are proposed under stage I of the KIP to introduce R-290 technologies in the refrigeration and AC sectors. The first, an end-user incentive project in stand-alone commercial refrigeration, will support particularly SMEs, to replace existing HFC-134a-based stand-alone units with R-290 systems. This initiative is co-financed through cost-sharing with importers and end users and will

demonstrate the technology's safety, performance, and energy efficiency, supported by technician training and awareness activities under stage II of the HPMP. The second activity is a technology demonstration of R-290-based residential split air conditioners for installation in training institutes and selected public buildings such as ministries, hospitals, and customs offices. These units will serve both for demonstration and for hands-on technician training. Together, these projects aim to overcome market barriers related to availability, safety perceptions, and cost, build local technical capacity, and create initial market demand to enable the future uptake of low-GWP alternatives in Ethiopia.

36. The Secretariat inquired on the scalability and future sustainability, and monitoring arrangement of the demonstration project. UNEP and UNIDO explained that the demonstration activities include a robust monitoring and replication strategy. Monitoring will compare energy consumption before and after installation of the R-290 units, as well as servicing costs, including refrigerant replacement, to assess performance, and energy efficiency. The results will serve as practical evidence to support replication and policy formulation. The replication strategy aims to incentivize distributors to stock and supply R-290-based equipment, improving market availability and confidence in the technology. By showcasing tangible energy and cost benefits, the demonstration will attract private investment, encourage broader adoption, and create the conditions for scaling up low-GWP technologies nationwide. Additionally, importers will benefit from preferential access to suppliers through pricing arrangements negotiated by UNIDO, further enhancing long-term market sustainability.

37. In line with decision 92/36(g), the Secretariat requested UNEP and UNIDO, upon completion of the project, to submit a final report on its implementation, including the HFC phase-out and energy efficiency gains achieved.

Total project cost

38. At the total cost of US $170,000, stage I of the KIP for Ethiopia will result in a reduction of 34,704 CO_2-eq tonnes from the country's HFC consumption eligible for funding.

39. Stage I of the KIP will be implemented in two tranches.

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

40. The first tranche was agreed as submitted in the amount of US $102,000. The agreed plan of action will include the following activities:

(a) *Regulatory framework strengthening and capacity-building for customs officers:* Conduct three training sessions, each targeting 25 customs and enforcement officers, on HFC control measures and the prevention of illegal trade; engage a consultant to enhance the HFC licensing and quota system in line with national regulations and Kigali Amendment obligations and assess the feasibility of introducing HFC quotas and banning HFC-based equipment from 2028; and improve record-keeping by training 150 customs officers on the HFC import registration system, enhancing information exchange at ports of entry, and conducting workshops for importers on data collection and reporting (UNEP) (US $19,000);

(b) *Capacity-building of RAC technicians:* Conduct four training and certification sessions, each targeting 25 RAC technicians, on good servicing practices and the safe handling of low-GWP refrigerants; provide institutional support to the TVET system and the RAC association to enhance formalization of the servicing sector; and update codes of practice and technician training curricula to promote refrigerant recovery and recycling, improve energy efficiency, and integrate safety practices for alternative refrigerants (UNEP) (US $25,000);

(c) *Capacity-building for the MAC sector*: Purchase and supply five recovery units with associated cylinders, four leak detectors, and four electronic scales to selected workshops; and provide technical training for 40 MAC technicians on the safe and effective use of recovery and servicing tools (UNIDO) (US $13,000);

(d) *Promote low-GWP technologies in the commercial refrigeration sector:* Conduct a market survey on potential candidates for the replacement of the existing stand-alone units; and conduct awareness campaigns targeting end-users and SMEs on the impact of high-GWP refrigerants and the benefits of adopting low-GWP and energy-efficient alternatives (UNIDO) (US $7,500);

(e) *Promote low-GWP and energy-efficient technologies in the AC sector*: Implement a demonstration project to replace existing residential AC units with R-290-based equipment through the procurement and installation of 22 units, including energy monitoring before and after installation, and documentation; and conduct awareness campaigns targeting installers and consumers to promote low-GWP, high-efficiency AC units (UNIDO) (US $19,000);

(f) *Foam sector assessment and awareness campaign*: Engage a consultant to map the foam sector and collect data on enterprises using polyurethane foam and blowing agents, including HFC-245fa consumption, applications, import practices, and future needs; and organize a one-day hybrid workshop to present findings (UNEP) (US $8,500); and

(g) *Project coordination and monitoring* (UNEP) (US $10,000): Recruitment of national consultants (US $6,000); domestic travel and meetings (US $3,000); and other costs (US $1,000).

Co-financing

41. The Government of Ethiopia, in collaboration with the private sector, is promoting co-financing initiatives that generate mutual benefits for both ozone protection and climate mitigation. The Government's in-kind contribution includes logistical support, provision of personnel, and facilitation of national coordination to ensure the effective implementation of project activities.

2025–2027 business plan of the Multilateral Fund

42. UNEP and UNIDO are requesting US $170,000, plus agency support costs, for the implementation of stage I of the KIP for Ethiopia. The total value of US $192,100, including agency support costs, requested for the period of 2025–2027, is US $69,755 above the amount in the business plan.

Gender policy implementation

43. UNEP indicated that the Government of Ethiopia recognizes the importance of women's empowerment. National policies and institutional mechanisms are in place to promote women's participation in environmental programmes. Under the KIP, women's equitable access to training, awareness activities, and decision-making roles will be ensured. Efforts will focus on increasing women's participation in the RAC sector, strengthening their representation in associations, and maintaining specific data reporting.

Sustainability of the HFC phase-down and assessment of risks

44. Potential risks to the successful implementation and long-term sustainability of the KIP include delays in finalizing the revised ODS regulations to integrate HFC phase-down provisions, gaps in technician

training and certification, and limited access to low-GWP alternatives and recovery and recycling equipment. In addition, limited institutional capacity following the recent restructuring of the NOU and the predominance of informal servicing activities that hinder enforcement and data collection could constrain progress. To mitigate these risks, the Government of Ethiopia will prioritize capacity-building for the NOU and enforcement agencies, accelerate the approval of the revised regulations, strengthen coordination with the Customs Commission to improve data accuracy and compliance monitoring, and expand technician training and certification programmes through the TVET system. Engagement with industry associations and the private sector will further support the safe and sustainable transition to low-GWP technologies.

Impact on the climate

45. The activities proposed, including efforts to promote low-GWP alternatives, capacity-building for the safe handling of alternatives to HFCs and refrigerant recovery and reuse in the RAC and MAC servicing sectors, the initiation of programmes to improve servicing practices in the MAC sector, and the strengthening of the regulatory framework, indicate that the implementation of stage I of the KIP will reduce refrigerant emissions into the atmosphere, resulting in climate benefits. A calculation of the impact on the climate of the activities in the KIP indicates that by 2029, Ethiopia will have reduced its emissions by approximately 34,704 CO_2-eq tonnes of HFCs, calculated as the difference between the HFC baseline for compliance and the 2029 target, assuming that all consumed HFCs would eventually have been emitted.

Draft Agreement

46. A draft Agreement between the Government of Ethiopia 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

47. The implementation of activities in the servicing sector under stage II of the HPMP and stage I of the KIP will be coordinated through the same institutional framework, led by the NOU within the EPA. Both plans will be implemented using the existing project coordination and monitoring mechanism and through the same network of partners, including the TVET institutions and the RAC association. The HPMP will continue to focus on completing the phase-out of HCFCs and strengthening good servicing and recovery practices, while the KIP will build on these achievements by introducing activities to support the safe adoption of low-GWP refrigerants, enhance technician training and certification, and reinforce regulatory and data management systems. This coordinated approach ensures efficient resource use, avoids duplication of efforts, and provides a seamless transition from HCFC phase-out to HFC phase-down. Annex II summarizes the simultaneous implementation of activities under the HPMP and the KIP.

VI. Recommendation

48. The Executive Committee may wish to consider:

(a) Approving, in principle, stage I of the Kigali HFC implementation plan (KIP) for Ethiopia for the period 2025–2029 to reduce HFC consumption by 10 per cent of the country's baseline, in the amount of US $192,100, consisting of US $106,000, plus agency support costs of US $13,780, for UNEP and US $64,000, plus agency support costs of US $8,320, for UNIDO;

(b) Noting that, upon completion of the end-user project included in stage I of the KIP, UNIDO will submit a final report on the implementation of this project, including the HFC phase-out and energy-efficiency gains achieved, in line with decision 92/36(g);

(c) Noting also that the Government of Ethiopia, through UNEP, will include in its submission of the second tranche of stage I of the KIP, the results of the foam sector assessment and any relevant information required under decision 96/52, if applicable;

(d) Approving the draft Agreement between the Government of Ethiopia 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

(e) Approving the first tranche of stage I of the KIP for Ethiopia and the corresponding tranche implementation plan, in the amount of US $115,260, consisting of US $62,500, plus agency support costs of US $8,125, for UNEP and US $39,500, plus agency support costs of US $5,135, for UNIDO.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF ETHIOPIA 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: 2025–2029)

Purpose

1. This Agreement represents the understanding of the Government of Ethiopia ("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 312,332 CO_2-equivalent (CO_2-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 CO_2-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 monitoring and evaluation work programmes 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 CO_2-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		2025	2026	2027	2028	2029	Total
1.1	Montreal Protocol reduction schedule of Annex F substances	%	freeze	freeze	freeze	freeze	10	n/a
		CO_2-eq tonnes	347,035	347,035	347,035	347,035	312,332	n/a
1.2	Maximum allowable total consumption of Annex F substances	Reduction in %	0	0	0	0	10.0	n/a
		CO_2-eq tonnes	347,035	347,035	347,035	347,035	312,332	n/a
2.1	Lead IA (UNEP) agreed funding (US $)		62,500	0	43,500	0	0	106,000
2.2	Support costs for Lead IA (US $)		8,125	0	5,655	0	0	13,780
2.3	Cooperating IA (UNIDO) agreed funding (US $)		39,500	0	24,500	0	0	64,000
2.4	Support costs for Cooperating IA (US $)		5,135	0	3,185	0	0	8,320
3.1	Total agreed funding (US $)		102,000	0	68,000	0	0	170,000
3.2	Total support costs (US $)		13,260	0	8,840	0	0	22,100
3.3	Total agreed costs (US $)		115,260	0	76,840	0	0	192,100

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the second 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 Environmental Protection Authority (EPA) of the Country, is responsible for monitoring the progress of implementation of activities under the Plan. Monitoring will be carried out throughout the implementation period to ensure efficient and effective execution of activities, overall project coordination, stakeholder engagement, smooth implementation of activities under various tranches, timely delivery of training sessions and other expected outputs, and to facilitate the HFC consumption verification undertaken by the Lead IA.

2. The EPA of the Country will be responsible for ensuring the sustainability of the consumption reduction targets achieved under the 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[s] 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 CO_2-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 ETHIOPIA

Category of activity	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US $)
	Activity	Cost (US $)	Activity	Cost (US $)	
Regulatory framework strengthening and capacity-building for customs officers					
Improvement of the licensing and quota system		213,000	Engage a consultant to enhance the HFC licensing and quota system in line with national regulations and Kigali Amendment obligations and assess the feasibility of introducing HFC quotas and banning HFC-based equipment from 2028	37,000	250,000
Border dialogues with neighbouring countries	Strengthen the enforcement of ODS regulations including capacity enhancement of customs officers, consumer protection officers, and other law enforcement officers by conducting border dialogues with neighbouring countries on preventing illegal trade of controlled substances and counterfeit refrigerants				
Development of national standards	Develop national standards for the safe installation, transportation, storage, operation, and maintenance of energy-efficient, low-GWP RAC equipment in collaboration with the Ethiopian Standards Agency				
Training of standards and environmental officers	Capacity-building of standards officers and environmental and enforcement officers on monitoring and enforcement of the standards				
Training material	Update the customs training curriculum, including through the use of UNEP OzonAction-developed training resources, and in line with the 2024 ban on the import of HCFC-based equipment				
Training of customs officers	Train trainers and customs and law enforcement officers in ODS regulations, and identifying ODS and counterfeit refrigerants		Train customs and enforcement officers on HFC control measures and prevention of illegal trade		
	Conduct monitoring and inspections of imported equipment to ensure compliance with the standards				

Category of activity	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US $)
	Activity	Cost (US $)	Activity	Cost (US $)	
Standards on procurement of low-GWP technologies	Develop policies on procurement of energy-efficient low-GWP RAC equipment in public institutions				
Training of procurement officers	Train procurement officers on developed policies				
Training of customs officers on record-keeping			Improve record-keeping by training customs officers on the HFC import registration system, enhancing information exchange at ports of entry, and conducting workshops for importers on data collection and reporting		
Capacity-building of RAC technicians					
Training material	Update the national code of conduct for RAC technicians to address the safe handling of flammable refrigerants and servicing of low-GWP-based equipment, and update the technician training curriculum, accordingly, including through the use of relevant training materials developed by OzonAction, and develop a fee-based certification scheme	135,000	Update codes of practice and technician training curricula to promote refrigerant recovery and recycling, improve energy efficiency, and integrate safety practices for alternative refrigerants	37,000	172,000
Training of RAC technicians	Train and certify RAC technicians on good servicing practices		Train and certify RAC technicians on good servicing practices and the safe handling of low-GWP refrigerants		
National institutional support	Build the capacity of the RAC association on the certification process		Provide institutional support to the TVET system and the RAC association to enhance formalization of the servicing sector		
Capacity-building for the MAC sector					
Provision of equipment and tools			Purchase and supply recovery units, cylinders, leak detectors, and electronic scales to selected workshops	15,000	15,000
Training of MAC technicians			Provide technical training for MAC technicians on the safe and effective use of recovery and servicing tools		

Category of activity	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US $)
	Activity	Cost (US $)	Activity	Cost (US $)	
Foam sector survey					
Sector survey			Conduct an assessment on the foam sector to establish a baseline assessment of HFC-245fa consumption by identifying key foam manufacturers and engaging stakeholders for future conversion planning and funding opportunities	12,000	12,000
Promote low-GWP technologies in the commercial refrigeration sector					
Promotion of low-GWP technologies			Implement a demonstration project replacing existing commercial refrigeration units with R-290-based equipment	27,000	27,000
Awareness campaigns			Conduct awareness campaigns targeting end-users and SMEs on the impact of high-GWP refrigerants and the benefits of adopting low-GWP and energy-efficient alternatives		
Promote low-GWP and energy-efficient technologies in the AC sector					
Promotion of low-GWP technologies			Implement a demonstration project replacing existing residential AC units with R-290-based equipment	22,000	22,000
Awareness campaigns			Conduct awareness campaigns targeting installers and consumers to promote low-GWP, high-efficiency AC units		
Strengthen the vocational training centres and establish three reclamation centres					
Provision of equipment and tools	Procure tools and equipment to the vocational training centres supported under stage I	187,000			187,000
Development of business model for reclamation centres	Develop a business model for the operation of and establish three reclamation centres, to be identified through a local competitive process, including procurement of necessary equipment				

Category of activity	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US $)
	Activity	Cost (US $)	Activity	Cost (US $)	
Additional activities to maintain energy efficiency for the servicing sector under decision 89/6(b)					
Capacity-building for the implementation of MEPS	Coordination meetings and workshops; train RAC technicians, customs officers and compliance monitoring and enforcement experts; educational field visit for key stakeholders on the establishment of labelling system and energy efficiency standards in other countries in Africa	61,000			61,000
Awareness-raising and outreach	Develop communication tools; conduct awareness-raising campaigns and develop materials	39,000			39,000
Coordination, monitoring, reporting and evaluation					
Coordination and monitoring	Project coordination and monitoring	50,000	Project coordination and monitoring	20,000	70,000
Total		**685,000**		**170,000**	**855,000**
Percentage of total (%)		**80.1**		**19.9**	**100.0**