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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: ZAMBIA

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

Zambia

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

ARTICLE 7 DATA (Annex F)	Year: 2025	280.26 mt	630,785 CO ₂ -eq tonnes
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COUNTRY PROGRAMME SECTORAL DATA (CO₂-eq tonnes) AND ACTIVITIES								Year: 2025	
	Aerosol	Foam	Fire-fighting	Air-conditioning (AC) and refrigeration			Servicing	Solvent	Other
				Manufacturing					
				Refrigeration	AC	Other			
HFCs							612,575		
Planned activities agreed (Y/N)							Y		

AVERAGE 2020–2022 HFC CONSUMPTION IN SERVICING	279.85 mt	593,686 CO ₂ -eq tonnes
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BASELINE DATA (CO₂-eq tonnes)	2020	2021	2022	Average 2020–2022
HFC annual consumption	293,732	672,741	814,585	593,686
HCFC baseline (65%)				105,827
HFC baseline				699,513

HFC CONSUMPTION ELIGIBLE FOR FUNDING (CO₂-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	699,513	699,513	699,513	629,562	n/a	
	Maximum allowable	699,513	699,513	699,513	629,562	n/a	
	Reduction from baseline (%)	0.0	0.0	0.0	10.0	n/a	
Project costs requested in principle (US \$)	UNEP	Project costs	103,375	0	76,625	0	180,000
		Support costs	13,439	0	9,961	0	23,400
	UNIDO	Project costs	90,000	0	55,000	0	145,000
		Support costs	11,700	0	7,150	0	18,850
Total amounts recommended in principle (US \$)		Project costs	193,375	0	131,625	0	325,000
		Support costs	25,139	0	17,111	0	42,250
		Total funds	218,514	0	148,736	0	367,250

* 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 Zambia, 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 \$367,250, consisting of US \$180,000, plus agency support costs of US \$23,400, for UNEP and US \$145,000, plus agency support costs of US \$18,850, for UNIDO, as originally submitted.²

3. The implementation of stage I of the KIP will assist the Government of Zambia 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 \$218,514, consisting of US \$103,375, plus agency support costs of US \$13,439, for UNEP and US \$90,000, plus agency support costs of US \$11,700, for UNIDO, as originally submitted, for the period of July 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 Zambia as of May 2026.

Table 1. HPMP implementation status for Zambia

Particulars	Stage I	Stage II
Meetings when HPMP was approved or updated	64 th	86 th / 94 th
Reduction from baseline	35% by 2020	100% by 2030
Total stage cost (US \$)	315,000	685,000
Date of completion (actual or planned)	1 June 2023	31 December 2031

Status of implementation of previous HFC-related activities

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

² As per the letter of 2 March 2026 from the Ministry of Green Economy and Environment of Zambia to the Secretariat

Table 2. Previously approved HFC-related activities in Zambia

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

III. HFC consumption overview

HFC consumption levels

7. Zambia only imports HFCs for use in the refrigeration and air-conditioning (RAC) servicing sector. The most consumed substances in 2025 were R-404A (31.9 per cent of total HFC consumption in CO₂-equivalent (CO₂-eq) tonnes), HFC-134a (27.0 per cent), R-407A (18.3 per cent), and other HFCs (22.8 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. 2020–2025 HFC consumption and baseline for Zambia (Article 7 data)

HFC	GWP	2020	2021	2022	2023	2024	2025
Metric tonnes (mt)							
HFC-32	675	0.00	0.0	0.0	0.0	2.00	3.00
HFC-134a	1,430	35.00	91.96	135.00	137.20	125.01	119.13
R-404A	3,921.6	9.40	61.60	72.00	74.0	54.30	51.25
R-407A*	2,107	0.00	0.00	0.00	0.00	0.00	54.66*
R-407C	1,773.85	58.60	70.30	77.50	78.0	51.00	0.00*
R-410A	2,087.5	15.30	44.30	51.23	52.1	33.00	34.70
R-507A	3,985	17.80	20.70	23.78	22.56	16.00	17.52
Total (mt)		136.10	288.86	359.51	363.86	281.31	280.26
CO₂-eq tonnes							
HFC-32	675	0	0	0	0	1,350	2,025
HFC-134a	1,430	50,050	131,503	193,050	196,196	178,764	170,356
R-404A	3,921.6	36,863	241,571	282,355	290,198	212,943	200,982
R-407A*	2,107	0	0	0	0	0	*115,169
R-407C*	1,773.85	103,948	124,702	137,473	138,360	90,466	*0
R-410A	2,087.5	31,939	92,476	106,943	108,759	68,888	72,436
R-507A	3,985	70,933	82,490	94,763	89,902	63,760	69,817
Total (CO₂-eq tonnes)		293,732	672,741	814,585	823,415	616,171	*630,785
* R-407A consumption was mistakenly entered instead of R-407C. See explanation in paragraph 8							
HFC baseline calculation (CO₂-eq tonnes)							
Average HFC consumption in 2020–2022						593,686	
HCFC baseline (65%)						105,827	
HFC baseline						699,513	

Country programme implementation report

8. The sectoral HFC consumption data provided by the Government of Zambia in its country programme (CP) implementation report for 2025 is inconsistent with the data reported under Article 7 of the Montreal Protocol, as Article 7 data included 54.66 metric tonnes (mt) (115,169 CO₂-eq tonnes) of R-407A, while CP data included 54.66 mt (96,959 CO₂-eq tonnes) of R-407C. The use of R-407C is more consistent with the country's consumption trends, since 2025 was the first instance of reporting R-407A. The national ozone unit (NOU) has notified the Ozone Secretariat and is in the process of updating the

information on the website. Once the change has been made, the total HFC consumption for 2025 as reported under Article 7 should equal the total consumption of 612,575 CO₂-eq tonnes reported under the CP data.

HFC consumption trends

9. The consumption of all HFCs in the country fluctuated over the 2020–2025 period, with the lowest consumption reported in 2020 at 293,732 CO₂-eq tonnes, and the highest in 2023 at 823,415 CO₂-eq tonnes, and the 2025 consumption at 612,575 CO₂-eq tonnes. The high consumption during 2022 and 2023 is most likely due to stockpiling in anticipation of the compliance target in 2024. The HFC quota and licensing system has been in place since 2021. Before the 2024 control measure of freeze at HFC baseline level, the consumption had been steadily increasing, especially for R-404A and R-407C, attributed to an increased demand for cold rooms and reduction in HCFC-22 consumption. Import quotas for 2026 are set at 631,690 CO₂-eq tonnes, which is 9.7 per cent below the HFC baseline.

HFC consumption by sector

10. In 2024, HFCs were mainly consumed for servicing in mobile air-conditioning (MAC) (39.0 per cent in mt and 25.4 per cent in CO₂-eq tonnes), commercial refrigeration (21.7 per cent in mt and 24.7 per cent in CO₂-eq tonnes), industrial refrigeration (20.6 per cent in mt and 30.3 per cent in CO₂-eq tonnes), and other subsectors, as shown in tables 4 and 5.

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

Sector	HFC-32	HFC-134a	R-404A	R-410A	R-407C	R-507A	Total	Share of total (%)
Refrigeration subsectors								
Domestic		3.74					3.74	1.33
Commercial		4.13	13.75		35.92	7.17	60.96	21.67
Industrial		6.11	31.06		11.96	8.83	57.96	20.60
Transport		1.1	9.49				10.59	3.76
Air-conditioning subsectors								
Residential	2.00			18.67	1.92		22.58	8.03
Commercial		0.34		14.35	1.20		15.89	5.65
Mobile		109.59					109.59	38.96
Total (mt)	2.00	125.01	54.30	33.00	51.00	16.00	281.31	100

Table 5. 2024 HFC consumption in Zambia in the servicing subsectors in CO₂-eq tonnes (2024)

Sector	HFC-32	HFC-134a	R-404A	R-410A	R-407C	R-507A	Total	Share of total (%)
Refrigeration subsectors								
Domestic		5,354					5,354	0.87
Commercial		5,910	53,905		63,713	28,579	152,107	24.69
Industrial		8,730	121,820		21,218	35,186	186,954	30.34
Transport		1,575	37,205				38,780	6.29
Air-conditioning subsectors								
Residential	1,349			38,957	3,398		43,704	7.09
Commercial		484		29,939	2,134		32,557	5.28
Mobile		156,716					156,716	25.43
Total (CO₂-eq t)	1,349	178,769	212,930	68,896	90,463	63,765	616,171	100

Refrigeration and air-conditioning servicing sector

11. There are approximately 685 technicians (including 110 women), 100 registered MAC workshops, and around 200 RAC workshops consuming HFCs in Zambia, with about 65 per cent of technicians formally trained. Of all technicians, about 390 specialize in unitary air conditioners and/or domestic refrigeration, 165 work on MAC systems, 70 work on transport refrigeration, and 60 work on commercial and industrial refrigeration. A mandatory competency-based certification scheme has been in place since 2015 for ozone-depleting substances (ODSs) and was updated in 2021 to include HFCs. HFC recovery and recycling during equipment maintenance is mandatory.

12. The NOU has an active memorandum of understanding with the Northern Training College (NORTEC) to train technicians in good refrigeration practices. NORTEC is the only institution in the country with a programme for refrigeration technicians. The recognition of prior learning (RPL) certification scheme has been established and is fully operational. The programme is jointly implemented at a technical and vocational education and training facility and delivered in collaboration with a nationally accredited trainer to ensure compliance with national standards and quality assurance requirements. In 2025, a total of 13 technicians successfully underwent the RPL assessment and certification process with regard to occupational standards and became formally certified.

13. Zambia relies on imported refrigerants for servicing the installed equipment base, as there is no local assembly or manufacturing of RAC equipment. Trained technicians identify leaks, safely recover refrigerants with suitable equipment, and maintain systems to prevent emissions.

Domestic, commercial, industrial and transport refrigeration servicing

14. Domestic refrigeration consists of domestic refrigerators and freezers, commercial refrigeration consists of stand-alone systems and condensing units, industrial refrigeration consists of centralised units and process chillers, and transport refrigeration consists of refrigerated trucks. In terms of metric tonnage, centralised units constitute 92 per cent of industrial refrigeration and condensing units constitute 98 per cent of commercial refrigeration. HFCs are used in the servicing of 57 per cent of the total stock of domestic refrigeration, 73 per cent of commercial refrigeration, 100 per cent of industrial refrigeration, and 100 per cent of transport refrigeration equipment.

Residential and commercial air-conditioning servicing

15. Residential air-conditioning (AC) consists of split non-ducted systems and split ducted units and commercial AC consists of rooftop ducted units, multi-split units, and chillers. HFCs are used to service 86 per cent of the total stock of residential AC and 99 per cent of commercial AC equipment.

Mobile air-conditioning servicing

16. MAC consists of large and small vehicles. HFCs are used to service 100 per cent of the total stock of MAC systems.

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

Institutional, policy and regulatory framework

17. The Zambia Environmental Management Agency (ZEMA) is a focal point for all activities under the Montreal Protocol. The NOU, established within ZEMA, coordinates the implementation of all relevant activities including CP reporting, provides logistical and enforcement mechanisms, and raises awareness among importers, refrigeration technicians, customs officers, and the general public. The national ozone committee (NOC), consisting of representatives of institutions listed below, is responsible

for the management and monitoring of issues related to the ozone layer, including appropriate mitigation and adaptation measures, and guides the implementation of Montreal Protocol programmes. The NOU collaborates with the Refrigeration and Air-Conditioning Association of Zambia (RAAZ) on establishing the code of conduct for refrigeration technicians and monitoring their servicing practices, with NORTEC on training the refrigeration technicians, and with the Zambia Revenue Authority (ZRA), including customs officers and environmental inspectors, on refrigerant import and export control and the application and enforcement of harmonized system (HS) codes for controlled substances including HFCs, ensuring proper classification, declaration and compliance with licensing and quota requirements applicable to refrigerants and refrigerant-based equipment entering or leaving the country. Other institutions involved in the implementation of the KIP include the Zambia Police Service, Zambia Bureau of Standards, Ministry of Energy, Ministry of Justice, Ministry of Trade, Commerce and Industry, Ministry of Technology and Science, Zambia Association of Trade and Manufacturing, and the Energy Regulation Board.

18. The Environmental Management Act No. 12 of 2013 (“the Act”) contains the main licensing regulations related to the environment in Zambia. The ODS Control Regulations, gazetted in 2000 to control the import and export of ODSs and ODS-dependent equipment, were amended in 2009 to include HCFCs and integrated within the Act. In 2021, the Act was further revised to include the HFC Control Regulations for the import and export of alternatives to ODS, such as HFCs, ammonia (NH₃), carbon dioxide (CO₂) and hydrocarbons (HCs). The regulations establish a mandatory licensing system for all refrigerant importers, who must apply for and obtain a valid annual import license and comply with all reporting and regulatory pre-requirements. In addition to licensing, a quota system has been established and is fully operational, allocating import quotas for HFCs to licensed importers on an annual basis in line with the country’s obligations under the Kigali Amendment. The regulations also govern the servicing, repair, installation, commissioning, and decommissioning of RAC appliances, with a strict prohibition for untrained and uncertified personnel to undertake such activities. Licensed importers of ODS and HFCs are only requested to supply information on imports of alternatives such as NH₃, CO₂ and HCs to the NOU on a voluntary basis.

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

Overarching strategy

19. Stage I of the KIP for Zambia will focus on building capacity in the residential AC, commercial refrigeration and MAC servicing sectors, training, raising awareness, demonstration projects and support to local associations. Activities are expected to reduce consumption by strengthening leak prevention and recovery in servicing (notably MAC and commercial/industrial refrigeration), enforcing the licensing/quota system to curb high-GWP imports, and piloting low-GWP systems. Building on the achievements of stages I and II of the HPMP, the KIP will further update the codes of practice and training curricula for RAC technicians, update the customs training programme, strengthen the HFC licensing and quota system, provide tools and equipment for training programmes, build awareness on HFC phase-down among importers, servicing enterprises and other stakeholders, carry out and monitor results of pilot projects at supermarkets, and improve refrigerant recovery in the MAC sector. The proposed reduction of HFC consumption to be achieved by 2029 amounts to 10 per cent of the baseline, i.e., 26.15 mt or 69,951 CO₂-eq tonnes.

Proposed reductions

20. HFC consumption from 2025 to 2030 is projected to grow at an estimated annual rate of 4.0 per cent. At this rate, consumption in 2027 would exceed Montreal Protocol targets in the absence of intervention. Stage I of the KIP proposes to control the growth of HFC consumption to achieve a 10 per cent reduction from the baseline (i.e., a reduction of 69,951 CO₂-eq tonnes from the freeze levels). Table 6 presents the Montreal Protocol limits, HFC consumption forecast and the proposed reductions for the period 2024 to 2030.

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

	2024	2025	2026	2027	2028	2029	2030
HFC consumption forecast at an annual growth rate of 4 %*	616,171	657,092	682,725	709,383	737,107	765,940	795,927
Montreal Protocol HFC consumption limits	699,513	699,513	699,513	699,513	699,513	629,562	629,562
HFC consumption levels proposed under the KIP	n/a	n/a	699,513	699,513	699,513	629,562	629,562
Proposed reductions from the HFC consumption baseline (%)	n/a	n/a	0.0	0.0	0.0	10.0	10.0

* Calculated based on the average annual economic growth rate of 4 per cent from 2025 to 2030 plus estimated transition from HCFC-22 to R-404A and R-410A of 16,274 CO₂-eq tonnes annually.

Proposed activities

21. 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 Zambia, as submitted

Activity		Agency	Stage I	1st tranche
<i>Component 1: Strengthening the regulatory framework and control mechanisms</i>				
1.1	Awareness-raising campaigns on regulations for importers and other stakeholders	UNEP	10,000	5,000
1.2	Strengthening of the HFC licensing and quota system	UNEP	5,000	3,000
1.3	Training of 175 customs and other enforcement officers on the identification of refrigerants and equipment, including new energy-efficient technologies in the RAC sector, the use of refrigerant identifiers, procedures for verifying import permits, and detecting misclassification or illegal trade (5 workshops)	UNEP	35,000	17,500
1.4	Strengthening of the record-keeping practices by the customs and reporting by enterprises	UNEP	5,000	2,500
1.5	Updating and revising the customs training programme to incorporate new HS codes for HFCs and low-GWP alternatives	UNEP	5,000	5,000
1.6	Improved continuous market monitoring, including surveys	UNEP	10,000	5,000
	<i>Subtotal component 1</i>		70,000	38,000
<i>Component 2: Capacity building of RAC technicians</i>				
2.1	Updating the code of practice and training curriculum for RAC technicians	UNEP	17,500	17,500
2.2	Training of 250 refrigeration technicians on sound servicing of RAC technologies and safe handling of low-GWP refrigerants (10 sessions)	UNEP	50,000	25,000
2.3	Awareness-raising campaigns for end users on the benefits of low-GWP, energy-efficient technologies	UNEP	10,000	5,000
	<i>Subtotal component 2</i>		77,500	47,500
<i>Component 3: Capacity building of RAC/MAC technicians and strengthening MAC workshops</i>				
3.1	Provision of tools and equipment ³ to two centres for training on cooling systems based on CO ₂ and NH ₃	UNIDO	30,000	15,000

³ Including inter alia charging rigs, vacuum pumps, manifold gauges, hoses, cylinders, charging units, multimeters, leak detectors, recovery stations, and brazing equipment.

Activity		Agency	Stage I	1st tranche
3.2	Provision of tools and equipment ⁴ to 20 MAC workshops and training of MAC technicians on HFO-1234yf and HFC-134a	UNIDO	45,000	22,500
	Subtotal component 3		75,000	37,500
Component 4: Facilitating the introduction of low-GWP technologies in RAC				
4.1	Raising awareness on low-GWP technologies among commercial refrigeration stakeholders and identification of beneficiaries	UNIDO	5,000	5,000
4.2	Pilot project to demonstrate improved refrigeration practices and efficient and environmentally friendly technologies by converting a commercial refrigeration system from R-404A to CO ₂ at a supermarket	UNIDO	45,000	45,000
4.3	Monitoring of and reporting on the new (CO ₂) and old (R-404A-based) commercial refrigeration systems	UNIDO	15,000	0
4.4	Awareness-raising campaigns for end users and enterprises	UNIDO	5,000	2,500
	Subtotal component 4		70,000	52,500
Component 5: Coordination and management				
5.1	Coordination and management of KIP implementation	UNEP	32,500	17,875
	Subtotal component 5		32,500	17,875
	Total		325,000	193,375
	Subtotal for UNEP		180,000	103,375
	Subtotal for UNIDO		145,000	90,000

Project implementation, coordination and monitoring

22. The implementation of all KIP activities will be regularly monitored and relevant data will be collected by the NOU, NOC, and RAAZ to measure progress against performance criteria. The NOU will produce quarterly reports on progress in the implementation. A budget of US \$32,500 is proposed for a locally recruited consultant (US \$15,000), travel (US \$7,500), and meetings (US \$10,000).

Total cost of stage I of the Kigali HFC implementation plan

23. The budget for stage I has been proposed at US \$325,000. The costs of activities in the refrigeration servicing sector have been proposed in line with decision 92/37.

Implementation plan for the first tranche

24. The request for the first funding tranche of stage I of the KIP was submitted in the total amount of US \$193,375, as shown in table 7 above, to be implemented between July 2026 and December 2027. 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

HCFC consumption

25. The Secretariat noted that the 2025 consumption of HCFC-22 was reported at 32.56 mt (1.79 ODP tonnes), which is 10.2 per cent above the Montreal Protocol control targets and the maximum allowable total consumption of Annex C, Group I substances (1.625 ODP tonnes). The country reviewed

⁴ Including inter alia recovery machines, manifold gauges, lock rings, vacuum pumps, cylinders, charging units, and hand tools.

the data and explained that this was due to a data entry error, where “32.56” was entered instead of “23.56”. The country has contacted the Ozone Secretariat to correct the error and will submit the same correction to the CP data centre.

Overarching strategy

26. The country’s 2024 HFC consumption was initially reported at 381.68 mt and later revised downward to 281.31 mt based on the findings of a national KIP survey conducted in 2023–2024, which provided updated and more accurate sectoral consumption data, cross-checked and validated against official import records obtained from the ZRA through the ASYCUDA⁵ system, as well as data from the Zambia Statistics Agency. During the review, discrepancies were identified, particularly relating to double reporting between refrigerant mixtures and their individual components. These inconsistencies have now been addressed through data reconciliation measures, including the elimination of duplicate entries and improved classification of substances. In 2020, the country recorded low overall consumption, which can be attributed to the COVID-19 pandemic affecting the movement of goods. The increase in the consumption of R-404A and R-407C is attributed to the retrofitting of HCFC-22 equipment with those substances as part of the HCFC phase-out and an increased demand for cold rooms in agriculture. The consumption of R-410A increased after 2015, when most dealers in the country stopped selling equipment using HCFC-22.

Institutional, policy and regulatory framework

HFC licensing and quota system

27. In line with decision 87/50(g), UNEP confirmed that Zambia had an established and enforceable system of licensing and quotas for monitoring HFC imports and exports in place. The overall import quota for HFCs for 2026 was determined at 290 mt or 631,690 CO₂-eq tonnes (90.3 per cent of the baseline) and distributed among 10 registered importers. Unregistered enterprises are not allowed to import.

Technical and cost-related issues

28. The Secretariat sought more information on the sustainability of the RAC technician training programme and whether online tools could be used to enhance training, UNEP explained that training sustainability would be ensured through a certification system, where renewal requires periodic refresher training on emerging RAC technologies. Online training platforms (e.g., Universal Training Kit) are available and support continuous learning; however, limited Internet access in some areas remains a constraint.

29. The Secretariat requested additional information on the proposed demonstration project in the commercial refrigeration subsector which would showcase improved refrigeration practices and demonstrate efficient and environmentally friendly technologies. UNIDO explained that an initial workshop would be conducted to engage potential participants, after which the interested facilities would be assessed based on predefined criteria including housekeeping practices and equipment capacity. The selected facility will receive direct support through the implementation of the pilot project, while others will benefit indirectly through knowledge sharing and replication of best practices. The equipment for a CO₂ refrigeration system at a supermarket that will be procured during the pilot would include a 5-10 kW capacity condensing unit, evaporator, pipes, valves, and the first charge of CO₂ gas. The beneficiary would cover the installation cost, i.e., approximately 25 per cent of total replacement cost. The monitoring study will take place at the selected pilot facility and both the existing system (prior to decommissioning) and the new CO₂ system (post-installation) will be monitored and reported on. In line with decision 92/36(g), the

⁵ ASYCUDA (Automated System for Customs Data) is a computerized customs management system developed by the United Nations Conference on Trade and Development.

Secretariat requested UNIDO, upon completion of the project, to submit a final report on its implementation including the HFC phase-out and energy-efficiency gains achieved.

30. Upon the Secretariat's enquiry regarding the sustainability of customs training, UNEP confirmed that it would be ensured by integrating the training into the customs in-house training programme, targeting both customs officers and RAC importers through joint sessions. UNEP also explained that the objective of strengthening record-keeping practices by the customs and reporting by enterprises was to strengthen coordination and ensure consistency in data reporting between the two groups, as it had been observed that discrepancies sometimes existed between customs data and importer records; therefore, training would align their understanding and reporting practices, as well as guide importers on how customs capture import data so they can maintain accurate records.

Total project cost

31. At a total cost of US \$325,000, stage I of the KIP for Zambia will result in a reduction of 69,951 CO₂-eq tonnes from the country's HFC baseline.

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

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

33. The agreed plan of action to be implemented between July 2026 and December 2028 will include the following activities:

- (a) *Strengthening the regulatory framework and control mechanisms* (UNEP): Organization of an awareness-raising workshop on regulations for at least 94 importers and other key stakeholders (US \$5,000); strengthening of the HFC licensing and quota system by hiring a specialist to develop a single-window information system for the NOU (US \$3,000); training of at least 87 customs and enforcement officers on the identification of refrigerants and equipment (including new energy-efficient technologies in the RAC sector), use of refrigerant identifiers, procedures for verifying import permits and detecting misclassification or illegal trade (US \$17,500); strengthening record-keeping practices by the customs and quarterly reporting by enterprises through training of at least 47 importers (US \$2,500); updating and revision of the customs training programme to incorporate new HS codes, low-GWP alternative refrigerants and HFCs (US \$5,000); and promotion of the enhanced monitoring of HFC consumption, improved knowledge of market conditions and trends, and increased knowledge of illegal trade in HFCs, including surveys (US \$5,000) (total of US \$38,000);
- (b) *Capacity-building for RAC technicians* (UNEP): Updating the code of practice and training curriculum for RAC technicians to cover refrigerant recovery, emission reduction, energy efficiency, safety with alternatives and servicing procedures; and printing and dissemination of at least 500 copies of the code (US \$17,500); training of 125 RAC technicians in the sound servicing of RAC technologies and safe handling of low-GWP refrigerants (US \$25,000); and organization of an awareness-raising campaign for the general public on the benefits of using low-GWP and energy-efficient technologies (US \$5,000) (total of US \$47,500);
- (c) *Capacity-building for RAC/MAC technicians and strengthening of MAC workshops* (UNIDO): Provision of tools and equipment⁶ for training on CO₂ and NH₃ refrigeration

⁶ Including inter alia charging rig, vacuum pumps, manifold gauges, hoses, cylinders, charging units, multimeters, leak detector, recovery station, and brazing equipment.

(US \$15,000); procurement of 10 sets of tools and equipment⁷ for 10 workshops; and training of MAC technicians on HFO-1234yf and HFC-134a (US \$22,500) (total of US \$37,500);

- (d) *Facilitating the introduction of low-GWP technologies in RAC* (UNIDO): Organization of a workshop to raise awareness and create dialogue with commercial refrigeration stakeholders about low-GWP refrigeration systems (US \$5,000); pilot project to demonstrate improved refrigeration practices and efficient and environmentally friendly technologies by converting a commercial refrigeration system from R-404A to CO₂ at a supermarket (US \$45,000); and organization of an awareness-raising campaign targeting end users, business owners, facility engineers and importers in the commercial and industrial AC sector (US \$2,500) (total of US \$52,500); and
- (e) *Project monitoring* (UNEP): Locally recruited consultants (US \$9,500), travel (US \$1,375) and meetings (US \$7,000) (total of US \$17,875).

Co-financing

34. The pilot project in the commercial refrigeration subsector envisages that the end user will provide the necessary infrastructure and civil works, representing 25 per cent of total replacement cost.

2026–2028 business plan of the Multilateral Fund

35. UNEP and UNIDO are requesting US \$325,000, plus agency support costs, for the implementation of stage I of the KIP for Zambia. The total value of US \$367,250, including agency support costs, requested for the period of 2026–2028, is US \$144,972 above the amount in the business plan.

Gender policy implementation

36. In line with decisions 84/92(d), 90/48(c) and 92/40(b), the Government of Zambia has incorporated the Multilateral Fund gender mainstreaming policy into the preparation and formulation of stage I of the KIP. Building on the achievements of the HPMP, efforts will be made under the KIP to integrate specific indicators into the planning, implementation, and reporting processes of each component, focusing on supporting gender-balanced participation in the training and capacity-building activities. Outreach activities including public forums and information sessions will also target balanced participation. Non-budgeted activities will be implemented ensuring inter alia that all training and information materials address both men and women, and that efforts are made to ensure balance in the project board and management team and among consultants, and to encourage active participation in training and consultation workshops.

Sustainability of the HFC phase-down and assessment of risks

37. Zambia has a robust regulatory and enforcement framework for compliance with the HFC phase-down targets. To reduce direct and indirect emissions from obsolete and inefficient RAC equipment and shift the cooling industry to more environmentally friendly refrigerants and to guarantee long-term, steady decrease in greenhouse gas emissions, Zambia has implemented the minimum energy performance standards and restrictions on used equipment containing HCFCs, and it intends to introduce tighter regulations on equipment using high-GWP refrigerants. The KIP focuses on increasing the capacity of the MAC and commercial refrigeration sectors through awareness-building, pilot projects and training. This knowledge transfer will help with the adoption of new technologies and ensure long-term sustainability of skills and expertise. The sustainability of customs officers' training will be ensured by integrating it into the customs in-house training programme.

⁷ Including inter alia manifold gauges, lock rings, vacuum pumps, cylinders, charging unit, and hand tools.

38. The main risks to KIP's sustainability that were identified for Zambia include potential supply chain constraints that may limit the local availability of low-GWP technologies; influx of HFC-based RAC equipment; and increased demand for domestic AC. The availability of alternative refrigerants depends on several factors, including pricing. To mitigate these risks, importers will engage in resolving import challenges; tax waivers will be granted to importers of energy-efficient, low-GWP refrigerants; and leak prevention will become a key component of both HPMP and KIP training activities.

Impact on the climate

39. The activities proposed, including efforts to promote low-GWP alternatives and refrigerant recovery and reuse, minimize the use and leakage of HFC-134a in the MAC servicing sector, revisions to relevant regulations, and training for technicians and importers, 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, Zambia will have reduced its HFC emissions by approximately 69,951 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

40. A draft Agreement between the Government of Zambia 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

41. The implementation of stage II of the HPMP for Zambia will bring about the complete phase-out of HCFCs in the country by 2030. Stage II of the HPMP prioritizes the strengthening of national capacity through training and certification of refrigeration servicing technicians in the handling of low/zero-GWP refrigerants, development and implementation of national safety and technical standards for flammable technologies, awareness-raising, public procurement of RAC equipment, and strengthening of the RAAZ and technical training institutes. Both UNEP and UNIDO are involved in the implementation of Zambia's HPMP and KIP, which helps prevent the duplication of efforts. Annex II summarizes the simultaneous implementation of activities under both Plans.

VI. Recommendation

42. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the Kigali HFC implementation plan (KIP) for Zambia for the period 2026–2029 to reduce HFC consumption by 10 per cent of the country's baseline, in the amount of US \$367,250, consisting of US \$180,000, plus agency support costs of US \$23,400, for UNEP and US \$145,000, plus agency support costs of US \$18,850, for UNIDO;
- (b) Noting:
 - (i) 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);
 - (ii) That the Government of Zambia would continue to monitor its HFC consumption to understand the extent to which reported consumption in baseline years was

representative of the local market's needs and to assess what future HFC demand would be, and would provide that analysis when submitting the second tranche of its KIP;

- (iii) That, on the basis of the information provided in subparagraph (b)(ii) above, the maximum allowable consumption limits for the remaining years of stage I of the KIP, as contained in Appendix 2-A to the Agreement between the Government of Zambia and the Executive Committee, would be revised when the Committee considered the second tranche of the KIP;
- (c) Approving:
 - (i) The draft Agreement between the Government of Zambia 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
 - (ii) The first tranche of stage I of the KIP for Zambia and the corresponding tranche implementation plan, in the amount of US \$218,514, consisting of US \$103,375, plus agency support costs of US \$13,439, for UNEP and US \$90,000, plus agency support costs of US \$11,700, for UNIDO.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF ZAMBIA 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 Zambia (“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 629,562 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	699,513	699,513	699,513	629,562	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	699,513	699,513	699,513	629,562	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)		103,375	0	76,625	0	180,000
2.2	Support costs for Lead IA (US \$)		13,439	0	9,961	0	23,400
2.3	Cooperating IA (UNIDO) agreed funding (US \$)		90,000	0	55,000	0	145,000
2.4	Support costs for Cooperating IA (US \$)		11,700	0	7,150	0	18,850
3.1	Total agreed funding (US \$)		193,375	0	131,625	0	325,000
3.2	Total support costs (US \$)		25,139	0	17,111	0	42,250
3.3	Total agreed costs (US \$)		218,514	0	148,736	0	367,250

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 within the Zambia Environmental Management Agency (ZEMA) is responsible for monitoring the progress of implementation of activities in the Plan. The monitoring will be conducted to ensure efficient and effective implementation of activities planned under all tranches, overall project coordination, stakeholder engagement, delivery of training and other expected outcomes, and facilitation of HFC consumption verification undertaken by the Lead IA. ZEMA 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 ZAMBIA

HPMP – Stage II	Cost (US\$)	KIP – Stage I	Cost (US\$)	Combined cost (US\$)
Activity		Activity		
<i>Strengthening the enforcement of ODS regulations:</i> Development of an online ODS database to assist in the tracking of HCFC quota allocations, mandatory reports from ODS importers, and registration of certified servicing technicians; reinforcement of customs training schools through capacity-building for 20 customs trainers and provision of training materials; organization of 5 training workshops on Montreal Protocol matters, national legal framework on ODSs and prevention of illegal HCFC trade for 150 customs and enforcement officers; dissemination of printed information on the regulations and alternative technologies among customs and enforcement officers, importers and end users; and procurement of 5 portable ODS identifiers	121,000	<i>Strengthening the regulatory framework and control mechanisms:</i> Organization of awareness-raising campaigns on relevant regulations for importers and other stakeholders; strengthening of the HFC licensing and quota system; training of 175 customs and enforcement officers on the identification of refrigerants and equipment, including new energy-efficient technologies in the RAC sector, the use of refrigerant identifiers, procedures for verifying import permits, and detecting misclassification or illegal trade (5 workshops); strengthening of record-keeping practices by the customs and reporting by enterprises; updating and revision of the customs training programme to incorporate new HS codes for HFCs and low-GWP alternatives; and improved market monitoring	70,000	191,000
<i>Development and implementation of technical standards and sustainable public procurement for RAC systems:</i> Development of technical standards to minimize the risks of using low-GWP technologies for RAC equipment; printing and dissemination of new RAC standards and organization of 5 training workshops for 100 environmental inspectors and other stakeholders; annual monitoring inspections of imported equipment and refrigerants; development of policies for sustainable procurement of RAC systems; and organization of 2 outreach sessions for 20 public procurement officers and 3 sensitization workshops for 90 importers and end users to promote procurement of low-GWP technologies and new standards	120,000		-	120,000
<i>Strengthening the certification scheme for RAC technicians:</i> Revision of the certification scheme for RAC servicing technicians; upgrades to the national codes of conduct and training curriculum for servicing technicians; organization of a stakeholder workshop to finalize the norms, rules, processes, and codes of conduct for the revised certification scheme; organization of 2 training workshops on the revised certification system for 40 trainers and evaluators; training	125,000	<i>Capacity building of RAC technicians:</i> Updates to the code of practice and training curriculum for RAC technicians; training of 250 technicians on sound servicing of RAC technologies and safe handling of low-GWP refrigerants (10 sessions); and organization of awareness-raising campaigns for end users on the benefits of low-GWP, energy-efficient technologies	77,500	277,500

HPMP – Stage II	Cost (US\$)	KIP – Stage I	Cost (US\$)	Combined cost (US\$)
Activity		Activity		
and certification of 600 refrigeration technicians on best practices in the handling of flammable/toxic refrigerants and preventing refrigerant leakage; promotion of hiring of certified technicians through mass media and meetings with end users from <i>inter alia</i> hotels, restaurants, and supermarkets; and technical support provided to the Refrigeration and Air-conditioning Association to monitor the application of revised codes of conduct		Capacity building of RAC/MAC technicians and strengthening of MAC workshops: Provision of tools and equipment to 2 training centres for cooling systems based on CO ₂ and NH ₃ ; and provision of tools and equipment to 20 MAC workshops and training of MAC technicians on HFO-1234yf and HFC-134a	75,000	
Strengthening of the 3 existing centres of excellence and creation of 2 new centres: Delivery of 2 sets of equipment for good practices to the new centres, and 5 sets of equipment and tools for the handling of HCs to all centres; knowledge update for 5 engineers or trainers on the latest RAC sector developments; establishment of a refrigerant recovery and reuse scheme, including development of a business model for the operation of a reclaim centre and procurement of equipment for 1 such centre; and organization of trials and comparisons of the coefficient of performance for alternative technologies and sharing results with end users	169,000			169,000
Additional activities to maintain energy efficiency in the servicing sector (decision 89/6): Support for inter-institutional collaboration for policy enhancement and the introduction of MEPS, including development of analyses, reports, and information notes; organization of a study tour to China to learn about labelling systems and of coordination meetings and workshops; development of awareness and outreach programmes, including printed infographics and other materials; and organization of workshops and awareness campaigns	100,000	Facilitating the introduction of low-GWP RAC technologies: Raising awareness on low-GWP technologies among commercial refrigeration stakeholders and identification of beneficiaries; pilot project to demonstrate the improved refrigeration practices and new technologies by converting a commercial refrigeration system from R-404A to CO ₂ at a supermarket; monitoring of and reporting on the new and old commercial refrigeration systems; and organization of awareness-raising campaigns for end users and enterprises	70,000	170,000
Project implementation and monitoring: Staff support, monitoring-related travel, meetings and miscellaneous expenses	50,000	Project coordination and management: Hiring of local consultants, travel, meeting, and preparation of quarterly progress reports	32,500	82,500
Total	685,000		325,000	1,010,000
Percentage of total (%)	67.8		32.2	100