UNITED
NATIONS

EP

United Nations
Environment
Programme

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/86/81
19 October 2020

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-sixth Meeting
Montreal, 2-6 November 2020
Postponed to 8-12 March 2021[1]

PROJECT PROPOSAL: ZAMBIA

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

<u>Phase-out</u>

- HCFC phase-out management plan (stage II, first tranche) UNEP and UNIDO

[1] Due to coronavirus disease (COVID-19)

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Zambia

(I) PROJECT TITLE	**AGENCY**
HCFC phase-out plan (stage II)	UNEP (lead), UNIDO

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2019	2.20 (ODP tonnes)

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)									**Year:** 2019
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					2.20				2.20

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	5.00	Starting point for sustained aggregate reductions:	5.00
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	1.75	Remaining:	3.25

(V) BUSINESS PLAN		**2020**	**2021**	**2022**	**Total**
UNEP	ODS phase-out (ODP tonnes)	0.20	0.00	0.00	0.20
	Funding (US $)	58,500	0	0	58,500
UNIDO	ODS phase-out (ODP tonnes)	0.70	0.00	1.00	1.70
	Funding (US $)	63,765	0	95,648	159,413

(VI) PROJECT DATA			**2020**	**2021-2023**	**2024**	**2025-2026**	**2027**	**2028-2029**	**2030**	**Total**
Montreal Protocol consumption limits			3.25	3.25	3.25	1.63	1.63	1.63	0.00	n/a
Maximum allowable consumption (ODP tonnes)			3.25	2.50	2.50	1.63	1.63	1.63	0.00	n/a
Projects costs requested in principle (US $)	UNEP	Project costs	100,000	0	120,000	0	116,000	0	60,000	396,000
		Support costs	13,000	0	15,600	0	15,080	0	7,800	51,480
	UNIDO	Project costs	50,000	0	139,000	0	0	0	0	189,000
		Support costs	4,500	0	12,510	0	0	0	0	17,010
Total project costs requested in principle (US $)			150,000	0	259,000	0	116,000	0	60,000	585,000
Total support costs requested in principle (US $)			17,500	0	28,110	0	15,080	0	7,800	68,490
Total funds requested in principle (US $)			167,500	0	287,110	0	131,080	0	67,800	653,490

(VII) Request for approval of funding for the first tranche (2020)		
Agency	**Funds requested (US $)**	**Support costs (US $)**
UNEP	100,000	13,000
UNIDO	50,000	4,500
Total	150,000	17,500

Secretariat's recommendation:	Individual consideration

PROJECT DESCRIPTION

Background

1. On behalf of the Government of Zambia, UNEP as the lead implementing agency has submitted a request for stage II of the HCFC phase-out management plan (HPMP), at a total cost of US $653,490, consisting of US $396,000, plus agency support costs of US $51,480 for UNEP, and US $189,000, plus agency support costs of US $17,010 for UNIDO, as originally submitted.[2] The implementation of stage II of the HPMP will phase out the remaining consumption of HCFCs by 2030.

2. The first tranche of stage II of the HPMP being requested at this meeting amounts to US $390,140, consisting of US $216,000, plus agency support costs of US $28,080 for UNEP, and US $134,000, plus agency support costs of US $12,060 for UNIDO, as originally submitted.

Status of implementation of stage I of the HPMP

3. Stage I of the HPMP for Zambia was approved at the 64th meeting[3] to meet the 35 per cent reduction from the baseline by 2020, at a total cost of US $315,000, plus agency support costs to phase out 1.75 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) servicing sector. The fifth and final tranche of stage I of the HPMP was approved under the intersessional approval process for the 85th meeting in May 2020; stage I will be completed by 31 December 2021.

<u>HCFC consumption</u>

4. The Government of Zambia reported a consumption of 2.20 ODP tonnes of HCFC in 2019, which is 56 per cent below the HCFC baseline for compliance. The 2015-2019 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Zambia (2015-2019 Article 7 data)

HCFC-22	2015	2016	2017	2018	2019	Baseline
Metric tonnes (mt)	55.09	50.00	45.09	40.00	40.00	90.91
ODP tonnes	3.03	2.75	2.48	2.20	2.20	5.00

5. The gradual decrease in consumption of HCFC-22 since 2015 is due to the strict enforcement of the licensing and quota system, implementation of the training programmes in the refrigeration servicing sector and awareness raising activities under the HPMP, and the introduction of RAC equipment based mainly on HFCs (e.g., air-conditioners using R-410A, commercial refrigeration equipment using HFC-134a, R-404A), as well as ammonia and R-600a.

Country programme (CP) implementation report

6. The Government of Zambia reported HCFC sector consumption data under the 2019 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

<u>Status of progress and disbursement</u>

Legal framework

7. Zambia's ODS regulation establishes the controls for ODS-based equipment imports and the HCFC licensing and quota system requirements, including the labelling of HCFC containers. The registration of ODS importers and the certification and registration of refrigeration servicing technicians have been

[2] As per the letter of 15 July 2020 from the Zambia Environmental Management Agency (ZEMA) to the Secretariat.
[3] UNEP/OzL.Pro/ExCom/64/48.

mandatory since January 2015. Furthermore, the banning of imports of HCFC-based equipment is being gazetted and is expected to be in force as of 1 January 2025.

8. The licensing and quota system includes ODS that have already been phased out, for which no licenses and quotas are provided. There were no cases of illegal imports of those phased-out substances, and the national ozone unit (NOU) was not aware of their use in the market, nor of the existence of any stockpiles.

9. In response to the verification report recommendations,[4] ZEMA has been connected to the Automated System for Customs Data (ASYCUDA) to monitor all ODS imported into the country, and holds regular meetings with the Customs Division to check data and information on ODS and conduct joint random inspection visits to border points.

10. Nine training sessions have so far been conducted for a total of 400 customs and law enforcement officers on the enforcement of ODS import controls, policy, and regulations, preventing illegal ODS imports, and safe handling of refrigerant cylinders during customs inspections, including the use of refrigerant (including those blended) identifiers.

Refrigeration servicing sector

11. The following activities were undertaken:

(a) Update ten trainers from RAC training institutes on sound principles of refrigeration; and training of 450 refrigeration technicians in good servicing practices for HCFC-based equipment, standard procedures for safely installing and servicing equipment with flammable refrigerants, potential energy savings through proper servicing, and maintaining equipment in proper condition;

(b) Procurement and distribution of centre equipment and servicing tools[5] to three centres of excellence,[6] to train technicians in good service practices on an ongoing basis. Technicians are trained in the proper use and maintenance of the tools and can borrow the tools from these centres; and

(c) Awareness and outreach activities including mass-media interviews, press releases in newspapers, stakeholder meetings, and informative brochures.

<u>Level of fund disbursement</u>

12. As of July 2020, of the total funds of US $315,000 approved (US $175,000 for UNEP and US $140,000 for UNIDO), US $270,000 had been disbursed (US $130,000 for UNEP and US $140,000 for UNIDO). The balance of US $45,000 (including US $30,000 approved for the fifth and final tranche) will be disbursed by December 2021.

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[4] Further strengthening the cooperation between the NOU, Customs department and other enforcement officials to reconcile import data and to combat illegal ODS imports; issuing import licenses on the condition that the importers have submitted reports on its previous ODS imports; and conducting more inspections by the NOU at the point of entry to ensure identification of ODS (paragraph 5 of document UNEP/OzL.Pro/ExCom/85/53).

[5] Includes recovery units, recycling units, blazing units, vacuum pumps, refrigerant identifiers, detectors, digital weighing units, and portable and stationary recovery cylinders.

[6] There is one centre of excellence per region (north, south, and central) to assist the RAC sector in servicing equipment with alternative technology.

Stage II of the HPMP

Remaining consumption eligible for funding

13. After deducting 1.75 ODP tonnes of HCFCs associated with stage I of the HPMP, the remaining consumption eligible for funding amounts to 3.25 ODP tonnes of HCFC-22.

Sector distribution of HCFCs

14. There are approximately 1,150 RAC technicians working in 330 workshops servicing unitary and split systems; commercial refrigeration equipment including cold stores; refrigerated transport; and air-conditioning and heat pumps, as shown in Table 2.

Table 2. Demand in 2019 for HCFC-22 in the RAC servicing sector in Zambia

Sector/Applications	Number of units	Average charge/unit (kg)	Leakage rate (%)	Consumption	
				mt	%
Residential air-conditioning (unitary and split)	104,389	1.3	11	14.9	37
Commercial refrigeration (medium condensing units)	9,223	10	19	17.5	43
Industrial refrigeration (medium to large condensing units, centralized systems)	1,351	12.5	27	4.6	11
Refrigerated transport	2,692	3	43	3.5	9
Total	**117,655**	**n/a**	**n/a**	**40.5**	**100**

15. HCFC-22 represents 34 per cent of the refrigerants used in the refrigeration servicing sector, followed by ammonia (15 per cent), HFC-134a (15 percent), R-410A (12.5 per cent), other HFC blends (17 per cent) and hydrocarbons (6.5 per cent). The main sectors consuming HCFC-22 are commercial refrigeration and residential air-conditioning.

Phase-out strategy in stage II of the HPMP

16. Stage II of the HPMP will build upon the experience gained during implementation of stage I; it will focus on monitoring and enforcement of the ODS regulatory framework, facilitating the transition to low-global-warming potential (GWP) technologies in the RAC sector, further strengthening the servicing sector's capacity and the general public's awareness regarding the HCFC phase-out process.

Proposed activities in stage II of the HPMP

17. Stage II proposes the following activities:

(a) *Strengthening the enforcement of ODS regulations*: Develop an online ODS database to assist in the tracking of HCFC quota allocations, mandatory reports from ODS importers, and the registration of certified servicing technicians; reinforce the capacity of the customs training schools through capacity-building for 20 customs trainers and the provision of training materials; conduct five training workshops on Montreal Protocol matters, the revised national legal framework on ODS and the prevention of illegal HCFC trade for 150 customs and other enforcement officers; disseminate printed information on the regulations and on HCFC alternative technologies among customs and enforcement officers, importers and end-users; and procure five portable ODS identifiers (UNEP) (US $101,000) and (UNIDO) (US $20,000);

(b) *Development and implementation of technical standards and sustainable public procurement for RAC systems*: Develop technical standards to minimize the risk of using low-GWP technology systems during the installation, operation, maintenance, and decommissioning of RAC equipment; organize one stakeholder consultation workshop for the finalization of the national RAC standards; print and disseminate the RAC standards; conduct five training workshops to build the capacity of 100 officers (environmental inspectors, NOU and the Zambia Bureau of Standards) on the RAC standards; conduct annual monitoring inspections of imported equipment and refrigerants to ensure compliance with the adopted standards; develop policies to prioritize the sustainable procurement of RAC systems according to the adopted standards; conduct two information outreach sessions for 20 public procurement officers (Ministry of Infrastructure and Development, National Procurement Agency, and relevant agencies dealing with building design) on the sustainable public procurement policy for RAC equipment; and conduct three sensitization workshops for a total of 90 main stakeholders (importers, industry representatives and end-users) to promote the advantages of procuring low-GWP technology and the national standards (UNEP) (US $120,000);

(c) *Strengthening the RAC technicians certification scheme*: Revise the 2015 technician certification scheme for the RAC servicing sector; upgrade national codes of conduct for RAC servicing technicians, and the national RAC training curriculum; organize a stakeholders' workshop to finalize norms, rules, and processes, and the codes of conduct for the revised certification; organize two training workshops to update the knowledge of 40 trainers and evaluators for the application of the revised certification system; train and certify 600 refrigeration technicians to ensure best practices in the handling of flammable/toxic refrigerants and in adopting preventive leakage of refrigerants; promote the hiring of certified technicians through mass media and meetings with groups of end-users (e.g., hotels, restaurants, supermarkets); and provide technical support to the Refrigeration and Air-conditioning Association of Zambia (RAAZ) to monitor the application of the codes of conduct (UNEP) (US $125,000); and

(d) *Strengthening the three existing centres of excellence and creating two new centres:* Deliver two sets of equipment for good practices (e.g., refrigerant recovery units, refrigerant identifiers, accessories, vacuum pumps and other service tools) for the new centres, and five specific sets of equipment and tools for the handling of hydrocarbons[7] to all centres; provide a knowledge update to five engineers (or trainers) from the centres on the latest technical and other developments in the RAC sector; establish a recovery and re-use scheme including the development of the business model for the operation of a reclaim centre and the procurement of equipment for one reclaim centre;[8] conduct trials and comparisons of the coefficient of performance (COP) for various alternative technologies and share results with the main end-users (UNIDO) (US $169,000).

Project implementation and monitoring

18. The system established under stage I of the HPMP will continue into stage II. The NOU, in coordination with UNEP, monitors activities, reports progress and works with stakeholders to phase out

[7] Portable charging station including precision scale for cans, electronic manifold gauge for multiple refrigerants, electronic leak detector, safety related tools and accessories, brazing units, compression fitting tools, personal protection items, and additional general tools like tubing tools.
[8] Reclaim unit for multiple non-flammable refrigerants, refrigerant identifier and laboratory items for simple quality check of reclaimed refrigerant; recovery units, cylinders of 100 lbs and 30 lbs, a storage tank for unintended mixtures, and scales.

HCFCs. The cost of those activities amounts to US $50,000 (i.e., staff support (US$ 20,000); monitoring related travel (US $8,000); meetings (US $20,000); and miscellaneous expenses (US $2,000)).

Gender policy implementation

19. In line with UNEP's gender mainstreaming policies and decision 84/92(d),[9] the Government of Zambia will encourage the full engagement of women in various activities to be implemented under stage II. The NOU will support the collection of sex-disaggregated data, engage stakeholders in considering gender issues, and seek their input to identify barriers, define specific indicators, and design effective responses, and target indicators will be established.

Total cost of stage II of the HPMP

20. The total cost of stage II of the HPMP for Zambia amounts to US $585,000, as originally submitted for achieving a 100 per cent reduction from its HCFC baseline consumption by 2030, which is in accordance with decision 74/50(c)(xii).

Activities planned for the first tranche of stage II

21. The first tranche of stage II of the HPMP at the total amount of US $350,000 will be implemented between January 2021 and December 2023 and will include the following activities:

(a) *Strengthening enforcement and monitoring of ODS regulations and related policies*: Training of 10 trainers by a national expert; and conducting a training workshop on Montreal Protocol matters, the revised national legal framework on ODS, and the prevention of illegal HCFC trade for 30 customs and enforcement officers (UNEP) (US $81,000);

(b) *Development and implementation of technical standards and sustainable public procurement for RAC systems*: Developing technical standards to minimize the risk of accidents during the installation, operation, maintenance, and decommissioning of RAC equipment based on low-GWP-based refrigerants; conducting one stakeholder consultation workshop to review the draft standards; printing and disseminating the revised standards; developing policies for sustainable public procurement of RAC equipment; training 20 public procurement officers on the criteria for acquiring RAC systems; organizing a sensitization workshop for 30 stakeholders (importers, industry representatives and end-users) to promote the advantages of procuring low-GWP refrigerant-based RAC equipment and of the national standards (UNEP) (US $70,000);

(c) *Enhancement of the RAC technicians' certification scheme*: Revising the RAC certification scheme, upgrading the national codes of conduct on servicing RAC systems, and upgrading the national RAC training curriculum; organizing a stakeholders' workshop to finalize the revised certification norms, rules, processes, and the codes of conduct (UNEP) (US $65,000);

(d) *Strengthening the centres of excellence and technical assistance:* Providing complementary support to three existing centres of excellence; capacity-building on servicing hydrocarbon-based air-conditioners; conducting trials and comparisons of the performance for various alternative technologies and sharing results with the main end-users (UNIDO) (US $114,000); and

[9] Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

(e) Monitoring and evaluation (UNEP) (US $20,000): Staff support (US $8,000); monitoring related travel (US $3,200); meetings (US $8,000); and miscellaneous (US $800).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

22. The Secretariat reviewed stage II of the HPMP in light of stage I, the policies and guidelines of the Multilateral Fund, including the criteria for funding HCFC phase-out in the consumption sector for stage II of HPMPs (decision 74/50), and the 2020-2022 business plan of the Multilateral Fund.

<u>Overarching strategy for stage II</u>

23. The Government of Zambia proposes to meet the 100 per cent reduction of its HCFC baseline consumption by 2030, on the understanding that Zambia's consumption between 2030 and 2040 (i.e., the servicing tail) would follow the Montreal Protocol provisions.[10] The Government further commits to ensuring that where consumption for the servicing tail may be required, it will do its utmost to establish strict criteria within its existing licensing system to limit and monitor the amounts used to those allowed by the Montreal Protocol.

Reduction targets for stage II

24. The Secretariat discussed with UNEP the targets for stage II for the period from 2021 to 2024, keeping in mind that the current consumption of 2.20 ODP tonnes is already 32 per cent lower than the Montreal Protocol target for 2020 of 3.25 ODP tonnes and that the quota established by the Government of Zambia for 2020 is already at 2.20 ODP tonnes. After consultation, the Government of Zambia agreed to revise its target for the period from 2021 to 2024 to 2.25 ODP tonnes instead of 3.25 ODP tonnes.

<u>Technical and cost-related issues</u>

25. Recognizing that HFC-134a and HFC blends represent more than 44 per cent of the total use of refrigerants in Zambia, the Secretariat asked about the main barriers to adopting zero-to-low-GWP alternatives to replace HCFC-22. UNEP explained that the main barriers are: the limited availability of equipment, mainly in air-conditioning and commercial refrigeration; higher up-front investment costs and the lack of end-user familiarity with the advantages of low-GWP technologies; and limited knowledge on the part of technicians in the handling of flammable and toxic refrigerants. Accordingly, stage II of the HPMP has prioritized the strengthening of national capacity through: training and certification of refrigeration servicing technicians in the handling of natural refrigerants, development and implementation of national safety and technical standards for flammable technologies, awareness raising, public procurement of RAC equipment, along with the strengthening of the RAAZ and technical training institutes.

26. On matters related to the recovery and reclamation project, UNEP explained that it is expected to reduce the amount of refrigerants vented into the atmosphere when equipment is being serviced; the refrigerants that will be recovered will be promoted among servicing technicians and end-users to reduce the import of new HCFCs. The Secretariat suggested that UNEP and UNIDO assist the Government in developing a comprehensive business model demonstrating its technical feasibility in terms of the amounts of HCFCs to be recovered and reused, and its financial viability when submitting the request for the

[10] Article 5, paragraph 8 ter (e)(i) of the Montreal Protocol. Other applications where HCFCs can be used include the servicing of fire suppression and fire protection equipment existing on 1 January 2030; solvent applications in rocket engine manufacturing; and topical medical aerosol applications for the specialized treatment of burns.

recovery and recycling programme under a future tranche. Other phase-out activities would be proposed in the event that the recovery and recycling scheme could not be implemented.

27. The Secretariat also discussed with UNEP the proposed tranche distribution for stage II noting the importance of ensuring a balanced distribution according to the needs of the country. Based on these consultations, a revised tranche distribution was agreed as shown in Table 3.

Table 3. Original and revised tranche distribution for stage II of the HPMP for Zambia

Funding (US $)	2020	2021-2023	2024	2025	2026	2027	2028-2029	2030
As submitted								
Lead IA (UNEP)	216,000	0	120,000	0	0	0	0	60,000
Cooperating IA (UNIDO)	134,000	0	55,000	0	0	0	0	0
Total	**350,000**	**0**	**175,000**	**0**	**0**	**0**	**0**	**60,000**
Revised								
Lead IA (UNEP)	100,000	0	120,000	0	0	116,000	0	60,000
Cooperating IA (UNIDO)	50,000	0	139,000	0	0	0	0	0
Total	**150,000**	**0**	**259,000**	**0**	**0**	**116,000**	**0**	**60,000**

<u>Activities planned for the first tranche</u>

28. The funding for the first tranche was revised as per Table 3 above. The funding for the different components was revised as follows: strengthening enforcement and monitoring of ODS regulations and related policies (US $15,000); development and implementation of technical standards and sustainable public procurement for RAC systems (US $50,000); enhancement of the RAC technicians’ certification scheme (US $30,000); strengthening the centres of excellence and technical assistance (US $50,000); and monitoring and evaluation (UNEP) (US $5,000).

<u>Impact of the COVID-19 pandemic on HPMP implementation</u>

29. The COVID-19 pandemic has partially affected the implementation of stage I of the HPMP, especially for the fifth tranche, due to the travel and meeting restrictions imposed by the Government. The NOU and implementing agencies continue to identify near-term priorities and approaches to implement stage II for capacity building, information exchange, and the implementation of training programmes despite the challenging situation. Most technicians will be assisted with service tools to continue with their operations; consultants will be recruited at the country level when required; and some in-person meetings among a few persons would be carried out, while larger group meetings would be organized virtually.

<u>Impact on the climate</u>

30. The proposed activities in the servicing sector, which include better containment of refrigerants through training and provision of equipment, will reduce the amount of HCFC-22 used for RAC servicing. Each kilogram of HCFC-22 not emitted due to better refrigeration practices results in savings of approximately 1.8 CO_2-equivalent tonnes. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Zambia, including its efforts to promote low-GWP alternative technologies, as well as refrigerant recovery and reuse, indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere, resulting in climate benefits.

Co-financing

31. The Government or Zambia will provide in-kind contribution, including office space, vehicles, support services from Government staff, and overall supervision of the implementation activities.

2020-2022 draft business plan of the Multilateral Fund

32. UNEP and UNIDO are requesting US $585,000, plus agency support costs, for the implementation of stage II of the HPMP for Zambia. The total requested value of US $167,500 including agency support costs for the period of 2020–2022, is US $50,413 below the amount in the business plan.

Draft Agreement

33. A draft Agreement between the Government of Zambia and the Executive Committee for the phase-out of HCFCs in stage II of the HPMP is contained in Annex I to the present document.

RECOMMENDATION

34. The Executive Committee may wish to consider:

(a) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for Zambia for the period from 2020 to 2030 for the complete phase-out of HCFC consumption, in the amount of US $653,490, consisting of US $396,000, plus agency support costs of US $51,480 for UNEP, and US $189,000, plus agency support costs of US $17,010 for UNIDO, on the understanding that no more funding would be provided from the Multilateral Fund for the phase-out of HCFCs;

(b) Noting the commitment of the Government of Zambia:

(i) To establish regulatory measures to ban the import of all types of HCFC-based refrigeration and air-conditioning equipment by 1 January 2025;

(ii) To reduce HCFC consumption by 50 per cent of the country's baseline by 1 January 2021, 67.5 per cent by 1 January 2025, and completely phase out HCFCs by 1 January 2030, and that HCFCs would not be imported after that date, except for the allowance for a servicing tail between 2030-2040 where required, and consistent with the provisions of the Montreal Protocol;

(c) Deducting 3.25 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;

(d) Approving the draft Agreement between the Government of Zambia and the Executive Committee for the reduction in consumption of HCFCs, in accordance with stage II of the HPMP, contained in Annex I to the present document; and

(e) Approving the first tranche of stage II of the HPMP for Zambia, and the corresponding tranche implementation plans, in the amount of US $167,500, consisting of US $100,000, plus agency support costs of US $13,000 for UNEP, and US $50,000, plus agency support costs of US $4,500 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 HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE II OF THE HCFC PHASE-OUT MANAGEMENT PLAN

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 the ozone-depleting substances (ODS) set out in Appendix 1-A ("The Substances") to a sustained level of zero ODP tonnes by 1 January 2030 in compliance with Montreal Protocol schedule.

2. The Country agrees to meet the annual consumption limits of the 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 all 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 the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in row 4.1.3 (remaining consumption eligible for funding).

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 the stage II of the HCFC phase-out management plan (HPMP) approved ("the Plan"). In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as 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 eight 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 the form of 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 the form of Appendix 4-A covering each calendar year until and including the year for which the funding 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 of the approved funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:

(a) Reallocations categorized as major changes must be documented in advance either in a Tranche Implementation Plan as foreseen in sub-paragraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted eight 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 which would modify any clause of this Agreement;

(iii) Changes in the annual levels of funding allocated to 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; and

(v) Changes in alternative technologies, on the understanding that any submission for such a request would identify the associated incremental costs, the potential impact to the climate, and any differences in ODP tonnes to be phased out if applicable, as well as confirm that the Country agrees that potential savings related to the change of technology would decrease the overall funding level under this Agreement accordingly;

(b) Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the subsequent Tranche Implementation Report;

(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.

Considerations for the refrigeration servicing sector

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sector included in the Plan, in particular:

(a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and

(b) The Country and relevant bilateral and/or implementing agencies would take into consideration relevant decisions on the refrigeration servicing sector during the implementation of the Plan.

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. United Nations Environment Programme (UNEP) has agreed to be the lead implementing agency (the “Lead IA”) and United Nations Industrial Development Organization (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 co-ordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per sub-paragraph 5(b). The Cooperating IA will support the Lead IA by implementing the Plan under the overall co-ordination 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 Agreement

11. Should the Country, for any reason, not meet the Targets for the elimination of the 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 of 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 ODP 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 sub-paragraph 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 sub-paragraphs 1(a), 1(b), 1(d), and 1(e) 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 of the 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

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	5.0

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2020	2021-2023	2024	2025-2026	2027	2028-2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	3.25	3.25	3.25	1.63	1.63	1.63	0.00	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	3.25	2.50	2.50	1.63	1.63	1.63	0.00	n/a
2.1	Lead IA (UNEP) agreed funding (US $)	100,000	0	120,000	0	116,000	0	60,000	396,000
2.2	Support costs for Lead IA (US $)	13,000	0	15,600	0	15,080	0	7,800	51,480
2.3	Cooperating IA (UNIDO) agreed funding (US $)	50,000	0	139,000	0	0	0	0	189,000
2.4	Support costs for Cooperating IA (US $)	4,500	0	12,510	0	0	0	0	17,010
3.1	Total agreed funding (US $)	150,000	0	259,000	0	116,000	0	60,000	585,000

Row	Particulars	2020	2021-2023	2024	2025-2026	2027	2028-2029	2030	Total
3.2	Total support costs (US $)	17,500	0	28,110	0	15,080	0	7,800	68,490
3.3	Total agreed costs (US $)	167,500	0	287,110	0	131,080	0	67,800	653,490
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								3.25
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)								1.75
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								0.00

*Date of completion of stage I as per stage I Agreement: 31 December 2021

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 TRANCHE IMPLEMENTATION REPORTS AND PLANS

1. The submission of the Tranche Implementation Report and Plans for each tranche request will consist of five 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-out of the Substances, how the different activities contribute to it, and how they relate to each other. The report should include the amount of ODS phased out as a direct result from the implementation of activities, by substance, and the alternative technology used and the related phase-in of alternatives, to allow the Secretariat to provide to the Executive Committee information about the resulting change in climate relevant emissions. The report should further highlight 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, uses of the flexibility for 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 of the Plan results and the consumption of the Substances, as per sub-paragraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;

(c) A written description of the activities to be undertaken during the period covered by the requested tranche, 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 also 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 sub-paragraph (b) above;

(d) A set of quantitative information for all Tranche Implementation Reports and Plans, submitted through an online database; and

(e) An Executive Summary of about five paragraphs, summarizing the information of the above sub-paragraphs 1(a) to 1(d).

2. In the event that in a particular year two stages of the HPMP are being implemented in parallel, the following considerations should be taken in preparing the Tranche Implementation Reports and Plans:

(a) The Tranche Implementation Reports and Plans referred to as part of this Agreement, will exclusively refer to activities and funds covered by this Agreement; and

(b) If the stages under implementation have different HCFC consumption targets under Appendix 2-A of each Agreement in a particular year, the lower HCFC consumption target will be used as reference for compliance with these Agreements and will be the basis for the independent verification.

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The national ozone unit will submit annual progress reports of status of implementation of the HPMP to the Lead IA.

2. Monitoring of progress of the HPMP and verification of the achievement of the performance targets, specified in the Plan, will be assigned to an independent local company or to independent local consultants by the Lead IA.

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 HPMP;

(b) Assisting the Country in 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 is reflected in updates of the overall plan and in future Tranche Implementation Plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;

(e) Fulfilling the reporting requirements for the Tranche Implementation Reports and Plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee, and should include 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 HCFC consumption targets had been met;

(g) Ensuring that appropriate independent technical experts carry out the technical reviews;

(h) Carrying out required supervision missions;

(i) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;

(j) Co-ordinating the activities of the Cooperating IA, and ensuring 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 policy, management and technical support when required;

(n) Reaching consensus with the Cooperating IA on any planning, co-ordination 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 HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 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 refer to the Lead IA to ensure a co-ordinated sequence in the 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, co-ordination and reporting arrangements required to facilitate the implementation of the Plan.

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US $180 per ODP kg 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.

2. In the event that the penalty needs to be applied for a year in which there are two Agreements in force (two stages of the HPMP being implemented in parallel) with different penalty levels, the application of the penalty will be determined on a case-by-case basis taking into consideration the specific sectors that lead to the non-compliance. If it is not possible to determine a sector, or both stages are addressing the same sector, the penalty level to be applied would be the largest.