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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-first Meeting
Montreal, 18-22 June 2018

PROJECT PROPOSAL: ZAMBIA

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

Phase-out

- HCFC phase-out management plan (stage I, fourth tranche) UNEP and UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Zambia

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UNEP (lead), UNIDO	64 th	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2016	2.75 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2017	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Serviceing				
HCFC-22					2.48				2.48

(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		2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.2	0.0	0.2	0.4
	Funding (US \$)	33,900	0	33,900	67,800

(VI) PROJECT DATA			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			n/a	n/a	5.0	5.0	4.5	4.5	4.5	4.5	4.5	3.3	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	5.0	5.0	4.5	4.5	4.5	4.5	4.5	3.3	n/a
Agreed funding (US\$)	UNEP	Project costs	40,000	0	40,000	0	0	35,000	0	30,000	0	30,000	175,000
		Support costs	5,200	0	5,200	0	0	4,550	0	3,900	0	3,900	22,750
	UNIDO	Project costs	70,000	0	0	0	0	70,000	0	0	0	0	140,000
		Support costs	6,300	0	0	0	0	6,300	0	0	0	0	12,600
Funds approved by ExCom (US\$)	Project costs	110,000	0	40,000	0	0	105,000	0	0	0	0	0	255,000
	Support costs	11,500	0	5,200	0	0	10,850	0	0	0	0	0	27,550
Total funds requested for approval at this meeting (US\$)	Project costs									30,000			30,000
	Support costs									3,900			3,900

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Zambia, UNEP as the lead implementing agency, has submitted a request for funding for the fourth tranche of stage I of the HCFC phase-out management plan (HPMP), at the amount of US \$30,000, plus agency support costs of US \$3,900 for UNEP only.¹ The submission includes a progress report on the implementation of the third tranche and the tranche implementation plan for 2018 to 2020.

Report on HCFC consumption

2. The Government of Zambia reported a consumption of 2.75 ODP tonnes of HCFC in 2016 and estimated a consumption of 2.48 ODP tonnes for 2017, which is 50 per cent below HCFC baseline for compliance. The 2013-2017 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Zambia (2013-2017 Article 7 data)

HCFC-22	2013	2014	2015	2016	2017*	Baseline
Metric tonnes	90.70	80.00	55.00	50.00	45.00	90.90
ODP tonnes	4.99	4.40	3.03	2.75	2.48	5.00

*Country programme data submitted on 3 May 2018.

3. The decrease in consumption is due to the release of stockpiles of HCFC-22 imported prior to 2013, strict enforcement of licensing and quota system, awareness of importers and suppliers on phase-out, training on good service practices relating to HCFCs and inflow of refrigeration and air-conditioning (RAC) equipment using HFCs and hydrocarbons (HCs).

Country programme (CP) implementation report

4. The Government of Zambia reported HCFC sector consumption data under the 2016 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

Progress report on the implementation of the third tranche of the HPMP

Legal framework

5. Zambia's ODS regulations gazetted in Statutory Instrument No. 27 of 2001 were revised in 2011 to incorporate further control measures on the phase-out of ODS including HCFC. The regulations control imports and exports of ODS and ODS-based equipment, and provide for quota and licensing systems.

6. The Zambia Environment Management Agency (ZEMA) is mandated to license the importation, distribution and disposal of ODS. All ODS-based equipment is monitored and controlled by ZEMA in collaboration with Customs Division at the entry points. The restriction or banning of HCFC-based equipment is incorporated in the Environmental Management Licensing Regulations of 2013. The Government is planning to implement a ban on import and sale of HCFC-based equipment from 2020.

7. The amended ODS regulations provide for the registration and certification of all stakeholders involved with ODS including refrigeration technicians and importers; mandatory certification of technicians has been implemented since January 2015. The Government further adopted Environmental Impact Assessment guidelines which also identify and safeguard against projects that might use ODS.

¹As per the letter of 6 March 2018 from the Zambia Environment Management Agency to the Secretariat.

Refrigeration servicing sector

8. The following activities were implemented:
- (a) Training of 45 customs and law enforcement officers in three workshops on enforcement of ODS policy and regulations, process for identifying illegal consignments and trade of HCFCs, safe handling of refrigerant cylinders during customs inspections, and the use of refrigerant identifiers;
 - (b) Training of 60 RAC technicians on good service practices, safe use of HC as a refrigerant, proper servicing and maintenance of equipment to reduce leakage of refrigerants and maintain the energy efficiency of equipment resulting in reduction on electricity consumption, and European safety standards and codes for handling and use of flammable refrigerants;
 - (c) Certification of 140 refrigeration technicians including those who completed an intensive refrigeration training programme on good refrigeration practices by the Northern Technical College in collaboration with ZEMA during the third tranche; and
 - (d) Delivery of two sets of equipment including refrigerant recovery units, refrigerant identifiers, accessories, vacuum pumps and other service tools to two regional centres of excellence so that these centres can train technicians on good service practices on an ongoing basis.

Project implementation and monitoring unit (PMU)

9. The National Ozone Unit (NOU) under the ZEMA co-ordinates, supervises monitors and evaluates the implementation of all activities in the HPMP. Two consultants were hired for monitoring implementation of HPMP activities and collecting accurate data.

Level of fund disbursement

10. As of April 2018, of the total US \$255,000 approved so far, US \$115,000 for UNEP and US \$140,000 for UNIDO, had been disbursed as shown in Table 2.

Table 2. Financial report of stage I of the HPMP for Zambia (US \$)

Agency	First tranche		Second tranche		Third tranche		Total approved	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNEP	40,000	40,000	40,000	40,000	35,000	35,000	115,000	115,000
UNIDO	70,000	70,000	0	0	70,000	70,000	140,000	140,000
Total	110,000	110,000	40,000	40,000	105,000	105,000	255,000	255,000
Disbursement rate (%)	100		100		100		100	

Implementation plan for the fourth tranche of the HPMP

11. The following activities will be implemented between July 2018 and December 2020:
- (a) Training of additional 30 customs officers in two workshops to reinforce their capacity to monitor import-export of HCFCs; provision of one multi-refrigerant identifier (HCFCs and HFCs) to customs training school (US \$12,000);
 - (b) Training of additional 40 refrigeration technicians in two workshops on good practices and safety in the handling of refrigerants; one workshop on emerging new technologies in RAC

sector mainly covering issues related to flammability and toxicity and handling of high-pressure refrigerant; awareness and outreach activities on safe use of equipment using flammable refrigerants (US \$15,000); and

- (c) Project management and monitoring (US \$3,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Progress report on the implementation of the third tranche of the HPMP

Legal framework

12. The Government of Zambia has established an import quota for 2018 of 2.75 ODP tonnes, which is 39 per cent lower than the Montreal Protocol target.

Refrigeration servicing sector

13. Upon a request for clarification on matters related to flammable refrigerants, UNEP mentioned that the Government does not encourage retrofit of equipment with HC as a refrigerant and is aware of the decisions of the Executive Committee on retrofits;² the NOU is continuing to conduct awareness workshops and training activities for safe handling of HC-based refrigerants; training programmes cover good refrigeration servicing practices including safe handling of refrigerants. Zambia currently uses safety standards based on European standards for handling flammable refrigerants. Through continued training, mandatory certification of technicians since January 2015, awareness programmes, the Government proposes to adopt steps for smooth and safe transition from HCFCs to HCFC-free low-global warming potential (GWP) flammable technologies.

14. UNEP clarified that the activities being implemented under the HPMP has strengthened the centres of excellence by providing tool kits and equipment which has increased the quality of the training programme and ensure its long-term sustainability; the refrigeration association and training centres are actively involved in continuous training of service technicians; 140 certified technicians have undergone training on ozone-friendly technologies in these centres. Training curricula in vocational institutes include modules on good service practices and safe use of flammable and toxic refrigerants. Most of the technicians have registered with the association after seeing the benefits of technical support from other technicians and trainers and their close working relationship with NOU.

Conclusion

15. Zambia's HCFC consumption in 2017 of 2.48 ODP tonnes was 45 per cent below the allowable level for that year. The Government of Zambia achieved additional progress in HPMP activities, including the training of customs and law enforcement officers and technicians with emphasis on servicing equipment using flammable refrigerants. The Government is also implementing a certification programme for training technicians, which includes safe handling of flammable and toxic refrigerants and leakage control and proper maintenance of equipment. All funds approved so far had been disbursed. The proposed plan for the next two years builds on the progress achieved in capacity building and enforcement of HCFC controls and is expected to contribute to sustainable reduction of HCFC consumption besides adoption of low-GWP alternatives, wherever feasible.

² Decisions 72/17 and 73/34

RECOMMENDATION

16. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the third tranche of stage I of the HCFC phase-out management plan of (HPMP) for Zambia; and further recommends blanket approval of the fourth tranche of stage I of the HPMP for Zambia and the corresponding 2018-2020 tranche implementation plan, at the funding level shown in the table below, on the understanding that if Zambia were to decide to proceed with retrofits and associated servicing to flammable and toxic refrigerants in refrigeration and air-conditioning equipment originally designed for non-flammable substances, it would do so assuming all associated responsibilities and risks and only in accordance with the relevant standards and protocols:

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage I, fourth tranche)	30,000	3,900	UNEP