



**United Nations  
Environment  
Programme**

Distr.  
GENERAL

UNEP/OzL.Pro/ExCom/71/53  
2 November 2013

ORIGINAL: ENGLISH



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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Seventy-first Meeting  
Montreal, 2-6 December 2013

**PROJECT PROPOSAL: ZAMBIA**

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

Phase-out

- HCFC phase-out management plan (stage I, second tranche)

UNEP/UNIDO

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## Zambia

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HCFC phase-out management plan (stage I)	UNEP (lead), UNIDO

<b>(II) LATEST ARTICLE 7 DATA</b>	Year: 2012	8.80 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2012</b>	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123									
HCFC-124									
HCFC-141b									
HCFC-142b									
HCFC-22					8.80				8.80

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

<b>(V) BUSINESS PLAN</b>		2013	2014	2015	2016	2017	2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.22	0.00	0.00	0.19	0.00	0.16	0.00	0.16	0.73
	Funding (US \$)	45,200	0	0	39,550	0	33,900	0	33,900	152,550
UNIDO	ODS phase-out (ODP tonnes)	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00
	Funding (US \$)	0	0	0	76,300	0	0	0	0	76,300

<b>(VI) PROJECT DATA</b>			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			n/a	n/a	5.00	5.00	4.50	4.50	4.50	4.50	4.50	3.25	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	5.00	5.00	4.50	4.50	4.50	4.50	4.50	3.25	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	0	0	0	0	0	0	0	0	110,000
		Support Costs	11,500	0	0	0	0	0	0	0	0	0	11,500
Total funds requested for approval at this meeting (US\$)		Project Costs	0	0	40,000	0	0	0	0	0	0	0	40,000
		Support Costs	0	0	5,200	0	0	0	0	0	0	0	5,200

<b>Secretariat's recommendation:</b>	Blanket approval
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## **PROJECT DESCRIPTION**

1. On behalf of the Government of Zambia UNEP, as the lead implementing agency, has submitted to the 71st meeting a request for funding for the second tranche of stage I of the HCFC phase-out management plan (HPMP)<sup>1</sup> at the amount of US \$40,000, plus agency support costs of US \$5,200 for UNEP only. The submission includes a progress report on the implementation of the first tranche of the HPMP together with the tranche implementation plan for 2013 to 2016.

### Progress report on the implementation of the first tranche of the HPMP

2. The implementation of the first tranche of the HPMP for Zambia progressed well. The following activities were implemented: a total of 45 customs officers on monitoring ODS imports were trained and 10 ODS identification kits were provided; a total of 80 refrigeration technicians on good service practices including the use and safe handling of hydrocarbon-based refrigerants (mainly R-290 and R-600a) were also trained; tool kits including recovery machines and cylinders, flush cleaning machines and vacuum pumps to training centres were distributed. In addition, the guidelines and codes of practice for refrigeration technicians have been developed by the Refrigeration and Air Conditioning Association of Zambia (RAAZ) and additional equipment for strengthening regional retrofitting centers (established through the terminal phase-out management plan (TPMP)) was procured. The project management and monitoring is undertaken by the National Ozone Unit (NOU) and is on-going.

3. As of September 2013, of the US \$110,000 approved for the first tranche, US \$83,043 had been disbursed. The balance of US \$26,957 has been committed and will be disbursed in 2014.

### Annual plans for the second tranche of the HPMP

4. The following activities will be implemented during the second tranche of stage I of the HPMP:
- (a) Training of an additional 45 customs and other law enforcement officers and strengthening customs training schools (US \$15,000);
  - (b) Strengthening of the RAAZ and refrigeration training institution, and additional training of 60 refrigeration technicians including procurement and distribution of servicing tools (US \$15,000); and
  - (c) Monitoring and evaluation of the activities of the HPMP (US \$10,000).

## **SECRETARIAT'S COMMENTS AND RECOMMENDATION**

### **COMMENTS**

#### Operational licensing system

5. In line with decision 63/17, confirmation has been received from the Government that an enforceable national system of licensing and quotas for HCFC imports and exports is in place and that the system is capable of ensuring compliance with the Montreal Protocol. The Government has established an import quota of 90.9 metric tonnes (mt) (5.0 ODP tonnes) for 2013.

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<sup>1</sup> The HPMP for Zambia was approved by the Executive Committee at its 64<sup>th</sup> meeting to reduce HCFC consumption by 35 per cent of the baseline by 1 January 2020.

HCFC consumption

6. The HCFC baseline for compliance has been established at 5.0 ODP tonnes (90.9 mt) (Table 1). When the HPMP was approved at the 64<sup>th</sup> meeting, the Government of Zambia agreed to establish as its starting point for sustained aggregate reductions the estimated baseline of 5.0 ODP tonnes (89.95 mt), calculated using the actual reported 2009 consumption of 0.7 ODP tonnes (12.0 mt) under Article 7 of the Montreal Protocol, and an estimated 2010 consumption of 9.2 ODP tonnes (167.9 mt).

7. Although the HPMP survey showed a much higher consumption for 2009 (8.56 ODP tonnes or 155.6 mt) as compared to the consumption reported under Article 7, the Government has opted not to revise the consumption level for 2009 and intends to comply with the established baseline of 5.0 ODP tonnes (90.9 mt) considering the licensing and quota system in place, the strong regulation support and on-going activities in the HPMP.

Table.1 Consumption of HCFC-22 in Zambia (Article 7)

<b>HCFC-22</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013*</b>	<b>Baseline</b>
Metric tonnes	12.5	12.0	12.0	167.9	167.82	160.00	90.91	90.9
ODP tonnes	0.7	0.7	0.7	9.2	9.23	8.80	5.00	5.0

(\*) Estimated for quota control

Technology issues

8. Noting that the objective of the training programme is to equip refrigeration technicians with knowledge and the necessary skills in retrofitting, use of hydrocarbon technologies and applying good refrigeration practices, the Secretariat requested additional information on the current use of hydrocarbon based refrigerants in the country and development of regulations, safety standards and codes. The Secretariat also suggested that UNEP advise relevant Government authorities and key stakeholders to give due consideration to addressing barriers for the introduction of alternative technologies and refrigerants during implementation of the HPMP. In responding, UNEP indicated that currently hydrocarbon based equipment accounts for less than 10 per cent of equipment base. However, it is expected that in the next few years the use of hydrocarbon refrigerants will increase as the awareness of HCFC-22 controls increases, and there is more encouragement by the Government in using ozone and climate friendly alternatives. UNEP also informed that the main aspects of the training programme were on safety issues and to build capacity of technicians to use hydrocarbon refrigerants safely. The Government is in the process of adopting international safety standards for flammable refrigerants as it sees fit. It will also put in place mechanisms including policy support and incentives to encourage the introduction and use of energy efficient and ozone friendly alternative technologies in the country.

Conclusion

9. The Fund Secretariat further noted that Zambia's import licensing and quota system is operational and will enable reductions in HCFC consumption in line with the Montreal Protocol's phase-out schedule. The activities in the servicing sector are progressing and have been developed with the participation of key stakeholders. The activities in the second tranche will continuously focus on capacity enhancement of servicing sector and HCFC import control. Additional equipment (refrigerant identifiers, basic service tools and refrigerant recovery units) will also be provided during the second tranche.

**RECOMMENDATION**

10. The Fund Secretariat recommends that the Executive Committee:

- (a) Takes note of the progress report on the implementation of the first tranche of stage I of the HCFC phase out management plan of (HPMP) in Zambia; and
- (b) Requests the Fund Secretariat, in the event that the baseline consumption for compliance for Zambia was amended based on the revised HCFC consumption data reported under Article 7 of the Montreal Protocol, to update Appendix 2-A to the Agreement to include the revised figures for maximum allowable consumption, and to notify the Executive Committee of the resulting change in the levels of maximum allowable consumption and of any potential related impact on the eligible funding level, with any adjustments needed being made when the next tranche was submitted.

11. The Fund Secretariat further recommends blanket approval of the second tranche of stage I of the HPMP for Zambia, and the corresponding 2013 – 2016 tranche implementation plan, with associated support costs at the funding level shown in the table below:

	<b>Project Title</b>	<b>Project Funding (US \$)</b>	<b>Support Cost (US \$)</b>	<b>Implementing Agency</b>
(a)	HCFC phase-out management plan (stage I, second tranche)	40,000	5,200	UNEP

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