



**United Nations  
Environment  
Programme**

Distr.  
GENERAL

UNEP/OzL.Pro/ExCom/77/66  
28 October 2016

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Seventy-seventh Meeting  
Montreal, 28 November - 2 December 2016

**PROJECT PROPOSAL: UGANDA**

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, second tranche) UNEP and UNIDO

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## Uganda

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UNEP (lead), UNIDO	68 <sup>th</sup>	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2015	0.0 (ODP tonne )

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2015	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123				0	0				0
HCFC-124				0	0				0
HCFC-141b				0	0				0
HCFC-142b				0	0				0
HCFC-22				0	0				0

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	0.2	Starting point for sustained aggregate reductions:	0.2
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	0.07	Remaining:	0.13

(V) BUSINESS PLAN		2016	2017	2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.0	0.0	0.0	0.0	0.0	0.0
	Funding (US \$)	26,555	0.0	0.0	0.0	23,165	49,720
UNIDO	ODS phase-out (ODP tonnes)	0.0	0.0	0.0	0.0	0.0	0.0
	Funding (US \$)	43,600	0	0	0	0	43,600

(VI) PROJECT DATA			2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			n/a	0.2	0.2	0.18	0.18	0.18	0.18	0.18	0.13	n/a
Maximum allowable consumption (ODP tonnes)			n/a	0.2	0.2	0.18	0.18	0.18	0.18	0.18	0.13	n/a
Agreed funding (US\$)	UNEP	Project costs	40,500	0	0	0	23,500	0	0	0	20,500	84,500
		Support costs	5,265	0	0	0	3,055	0	0	0	2,665	10,985
	UNIDO	Project costs	40,000	0	0	0	40,000	0	0	0	0	80,000
		Support costs	3,600	0	0	0	3,600	0	0	0	0	7,200
Funds approved by ExCom (US\$)	Project costs	80,500	0	0	0	0	0	0	0	0	0	80,500
	Support costs	8,865	0	0	0	0	0	0	0	0	0	8,865
Total funds requested for approval at this meeting (US\$)	Project costs					63,500						63,500
	Support costs					6,655						6,655

Secretariat's recommendation:	Blanket approval

## PROJECT DESCRIPTION

1. On behalf of the Government of Uganda, UNEP as the lead implementing agency, has submitted to the 77<sup>th</sup> meeting a request for funding for the second tranche of stage I of the HCFC phase-out management plan (HPMP)<sup>1</sup>, at a total cost of US \$70,155, consisting of US \$23,500, plus agency support costs of US \$3,055 for UNEP, and US \$40,000, plus agency support costs of US \$3,600 for UNIDO. The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption and the tranche implementation plan for 2017 to 2020.

### Report on HCFC consumption

#### *HCFC consumption*

2. The Government of Uganda has reported a consumption of 0 ODP tonne since 2013 as shown in Table 1.

**Table 1. HCFC consumption in Uganda (2011-2015 Article 7 data)**

HCFC-22	2011	2012	2013	2014	2015	Baseline
Metric tonnes	2.24	0.89	0.00	0.00	0.00	3.64
ODP tonnes	0.12	0.05	0.00	0.00	0.00	0.2

3. The amount of HCFC-22 that is recovered and recycled has been sufficient for servicing the existing HCFC-22-based equipment. In addition, HCFC-free alternatives (e.g. ammonia, isobutane) are increasingly being used in Uganda.

#### *Verification report*

4. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs for 2015 was zero ODP tonne. Uganda has an operational licensing system and quota system for HCFCs administered by the National Ozone Unit (NOU) under the National Environment Management Authority (NEMA), which has ensured the country's compliance with the Montreal Protocol. The NEMA is the lead agency for coordinating the implementation of Montreal Protocol activities.

#### *Country programme (CP) implementation report*

5. The Government of Uganda reported HCFC sector consumption data under the 2015 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

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

#### *Legal framework*

6. The National Environment Regulations cover the imports and exports of ozone depleting substances (ODS) and ODS-based equipment and provide for a licensing system for all ODS.

#### *Refrigeration servicing sector*

7. The following activities were undertaken:

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<sup>1</sup> As per the letter of 3 October 2016 from the National Environment Management Authority (NEMA) of Uganda to the Secretariat.

- (a) Revision of training curriculum of the Customs school to include modules on the ozone, and training of 5 newly recruited Customs officers;
- (b) Training of 12 Customs and law enforcement officers on compliance with and enforcement of ODS regulations, as well as techniques in preventing illegal trade;
- (c) Meeting on the Montreal Protocol and national ODS regulations with the Uganda Revenue Authority for enforcing import controls and licensing system;
- (d) Strengthening of six vocational centres, the Kyambogo University and Uganda National Association for Refrigeration and Air-conditioning (UNARA) through provision of service tools (e.g., refrigerant recovery machines, vacuum pumps, handheld electronic leak detectors, service manifolds and other tools) to upgrade the equipment of those centres, and procurement of one refrigerant identifier for the NOU;
- (e) Two-day training of trainers workshop on good servicing practices and retrofitting techniques to hydrocarbon (HC) technologies; and provision of toolkits (e.g., charging hoses, refrigerant release hose for HC, capillary tube cutter) for good service practices for 18 technicians; and
- (f) Meetings with UNARA to implement the code of conduct of technicians, to start the certification process of technicians, to develop a database of technicians, and to undertake a capacity assessment of the institution that will conduct technicians' training.

*Project implementation and monitoring unit (PMU)*

8. The NOU coordinates, supervises, monitors and evaluates implementation of all activities in the HPMP. A consultant was recruited to assist the NOU team in effectively monitoring the implementation of all the HPMP activities and collect accurate data.

Level of fund disbursement

9. As of September 2016, of the US \$80,500 so far approved (US \$40,500 for UNEP and US \$40,000 for UNIDO), US \$62,000 (77 per cent) had been disbursed (US \$22,000 for UNEP and US \$40,000 for UNIDO). The balance of US \$18,500 will be disbursed within 2017.

Implementation plan for the second tranche of the HPMP

10. The following activities will be implemented:

- (a) Conducting two workshops for training additional 30 customs and law enforcement officers ODS regulations and other relevant legislation to ensure effective enforcement (UNEP) (US \$8,000);
- (b) Conducting one workshop to assess and review the teaching curriculum in order integrate study materials relating to new refrigerants entering the local market, and training of additional 100 refrigeration technicians on good practices in RAC servicing (UNEP) (US \$10,500);
- (c) Purchase of one refrigerant reclaiming unit to be installed at the Kyambogo University and six sets of tools (including recovery units, leak detectors, vacuum pumps and gauges) for refrigeration training centres, and establishment of an incentive programme for HCFC consumption reduction for commercial and industrial refrigeration end-users (UNIDO) (US \$40,000); and

- (d) Continue the coordination, assessment, evaluation, and reporting of the implementation of all the HPMP activities (UNEP) (US \$5,000).

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

### **COMMENTS**

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

##### *Legal framework*

11. In line with decision 63/17, Uganda confirms that it has in place an enforceable system of licensing and quotas for HCFC imports and that this system is capable of ensuring the country's compliance with the HCFC phase-out schedule. The quota issued for 2016 is 0.1 ODP tonnes.

##### *Refrigeration servicing sector*

12. The Government of Uganda promotes use of natural refrigerants and other viable alternative technologies that have high energy efficiency with low-global warming potential (GWP). The Secretariat requested clarification on whether only low-GWP flammable refrigerants are used in the country. UNEP explained that HFC-based equipment and other low-GWP alternatives-based equipment are in use in the refrigeration and air-conditioning (RAC) sector in Uganda. There is an assembling plant for domestic and commercial refrigerators and freezers in the outskirts of Kampala City, which is completely dependent on R-600a.

13. Upon a request for clarification, UNEP explained that the Government does not promote retrofitting equipment using HC-based refrigerants and is aware of the decisions of the Executive Committee on retrofits<sup>2</sup>; training of technicians on safe handling of HC-based equipment is implemented with the objective of ensuring safe operations during installation, servicing and maintenance of HC-based equipment.

14. UNEP also clarified that the Government is still in the process of developing a standard certification system and guidelines for use of flammable refrigerants for both existing and new equipment. The process is expected to be completed during the implementation of the second tranche. Through a combination of training and information outreach, the Government is monitoring and controlling safe use of HCs in servicing RAC equipment.

15. Upon request for clarification on availability of HCFC-22 for servicing equipment, UNEP mentioned that almost all HCFC-22 charged in the equipment is recovered and recycled and enough stockpiles of HCFC-22 from previous years is available thus, servicing requirement can be handled in the country. Furthermore, reclamation of the HCFC-22 that can be recovered from the equipment would be promoted through training programmes. The country expects that, if needed, small quantities of HCFC-22 will be imported to sustain the servicing sector.

##### Conclusion

16. Uganda's HCFC consumption in 2015 was zero ODP tonne. The Government of Uganda achieved progress in the approved activities under the first tranche, including the training of technicians and distribution of equipment to strengthen the training infrastructure of the technical institutions. The

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<sup>2</sup> Decisions 72/17 and 73/34

Government has also a functioning licensing and quota system of HCFCs. The disbursement of funds amounts to 77 per cent of the approved funding for the first tranche. The verification report has confirmed Uganda's compliance with the Montreal Protocol targets and the functioning of a licensing and quota system for HCFCs in the country.

## RECOMMENDATION

17. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the first tranche of stage I of the HCFC phase-out management plan (HPMP) for Uganda; and further recommends blanket approval of the second tranche of stage I of the HPMP for Uganda, and the corresponding 2017-2020 tranche implementation plan, with associated support costs at the funding levels shown in the table below, on the understanding that if Uganda 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:

	<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)	23,500	3,055	UNEP
(b)	HCFC phase-out management plan (stage I, second tranche)	40,000	3,600	UNIDO