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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eighty-third Meeting  
Montreal, 27– 31 May 2019

**PROJECT PROPOSAL: ESWATINI**

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 UNDP

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

### Eswatini

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UNEP (lead), UNDP	63 <sup>rd</sup>	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2017	0.75 (ODP tonnes)

(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	Servicing				
HCFC-22					0.75				0.75

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	1.73	Starting point for sustained aggregate reductions:	7.3
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	6.19	Remaining:	1.11

(V) BUSINESS PLAN		2019	Total
UNEP	ODS phase-out (ODP tonnes)	0.21	0.21
	Funding (US \$)	33,900	33,900

(VI) PROJECT DATA		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	
Montreal Protocol consumption limits		n/a	n/a	1.73	1.73	1.58	1.58	1.58	1.58	1.58	1.13	n/a	
Maximum allowable consumption (ODP tonnes)		n/a	n/a	1.73	1.73	1.58	1.58	1.58	1.58	1.58	1.13	n/a	
Agreed funding (US\$)	UNEP	Project costs	667,948	0	0	0	0	0	0	0	0	667,948	
		Support costs	50,096	0	0	0	0	0	0	0	0	50,096	
	UNEP	Project costs	75,000	0	55,000	0	0	50,000	0	0	30,000	0	210,000
		Support costs	9,750	0	7,150	0	0	6,500	0	0	3,900	0	27,300
Funds approved by ExCom (US\$)	Project costs	742,948	0	55,000	0	0	50,000	0.0	0.0	0.0	0	847,948	
	Support costs	59,846	0	7,150	0	0	6,500	0.0	0.0	0.0	0	73,496	
Total funds requested for approval at this meeting (US\$)	Project costs									<b>30,000</b>		30,000	
	Support costs									<b>3,900</b>		3,900	

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

1. On behalf of the Government of Eswatini, UNEP as the lead implementing agency has submitted a request for funding for the fourth and final 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<sup>1</sup>. The submission includes a progress report on the implementation of the third tranche, a verification report on HCFC consumption for 2014 to 2018, and the tranche implementation plan for 2019 to 2020.

### Report on HCFC consumption

2. The Government of Eswatini reported a consumption of 0.47 ODP tonnes of HCFC-22 for 2018, which is 73 per cent below the HCFC baseline for compliance. The 2014-2018 HCFC consumption is shown in Table 1.

**Table 1. HCFC consumption in Eswatini (2014-2018 Article 7 data)**

HCFC	2014	2015	2016	2017	2018*	Baseline
<b>Metric tonnes</b>						
HCFC-22	26.70	18.54	21.20	13.60	8.50	31.36
HCFC-141b in imported pre-blended polyols**	2.36	0.00	0.00	0.00	0.00	50.90
Total (mt)	29.06	18.54	21.20	13.60	8.50	n/a
<b>ODP tonnes</b>						
HCFC-22	1.47	1.02	1.17	0.75	0.47	1.73
HCFC-141b in imported pre-blended polyols**	2.36	0.00	0.00	0.00	0.00	5.60
<b>Total (ODP tonnes)</b>	3.83	1.02	1.17	0.75	0.47	n/a

\*Data from the verification report on HCFC consumption.

\*\*Based on CP data only

3. HCFC consumption has been decreasing due to the implementation of the activities in the HPMP, particularly the enforcement of a licensing and quota system, the conversion of one foam enterprise from HCFC-141b contained in pre-blended polyols to cyclo-pentane and the awareness raising activities, that promoted the introduction of alternatives to HCFCs. Of all the refrigerants imported to the country, the share of hydrocarbon refrigerants (R-600a and R-290) has increased from 13 to 36 per cent in the period of 2014 to 2018. Other alternatives are HFC-based, mainly R-410A, R-404A, and HFC-134a.

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

4. The Government of Eswatini reported HCFC sector consumption data under the 2017 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol. The 2018 country programme data will be submitted in June 2019.

### *Verification report*

5. The verification report confirmed that the Government is implementing a licensing and quota system for imports and exports of HCFCs and HCFC-based equipment, and that the total consumption of HCFCs for 2018 was 0.47 ODP tonnes. The verification concluded that Eswatini is in compliance with the phase-out schedules under the Montreal Protocol and has met the 2014 to 2018 targets specified in the Agreement with the Executive Committee for HCFC phase-out.

<sup>1</sup> As per the letter of 18 March 2019 from the Eswatini Environment Authority to the Secretariat.

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

*Legal framework*

6. Eswatini promulgated its ODS Regulations in 2003, which *inter alia* control imports and exports of ODS and ODS-based equipment. The ODS Regulations were amended in 2013 to include HCFCs. The Regulations also provide for the registration of all stakeholders dealing with ODS, including refrigeration technicians, importers and end-users. The Government has announced a ban on the import and use of HCFC-141b, both pure and contained in pre-blended polyols, to sustain the phase-out of HCFC-141b when the conversion project in Palfridge was completed in 2015.

*Palfridge project*

7. The Palfridge project was approved at the 63<sup>rd</sup> meeting for conversion of their foam manufacturing operations in the production of domestic and commercial refrigeration equipment from HCFC-141b to cyclopentane. This project was completed in November 2015, which resulted in the phase-out of 5.6 ODP tonnes of HCFC-141b in imported pre-blended polyols. Consumption of HCFC-141b in imported pre-blended polyols was 2.36 ODP tonnes in 2014 and zero since 2015; no quotas for HCFC-141b have been issued for 2016 onwards.

*Refrigeration and air-conditioning (RAC) servicing sector*

8. The following activities were implemented:
- (a) Two meetings were held for Government officials, importers and border clearing officers to introduce the automated system for customs data (ASYCUDA) world system adopted by amended regulations; to allocate annual quotas; and to raise awareness on compliance with the control targets;
  - (b) Three training workshops for 70 customs officers and on-site training at three commercial borders: Ngwenya, Mananga and Mahamba on monitoring and enforcement of ODS policy and regulations were conducted. The monitoring of ODS imports/exports has been mainstreamed into the customs training course; and
  - (c) Two training workshops were conducted for 62 technicians in good servicing practices including the safe handling of flammable refrigerants; and servicing tools purchased in previous tranches (regulators, wrench sets, pliers, flaring and swaging sets, vacuum gauges, leak detectors, etc.) were distributed to trained technicians.

*Project implementation and monitoring unit (PMU)*

9. The National Ozone Unit (NOU) monitors the effectiveness of the projects to phase out HCFCs. One consultant was recruited to assist the NOU in monitoring the implementation of all the HPMP activities including data collection.

Level of fund disbursement

10. As of March 2019, of the US \$847,948 approved so far, US \$811,899 had been disbursed (US \$143,979 for UNEP and US \$667,920 for UNDP) as shown in Table 2. The balance of US \$10,200 from the third tranche will be disbursed before July 2019.

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

Tranche		UNEP	UNDP	Total	Disbursement rate (%)
First tranche	Approved	75,000	667,948	742,948	97
	Disbursed	49,179	667,920*	717,099	
Second tranche	Approved	55,000	0	55,000	100
	Disbursed	55,000	0	55,000	
Third tranche	Approved	50,000	0	50,000	80
	Disbursed	39,800	0	39,800	
Total	Approved	180,000	667,948	847,948	96
	Disbursed	143,979	667,920	811,899	

\* UNDP returned US \$28 to the 74<sup>th</sup> meeting.

#### Implementation plan for the fourth tranche of the HPMP

11. The following activities will be implemented between 2019 and 2020:
- Training of 55 customs and enforcement officers through three training workshops on the inspection of HCFCs, HCFC-based equipment and alternative refrigerants, targeting officers who have not received training (UNEP) (US \$15,000);
  - Training of 60 refrigeration and air-conditioning (RAC) technicians in good refrigeration servicing practices through three training workshops (UNEP) (US \$10,000); and
  - Monitoring, coordination and reporting of the activities conducted under the fourth tranche (UNEP) (US \$5,000).

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

#### **COMMENTS**

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

###### *Legal framework*

12. The Government of Eswatini has already issued HCFC import quotas for 2019 at 0.50 ODP tonnes, which is lower than the Montreal Protocol control targets.

13. There are a total of eight refrigerant identifiers being used in various entry points in the country. Due to limited funding resource, the priority was given to introducing the ASYCUDA system and training customs officers, the purchase of two refrigerant identifiers was delayed due to the slow procurement process. The country will follow up with this purchase in the next tranche.

###### *Technical issues*

14. UNDP explained that the increased use of hydrocarbon refrigerants in the country is mainly due to the manufacturing of R-290-based commercial refrigeration equipment by Pafridge. Technicians are not retrofitting RAC equipment using flammable refrigerants. In order to ensure safety in the servicing of equipment using hydrocarbons, training programmes for service technicians cover the safety aspects of handling flammable refrigerants. Safety measures for handling flammable refrigerants are also a part of customs training workshops, as customs officers need to test some of the imported consignments and confiscated substances. Furthermore, the Government is working towards the development and adoption of safety standards. So far, Eswatini has adopted the standard for designating compositions and assigning prefixes for refrigerants (SZNS ISO 817 of 2005), which will lay a foundation for further adoption of standards for flammable refrigerants.

15. The NOU plans to work closely with the relevant department to put in place a regulatory system to implement and enforce the certification of RAC technicians to ensure that technicians have adequate skills for servicing equipment with flammable refrigerants. In the fourth tranche, the NOU will work with the Ministry of Labour to include RAC as one of the trade sectors that require certification.

### Conclusion

16. The Government of Eswatini confirms that the licensing and quota system being enforced prevents imports of the ODS-based equipment and ODS that have already been phased out under the Montreal Protocol. The regular monitoring and inspections of importers and large equipment retailers also include previously phased-out ODS. Periodic inspections of the manufacturing enterprise (Palfridge) and the finished products have been conducted to ensure the sustainability of phase-out. The HCFC consumption of 0.47 ODP tonnes in 2018 is 73 per cent lower than the target of 1.56 ODP tonnes for that year. The customs officers were trained in ODS import control and handling flammable refrigerants. The Government has announced a ban on the import of HCFC-141b both in pure and in the imported pre-blended polyols to sustain the phase-out of HCFC-141b. The training of technicians and provision of tools have enabled them to exercise good practices in servicing RAC equipment, and the Government is working towards certification of technicians to achieve sustainability of technician training. The disbursement of funds approved under the third tranche has reached 80 per cent of the approved funding. Stage II of the HPMP is being prepared and will be submitted to the 84<sup>th</sup> meeting.

### **RECOMMENDATION**

17. The Fund Secretariat recommends that the Executive Committee:

- (a) Takes note of the progress report on the implementation of the third tranche of stage I of the HCFC phase-out management plan (HPMP) for Eswatini;
- (b) Requests the Government of Eswatini, UNEP and UNDP to submit a progress report on the implementation of the work programme associated with the final tranche to the first meeting in 2021 and the project completion report to the second meeting of the Executive Committee in 2022.

18. The Fund Secretariat further recommends blanket approval of the fourth and final tranche of stage I of the HPMP for Eswatini, and the corresponding 2019 to 2020 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)	30,000	3,900	UNEP