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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-fourth Meeting
Montreal, 27-31 May 2024
Items 9(c) and 9(d) of the provisional agenda[1]

PROJECT PROPOSALS: ESWATINI

This document consists of the comments and recommendations of the Secretariat on the following project proposals:

Phase-out

- HCFC phase-out management plan (stage II, second tranche) UNEP and UNDP

Phase-down

- Kigali HFC implementation plan (stage I, first tranche) UNEP and UNDP

* Reissued for technical reasons on 8 May 2024.

[1] UNEP/OzL.Pro/ExCom/94/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Eswatini

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNEP (lead), UNDP	86th	100% phase-out by 2030

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2022	0.59 ODP tonnes

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)									Year: 2022
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22									0.59

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	1.73	Starting point for sustained aggregate reductions:	7.30
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	7.30	Remaining:	0.00

(V) ENDORSED BUSINESS PLAN		2024	2025	2026	Total
UNEP	ODS phase-out (ODP tonnes)	0.25	0.00	0.00	0.25
	Funding (US $)	214,700*	0	0	214,700*
UNDP	ODS phase-out (ODP tonnes)	0.29	0.00	0.00	0.29
	Funding (US $)	152,600	0	0	152,600

* Including US $100,000 plus agency support costs of US $13,000 for UNEP for additional activities to maintain energy efficiency (decision 89/6).

(VI) PROJECT DATA			2020-2023	2024*	2025-2026	2027	2028-2029	2030	Total
Montreal Protocol consumption limits (ODP tonnes)			1.12	1.12	0.56	0.56	0.56	0	n/a
Maximum allowable consumption (ODP tonnes)			1.11	1.11	0.56	0.56	0.56	0	n/a
Funding agreed in principle (US $)	UNEP	Project costs	70,000	220,000	0	95,000	0	65,000	450,000
		Support costs	9,100	28,600	0	12,350	0	8,450	58,500
	UNDP	Project costs	50,000	140,000	0	0	0	0	190,000
		Support costs	4,500	12,600	0	0	0	0	17,100
Funds approved by ExCom (US $)		Project costs	120,000						120,000
		Support costs	13,600						13,600
Total funds recommended for approval at this meeting (US $)		Project costs		360,000					360,000
		Support costs		41,200					41,200

* Funding for 2024 includes US $100,000, plus agency support costs of US $13,000 for UNEP, for additional activities to maintain energy efficiency (decision 89/6).

Secretariat's recommendation:	Blanket approval

PROJECT DESCRIPTION

1. On behalf of the Government of Eswatini, UNEP as the lead implementing agency has submitted a request for funding for the second tranche of stage II of the HCFC phase-out management plan (HPMP), at a total cost of US $401,200, consisting of US $220,000, plus agency support costs of US $28,600, for UNEP and US $140,000, plus agency support costs of US $12,600, for UNDP.[2] The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2018 to 2023, a request for funding additional activities to maintain energy efficiency in the refrigeration servicing sector,[3] and the tranche implementation plan for 2024 to 2027.

Report on HCFC consumption

2. The Government of Eswatini reported a consumption of 0.42 ODP tonnes of HCFC-22 in 2023 in the verification report, which is 76 per cent below the country's HCFC baseline for compliance. The 2018–2023 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in Eswatini (2018–2023 Article 7 data)

HCFC	2018	2019	2020	2021	2022	2023*	Baseline
Metric tonnes (mt)							
HCFC-22	8.50	5.80	7.41	6.79	10.64	7.68	31.36
Total (mt)	**8.50**	**5.80**	**7.41**	**6.79**	**10.64**	**7.68**	**-**
HCFC-141b in imported pre-blended polyols**	0.11	0.00	0.00	0.00	0.00	0.00	50.90**
ODP tonnes							
HCFC-22	0.47	0.32	0.41	0.37	0.59	0.42	1.73
Total (ODP tonnes)	**0.47**	**0.32**	**0.41**	**0.37**	**0.59**	**0.42**	**-**
HCFC-141b in imported pre-blended polyols**	0.00	0.00	0.00	0.00	0.00	0.00	5.60**

* Data from the verification report on HCFC consumption.
** Starting point established in the Agreement with the Executive Committee.

3. HCFC consumption has been fluctuating, with a decreasing trend from 2018 to 2021 due to the implementation of the activities of the HPMP and the introduction of HCFC alternatives. The high consumption in 2022 was attributed to the restoration and recharging of equipment that was damaged and vandalized during the political unrest in 2021, which affected commercial and industrial systems that required major servicing.

Country programme implementation report

4. The Government of Eswatini reported HCFC sector consumption data under the 2022 country programme (CP) implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol. The CP data for 2023 will be reported and is consistent with the verification report.

Verification report

5. The verification report confirmed that the Government was implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2019 to 2023 was correct (as shown in table 1 above). The verification recommended that the valid period of the import permit be revised so that all imports are completed within the same year. The verification concluded that Eswatini has been complying with the targets in the

[2] As per the letter of 20 March 2024 from the Eswatini Environmental Authority to the Secretariat.
[3] In line with decision 89/6, low-volume-consuming countries can include in their HPMPs additional activities for the introduction of alternatives to HCFCs with low or zero global warming potential (GWP) and for maintaining energy efficiency in the refrigeration servicing sector.

Agreement with the Executive Committee on HCFC consumption reduction under stage II of the HPMP for the period 2018–2023.

Status of implementation of stage I of the HCFC phase-out management plan

6. Stage I of the HPMP was completed on 1 December 2021. The project completion report was submitted on 5 September 2023.

Progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan

Legal framework

7. Through the 2024 revision of an ODS and HFC regulation, the Government of Eswatini has established a ban on the import of HCFC-based equipment which will become effective on 1 January 2025. The regional minimum energy performance standards (MEPS, SZNS SADC 110:2023) and a labelling standard for air-conditioning (AC) and refrigeration appliances were adopted and went into effect in January 2024. The country also adopted the International Electrotechnical Commission standard (IEC-62552-3-2015) which provides guidance on the MEPS and labelling requirements for refrigerators manufactured in the country starting from 2018. The standard for refrigerated systems (SZNS SANS 10147:2014) was adopted to support safety in refrigerant use for refrigeration and AC systems. The country has also adopted ISO 817, a designation and safety classification standard for chemicals including refrigerants.

Refrigeration servicing sector

8. The following activities have been conducted:

(a) Training of 13 trainers and 71 customs and enforcement officers (35 women), 45 police officers and 28 border clearing agents in monitoring HCFC imports, data collection and identification of illegal trade; one border dialogue with three neighbouring countries with the participation of 23 customs officers; one joint training and inspection session with South Africa for 10 customs officers on monitoring and identifying HCFC refrigerants; and inspections of HCFC importers and distributers;

(b) Development and implementation of the technician certification scheme, development of the first grade testing standards, and training of five assessors; 27 technicians have undergone the grade testing;

(c) Training of 12 trainers and 78 technicians (six women) in good servicing practices and the safe handling of hydrocarbon refrigerants (R-600a and R-290), and provision of 70 sets of tool kits (leak detector, gauge, charging scale, fire extinguisher, vacuum pump) to trained technicians;

(d) Development of the business model for refrigerant recovery and recycling centres; development of specifications for equipment and tools (R-290 training stands, recovery machines, and tools) for three training colleges and refrigeration and air-conditioning (RAC) associations; and

(e) Awareness-raising activities on newly developed regulations including the ban on HCFC-based equipment, MEPS for AC and refrigeration appliances; a meeting with 55 members of the RAC association to discuss good servicing practices and existing national refrigeration standards.

Project implementation and monitoring

9. Project implementation, coordination, monitoring, and reporting was conducted by the national ozone unit (NOU) with the support of UNEP at a total cost of US $10,000 for staff and consultants (US $2,000), travel (US $3,000), meetings and workshops (US $4,000), and miscellaneous expenses (US $1,000).

Level of fund disbursement

10. As of March 2024, of the US $120,000 approved so far (US $70,000 for UNEP and US $50,000 for UNDP), US $70,000 (58.3 per cent) had been disbursed by UNEP. The balance of US $50,000 will be disbursed in 2024–2025.

Implementation plan for the second tranche of stage II of the HCFC phase-out management plan

11. The following activities will be implemented between June 2024 and May 2027:

(a) Strengthening the licensing and quota system by developing an electronic licensing (e-licensing) system and a registration of all importers; awareness-raising activities on the ban on HCFC-based equipment; and disseminating information to the public and relevant sectors on the revised ODS and HFC regulations (UNEP) (US $30,000);

(b) Providing training to 10 trainers and 60 customs officers on the monitoring and control of HCFC imports and the prevention of illegal trade; developing and implementing risk profiling for the prevention of illegal trade; and conducting one border dialogue and two joint inspections (UNEP) (US $40,000);

(c) Conducting four workshops to train 80 RAC technicians in the use of low-GWP refrigerants in the cold chain, meat processing, and AC equipment servicing sectors; providing refresher training to five certification assessors; and expanding the technician certification scheme to include higher certification levels (UNEP) (US $40,000);

(d) Providing equipment and tools[4] for three training colleges and RAC associations; establishing six refrigerant recovery and recycling centres; training 20 RAC technicians in maintaining records for recovery and recycling data; and conducting three awareness-raising campaigns aimed at targeted end-users (UNDP) (US $140,000);

(e) Activities to maintain energy efficiency: These activities are described in detail in the following section (UNEP) (US $100,000); and

(f) Project monitoring (UNEP) (US $10,000) for staff and consultants (US $4,000) and meetings and workshops (US $6,000).

Activities to maintain energy efficiency in the refrigeration servicing sector

12. The project related to energy efficiency, submitted in line with decision 89/6, has been designed to promote the adoption of low-GWP alternative technologies while phasing out HCFCs and to promote the adoption of the MEPS. The description and proposed cost of activities to maintain energy efficiency in the sector, to be implemented by UNEP, are presented in table 2 below.

[4] Equipment for refrigerant recovery and recycling, leak detection and refrigerant identification.

Table 2: Proposed cost of activities to maintain and enhance energy efficiency in Eswatini (US $)

Activity	Cost as submitted
Building capacity of stakeholders through a five-day study tour for eight people from the NOU, energy regulatory authority, standards authority, revenue service, Ministry of Finance, and climate change unit to a country that has experience in developing an energy efficiency rating and labelling standards.	30,000
Updating training materials and conducting two workshops to train 30 customs officers on monitoring imports of refrigeration, air-conditioning, and heat pump (RACHP) equipment and on reading energy labels.	10,000
Updating training materials and conducting two workshops to train 60 RAC trainers and technicians on monitoring energy efficiency in equipment; and organizing one information session for 50 technical experts from the private sector and end-users, covering energy efficiency and low-GWP refrigerants.	21,000
Developing outreach materials to raise awareness among consumers on the energy-efficiency labelling of appliances.	15,000
Organizing one information session for 30 equipment importers and end-users to raise awareness on MEPS and on the importance of importing energy-efficient appliances.	13,000
Carrying out a consumer behaviour study to evaluate the impacts of the project and assessing barriers to adopting energy-efficient and low-GWP equipment.	11,000
Total	**100,000**

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption and verification

13. Based on the recommendations of the verification report, the Government has already taken several actions to further strengthen the monitoring of ODS, including the revision of ODS and HFC regulations to include the expiry of all ODS and HFC import licences on 31 December of the year of issuance.

Progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan

Legal framework

14. The national quota for HCFCs in 2024 has been issued in line with the Montreal Protocol control targets.

Refrigeration servicing sector

15. The Secretariat noted that although progress had been made in implementation as described in paragraph 8(d), no disbursement had been made by UNDP. It was clarified that the preparation of equipment specifications and going through procurement procedures took additional time, funds had been committed and will be disbursed together with the funding from the second tranche for purchase of equipment and tools.

16. The implementation of the first tranche is progressing well. Low-GWP technologies have been introduced and have started to penetrate the market, including R-600a in the domestic refrigeration sector and R-290 in the stand-alone commercial refrigeration sector. For the AC sector, HFC-32 has been introduced to replace HCFC-22. A mandatory technician certification system is being implemented to support the adoption of alternatives that are flammable, toxic, and high pressure.

Activities to maintain energy efficiency in the refrigeration servicing sector

17. In line with decision 89/6(d), UNEP has included in the tranche implementation plan the specific actions, performance indicators, and funding associated with additional activities to maintain energy efficiency. The MEPS are being implemented, covering self-contained and single-split AC units, air-to-air reversible heat pumps and portable AC units with a cooling capacity below 16 kW, as well as refrigerators with a volume between 10 to 1,500 litres. The current labelling system includes the types of refrigerants and their ODP and GWP values.

18. The Secretariat sought clarification on the purpose of the study tour, noting that Eswatini has already developed the MEPS and labelling system. UNEP explained that the MEPS and labelling system are still in the initial stages of implementation and in the process of being regulated. The study tour is pivotal in assisting national experts in benchmarking based on best practices that have been applied by other countries that have implemented and regulated energy-efficient appliances. In addition, the study tour will seek to ascertain monitoring processes for energy-efficient appliances and identify incentives that can be applied by Eswatini to encourage the use of energy-efficient RAC equipment or appliances and procedures. Upon further discussion, the costs of activities were optimized to better utilize the funding, with the following adjustment: the funding for the study tour was reduced by US $15,000, and the funding for the consumer behaviour study was reduced by US $1,000. The funding for the training of customs officers was increased by US $5,000, the amount for the training of technicians was increased by US $9,000, and the amount for the information session for importers and end-users was increased by US $2,000, as shown in table 3 below.

Table 3: Agreed cost of activities to maintain and enhance energy efficiency in Eswatini (US $)

Activity	Cost as submitted	Cost as agreed
Capacity-building of stakeholders: Five-day study tour for eight people from the NOU, the energy regulatory authority, standards authority, revenue service, Ministry of Finance, and the climate-change unit to a country that has experience in developing an energy-efficiency rating and labelling standards.	30,000	15,000
Updating training materials and conducting two workshops to train 30 customs officers in monitoring the imports of RACHP equipment and on reading energy labels.	10,000	15,000
Updating training materials and conducting two workshops to train 60 RAC trainers and technicians in monitoring energy efficiency in equipment; and organizing one information session for 50 technical experts from the private sector and end-users, covering energy efficiency and low-GWP refrigerants.	21,000	30,000
Developing outreach materials to raise awareness among consumers on the energy-efficiency labelling of appliances.	15,000	15,000
Organizing one information session for 30 equipment importers and end-users to raise awareness on MEPS and the importance of importing energy-efficient appliances.	13,000	15,000
Carrying out a consumer behaviour study to evaluate the impacts of the project and to assess barriers to adopting energy-efficient and low-GWP equipment.	11,000	10,000
Total	**100,000**	**100,000**

Gender policy implementation

19. The Multilateral Fund gender mainstreaming policy has been applied in the implementation of the first tranche and the planning of the second tranche in line with decisions 84/92(d) and 92/40. The NOU has already started to collect gender disaggregated data during workshops, meetings, and engagements to ascertain the level of participation for women, and is making efforts to achieve gender balance among project staff in all project activities. Capacity-building activities are particularly gender responsive: 43 per cent of the participants in customs training are female; and 36 per cent of participants in the training for importers and brokers are female. The NOU hired a gender specialist to develop a strategy to be implemented for gender mainstreaming in line with the Fund's and the national gender policy.

Updated Agreement

20. In view of the revised funding level due to the inclusion of funding for additional activities to maintain energy efficiency in the refrigeration servicing sector, the Agreement between the Government of Eswatini and the Executive Committee has been updated. Specifically, Appendix 2-A has been revised and paragraph 17 has been added to indicate that the updated Agreement supersedes that reached at the 86th meeting, as contained in annex I to the present document. The full updated Agreement will be appended to the final report of the 94th meeting.

Sustainability of the HCFC phase-out and assessment of risks

21. The country is making efforts to ensure the long-term sustainability of HPMP activities while phasing out the remaining HCFCs. The HCFC phase-out will be sustained through the ban on the import of HCFC-based equipment to be implemented in 2025; the 2016 ban on the import of HCFC-141b pure and contained in pre-blended polyols; the implementation of the competency-based RAC technician certification scheme; the implementation of good servicing practices; the 2022 Environment Assessment Regulations on the management of ODS emissions from new and existing developments; a strengthened licensing and quota system for controlled substances; and the continued training of customs officers, importers and technicians. In addition, the Government is implementing the MEPS and labelling system which will control the import of appliances using controlled substances.

22. The slow penetration of low-GWP technologies could hinder the market adoption of these alternatives. The implementation of the MEPS and labelling system, training of technicians, and awareness-raising activities are expected to further promote the adoption of low-GWP technologies. The timely approval of the 2024 revised ODS and HFC regulation and the successful introduction of the ban on the import of HCFC-based equipment are considered important to support the sustainable HCFC phase-out and the further introduction of low-GWP technologies. The NOU has already started to engage stakeholders to support the legislative process and sensitize equipment importers, distributors, and retailers on the upcoming ban. In addition, the capacity-building and training for customs and other border enforcement agencies will ensure that the ban will be effectively enforced.

Conclusion

23. The country has an enforceable licensing and quota system and is in compliance with the 2020-2023 targets specified in its Agreement with the Executive Committee. The level of disbursement is 58 per cent. The country has implemented a ban on the import of HCFC-141b contained in pre-blended polyols as of 1 January 2016, and the import of HCFC-141b has been zero. Furthermore, a ban on the import of HCFC-based equipment is planned to be implemented in 2025. The country has planned to develop an e-licensing system and to register all importers to strengthen the import control of HCFCs. Training of technicians in the safe handling of hydrocarbon refrigerants and the implementation of the MEPS and labelling system will further support the market penetration of these low-GWP technologies and help leapfrog from HCFCs to environmentally friendly alternatives. Based on the progress achieved and the disbursement rate, the Secretariat recommends approval of the second tranche.

RECOMMENDATION

24. The Fund Secretariat recommends that the Executive Committee:

(a) Note:

(i) The progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan (HPMP) for Eswatini;

(ii) The submission of additional activities to maintain energy efficiency in the refrigeration servicing sector in the amount of US $100,000, plus agency support costs of US $13,000, for UNEP;

(iii) That the Fund Secretariat has updated the Agreement between the Government of Eswatini and the Executive Committee, as contained in annex I to the present document, specifically: Appendix 2-A, based on the revised funding level due to the inclusion of funding for additional activities to maintain energy efficiency in the refrigeration servicing sector referred to in subparagraph (a)(ii) above; and paragraph 17 that has been added to indicate that the updated Agreement supersedes that reached at the 86th meeting; and

25. The Fund Secretariat further recommends blanket approval of the second tranche of stage II of the HPMP for Eswatini, and the corresponding 2024–2027 tranche implementation plan, at the funding levels shown in the table below.

	Project title	**Project funding (US $)**	**Support costs (US $)**	**Implementing agency**
(a)	HCFC phase-out management plan (stage II, second tranche)	220,000	28,600	UNEP
(b)	HCFC phase-out management plan (stage II, second tranche)	140,000	12,600	UNDP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Eswatini

PROJECT TITLE	AGENCY
Kigali HFC implementation plan (stage I)	UNEP (lead), UNDP

LATEST ARTICLE 7 DATA (Annex F)	Year: 2022	26.11 mt	69,106 CO_2-eq tonnes

SECTORAL DATA (CO_2-eq tonnes) AND PLANNED ACTIVITIES								Year: 2023	
	Aerosol	Foam	Fire-fighting	AC and refrigeration			Servicing	Solvent	Other
				Manufacturing					
				Refrigeration	AC	Other			
As submitted (2022)							69,106		
Latest CP report (2023)							106,607		
KIP stage I activities as agreed (Y/N)							Y		

AVERAGE 2020-2022 HFC CONSUMPTION IN SERVICING	24.65 mt	68,605 CO_2-eq tonnes

BASELINE CONSUMPTION DATA (CO_2-eq tonnes)	2020	2021	2022	Average 2020-2022
HFC annual consumption	32,388	104,320	69,106	68,605
HCFC baseline (65%)				36,895
HFC baseline				105,500

HFC CONSUMPTION ELIGIBLE FOR FUNDING	
Starting point for sustained aggregate reductions	n/a
Previously approved HFC phase-down investment projects	No
Aggregate reductions from previously approved projects (CO_2-eq tonnes)	n/a

PROJECT DATA AS AGREED			2024*	2025-2026	2027	2028	2029-2030	Total
Consumption (CO_2-eq tonnes)	Montreal Protocol limits		105,500				94,950	n/a
	Maximum allowable		105,500				94,950	n/a
	Maximum allowable (%)		100	100	100	100	90	n/a
Amounts recommended in principle (US $)	UNEP	Project costs	63,500	0	51,500	0	0	115,000
		Support costs	8,255	0	6,695	0	0	14,950
	UNDP	Project costs	0	0	30,000	0	0	30,000
		Support costs	0	0	3,900	0	0	3,900
	Total project costs		63,500	0	81,500	0	0	145,000
	Total support costs		8,255	0	10,595	0	0	18,850
	Total funds		71,755	0	92,095	0	0	163,850

* Recommended for approval at the present meeting

Reduction from stage I in CO_2-eq tonnes	10,550

Secretariat's recommendation:	Individual consideration (Secretariat presentation not required)

PROJECT DESCRIPTION

26. The present document contains the following sections:

I. Summary of the proposal as submitted

II. Background: Implementation status of the country's HCFC phase-out management plan and previous HFC-related projects

III. HFC consumption: Overview of the country's HFC consumption levels, trends and sectoral uses

IV. Stage I of the Kigali HFC implementation plan, as submitted: Overarching strategy and plan of implementation for the first tranche

V. Secretariat's comments, including the agreed cost of activities

VI. Recommendation

I. Summary of the proposal as submitted

27. On behalf of the Government of Eswatini, UNEP as the lead implementing agency has submitted a request for stage I of the Kigali HFC implementation plan (KIP), at a total cost of US $163,850, consisting of US $115,000, plus agency support costs of US $14,950 for UNEP and US $30,000, plus agency support costs of US $3,900 for UNDP, as originally submitted.[5]

28. The implementation of stage I of the KIP will assist the Government of Eswatini in meeting the target of 10 per cent reduction from its HFC baseline consumption by 1 January 2029. The project will be implemented between 2024 to 2030 as originally submitted.

29. The first tranche of stage I of the KIP being requested at the present meeting amounts to US $71,755, consisting of US $63,500, plus agency support costs of US $8,255 for UNEP only, as originally submitted, for the period of June 2024 to June 2026.

II. Background

Status of implementation of the HCFC phase-out management plan

30. Table 4 presents information on the HPMP in Eswatini as of May 2024.

Table 4. HPMP implementation status for Eswatini

	Stage I	Stage II
Meetings when HPMP was approved/updated	63rd/77th	86th
Reduction from baseline	35% by 2020	100% by 2030
Total project cost (US $)	877,948	540,000
Date of completion (actual/planned)	31 December 2021	31 December 2031

[5] As per the letter of 5 February 2024 from the Eswatini Environment Authority to the Secretariat.

Status of implementation of previous HFC-related activities

31. Table 5 presents an overview of activities implemented in Eswatini in the context of the Kigali Amendment that have been funded by the Multilateral Fund.

Table 5. Previously approved HFC-related activities in Eswatini

Approval meeting	Project title	Implementing agency	Cost (US $)	Date of completion
74th	Survey of ODS alternatives	UNEP	70,000	May 2015
81st	Enabling activities for HFC phase-down	UNEP	94,509	June 2018

III. HFC consumption overview

HFC consumption levels

32. Eswatini only imports HFCs for use in the refrigeration and air-conditioning (RAC) and mobile air-conditioning (MAC) servicing sectors. The most consumed substances in 2023 were R-404A (38.1 per cent of total HFC consumption in CO_2-equivalent (CO_2-eq) tonnes), R-507A (30.5 per cent), R-410A (18.4 per cent), HFC-134a (11.2 per cent), and other HFCs (1.8 per cent). Table 6 presents the country's HFC consumption as reported to the Ozone Secretariat under Article 7 of the Montreal Protocol.

Table 6. HFC consumption in Eswatini (2019–2023 Article 7 data)

HFC	GWP*	2019	2020	2021	2022	2023**
Metric tonnes (mt)						
HFC-32	675.00	0.00	0.00	0.03	0.00	0.00
HFC-125	3,500.00	0.00	0.00	0.00	0.00	0.00
HFC-134a	1,430.00	6.30	6.82	7.86	9.01	8.32
R-404A	3,921.60	3.60	3.20	18.61	5.33	10.36
R-407A	2,107.00	0.00	1.20	0.18	0.53	0.43
R-407C	1,773.85	0.40	0.30	0.00	0.00	0.56
R-410A	2,087.50	4.00	2.85	3.31	5.58	9.42
R-507A	3,985.00	0.45	0.27	3.21	5.66	8.16
Total (mt)		**14.75**	**14.64**	**33.20**	**26.11**	**37.25**
CO_2-eq tonnes						
HFC-32	675.00	0	0	18	0	0
HFC-125	3,500.00	0	0	0	0	0
HFC-134a	1,430.00	9,009	9,753	11,240	12,884	11,898
R-404A	3,921.60	14,118	12,549	72,981	20,902	40,628
R-407A	2,107.00	0	2,528	379	1,117	906
R-407C	1,773.85	710	532	0	0	993
R-410A	2,087.50	8,350	5,949	6,910	11,648	19,664
R-507A	3,985.00	1,793	1,076	12,792	22,555	32,518
Total (CO_2-eq tonnes)		**33,980**	**32,388**	**104,320**	**69,106**	**106,607**

* Global warming potential

** Country programme (CP) data

Established HFC baseline

33. The Government of Eswatini reported the Article 7 data for 2020–2022. The country's HFC consumption baseline was established at 105,500 CO_2-eq tonnes by adding 65 per cent of its HCFC baseline (expressed in CO_2-eq tonnes) to its average HFC consumption in 2020-2022, as shown in table 7.

Table 7. HFC baseline calculation for Eswatini (CO_2-eq tonnes)

Baseline calculation components	2020	2021	2022
HFC annual consumption	32,388	104,320	69,106

Baseline calculation components	2020	2021	2022
HFC average consumption in 2020–2022			68,605
HCFC baseline (65%)			36,895
HFC baseline			**105,500**

Country programme implementation report

34. The sectoral HFC consumption data provided by the Government of Eswatini in its CP implementation report for 2022 is consistent with the data reported under Article 7 of the Montreal Protocol.

HFC consumption trends

35. The HFC consumption has been fluctuating with an increasing trend. Several factors have contributed to that growth, including under-reported HFC consumption prior to 2021 as the licensing system was not effective until 1 January 2021; economic recovery after the political unrest in 2021; and the establishment of additional cold storage facilities in 2021 to enable the national COVID-19 vaccination rollout countrywide. In addition, there was a large expansion in retail outlets, resulting in new installations of freezer rooms which required R-404A.

36. The small amount of pure HFC-32 imported only in 2021 was for the installation and servicing of a few HFC-32 based air-conditioners. HFC-32-based equipment is not widely used in the country at the moment.

HFC consumption by sector

37. HFCs are solely consumed for servicing equipment in the commercial refrigeration subsector (75.3 per cent in mt and 81.6 per cent in CO_2-eq tonnes), followed by the MAC subsector (11.0 per cent in mt and 5.9 per cent in CO_2-eq tonnes), the residential air-conditioning (AC) subsector (9.2 per cent in mt and 7.2 per cent in CO_2-eq tonnes), and the remaining consumption in the domestic and transport refrigeration subsectors, as shown in table 8. The country also manufactures refrigeration equipment using R-600a.

Table 8. HFC consumption in the refrigeration and AC servicing subsectors in Eswatini (2022)

Subsector	HFC-134a	R-410A	R-404A	R-507A	R-407A	Total	Share (%)
mt							
Domestic refrigeration	0.43	0.00	0.38	0.00	0.00	0.81	3.1
Commercial and industrial refrigeration	5.72	3.19	4.56	5.66	0.53	19.66	75.3
Transport refrigeration	0.00	0.00	0.39	0.00	0.00	0.39	1.5
Residential AC	0.00	2.39	0.00	0.00	0.00	2.39	9.2
MAC	2.86	0.00	0.00	0.00	0.00	2.86	11.0
Total (mt)	**9.01**	**5.58**	**5.33**	**5.66**	**0.53**	**26.11**	**100.0**
CO_2-eq tonnes							
Domestic refrigeration	615	0	1,490	0	0	2,105	3.0
Commercial and industrial refrigeration	8,180	6,659	17,882	22,555	1,117	56,393	81.6
Transport refrigeration	0	0	1,529	0	0	1,529	2.2
Residential AC	0	4,989	0	0	0	4,989	7.2
MAC	4,090	0	0	0	0	4,090	5.9
Total (CO_2-eq tonnes)	**12,884**	**11,648**	**20,902**	**22,555**	**1,117**	**69,106**	**100.0**
Percentage (%)	18.6	16.9	30.2	32.6	1.6	100.0	-

Refrigeration and air-conditioning servicing sector

38. There are approximately 310 technicians (including 12 women) and 50 workshops consuming HFCs in Eswatini. Approximately 124 of these technicians have undergone formal training, while the remaining 186 servicing technicians have only had on-the-job training. A total of 210 technicians have been trained in good servicing practices and the safe handling of flammable and toxic refrigerants. There are two vocational training institutes that hold courses related to RAC maintenance as part of electrical engineering programmes, and through which 40 electrical technicians are trained annually.

39. The certification of technicians is being implemented under stage II of the HPMP. The first 27 technicians (two women) were certified in October 2023. The certification is expected to be conducted on an annual basis in subsequent years.

Domestic, commercial, industrial and transport refrigeration servicing

40. The commercial and industrial refrigeration subsector comprises approximately 12,000 condensing units, cold rooms, chillers, and ice-making plants installed in commercial buildings and for industrial use. The dominant refrigerant in the subsector is R-134a (47.7 per cent of total equipment), followed by R-404A (19.5 per cent), R-290 (14.1 per cent), R-600a (9.5 per cent), HCFC-22 (8.9 per cent). The remaining equipment uses R-410A, R-407A and R-717.

41. The domestic refrigeration servicing subsector consumes only 3 per cent of all HFCs, although it has the most equipment (estimated at 180,000 units of fridges, freezers and water coolers). Low-GWP technology (R-600a) has been widely adopted in the subsector, with 49 per cent of equipment based on R-600a and the rest using HFC-134a (50.8 per cent) with negligible use of R-404A and R-717 (0.05 per cent). The country also manufactures R-600a-based refrigerators.

42. The transport refrigeration sector comprises approximately 200 units of refrigerated trucks for food distribution. R-404A is the sole refrigerant used in the subsector.

Residential, commercial and mobile air-conditioning servicing

43. The stationary AC subsector comprises approximately 58,000 pieces of equipment. Out of this stock, 57 per cent uses HCFC-22 and 43 per cent uses R-410A. A few units of HFC-32-based AC have been introduced into the country, and HFC-32 was imported in 2021 to service the installed equipment.

44. The country's MAC servicing sector refers to climate-control systems installed in 274,000 cars, sport utility vehicles, commercial trucks, and buses, and solely uses HFC-134a as refrigerant.

Local installation and assembly subsector

45. The local installation and assembly subsector mainly includes air-conditioners, air-handling units, cold rooms and freezer rooms. The refrigerants used are mainly R-404A, R-410A and R-507C. Flammability and the limitations linked to the charge size of alternatives are the main challenges to adopting low-GWP technologies for larger systems in the subsector. For the smaller units, R-290 has been introduced. Training and awareness activities on the safe use of low-GWP alternatives are continuously conducted to address this challenge.

IV. Stage I of the Kigali HFC implementation plan as submitted

Institutional, policy and regulatory framework

46. Eswatini ratified the Kigali Amendment in November 2020. The Government is amending the ODS Regulations of 2003 to include import, export and use controls on HFC and HFC-based products and

equipment. The amended legislation is currently awaiting the Government gazetting process. The licensing system was established in 2021, and Harmonized System codes for HFCs have also been included in the licensing system. The quota system for HFCs is planned to be effective by 1 April 2024 once the amended legislation is published. HFC controls were further incorporated into the customs ASYCUDA[6] system to ensure that all imports and exports are monitored and controlled accordingly.

Phase-down strategy for stage I of the Kigali HFC implementation plan

Overarching strategy

47. The KIP for Eswatini will adopt a staged approach (total four stages) and follow the Montreal Protocol to phase down HFCs. Stage I of the KIP, from 2024 to 2030 as originally submitted, plans to reduce 10 per cent of the HFC baseline by 2029 and address specific needs in prioritized sectors to enable the reduction of HFCs and the transition to low-GWP alternatives.

Proposed activities

48. The following activities are proposed to be implemented in stage I of the KIP during the period 2024-2030:

(a) Strengthening the regulatory framework by assessing the quota distribution strategy for HFC control; evaluating a possible quota control on HFC-based equipment to promote the market uptake of low-GWP alternatives; updating the training manual to include HFCs and training 150 customs officers on HFC import control; facilitating one border dialogue with neighbouring countries; and collecting data to improve the continuous monitoring of market adoption of low-GWP technologies (UNEP) (US $43,000);

(b) Training 125 servicing technicians in good servicing practices and the safe handling of low-GWP refrigeration technologies (domestic, commercial and industrial) that are flammable, toxic and high pressure; and conducting one training for female technicians to support their certification (UNEP) (US $32,000);

(c) Demonstrating low-GWP technologies at end-users in commercial and industrial subsectors to show the safety, applicability and energy efficiency of alternatives (UNDP) (US $30,000);

(d) Conducting awareness-raising activities on the enforcement of minimum energy performance standards (MEPS) and labelling of equipment, and on the use of low-GWP and energy efficient technologies in domestic and commercial AC sectors; and providing support to industry associations (UNEP) (US $24,000); and

(e) Project coordination and monitoring (UNEP) (US $16,000).

Project implementation, coordination and monitoring

49. The national ozone committee established during the HPMP will continue to monitor the overall HFC phase-down, including programme planning and implementation of activities. The national ozone unit (NOU) will oversee day-to-day activities with the support of UNEP. The cost for project coordination, monitoring and reporting amounts to US $16,000 for UNEP for staff and consultant (US $3,000); travel (US $4,000); meetings (US $7,000); and miscellaneous expenses (US $2,000).

[6] Automated System for Customs Data

Gender policy implementation

50. The Government has developed a national gender policy and related strategies to support women's empowerment and the advancement of gender equality, and mechanisms have been instituted to support their implementation through national and international programmes. In line with these policies and the gender mainstreaming policies of the Multilateral Fund, the implementation of stage I will integrate gender equality and women's empowerment into all activity components. The NOU will seek stakeholder input on opportunities to integrate gender-specific indicators into each activity, focusing on encouraging gender-balanced participation in training, capacity-building activities and other supporting measures. The gender-disaggregated data will be used for monitoring project performance and for evaluating the impact of gender mainstreaming efforts. Outreach activities, including through public forums and information sessions, will target gender balance, and support will be provided to female RAC technicians through certification assistance and additional training.

Coordination of activities in the servicing sector under HCFC phase-out and HFC phase-down plans

51. Stage I of the KIP will be implemented simultaneously with stage II of the HPMP. The Government will ensure coordination and synergy to maximize impact. The activities planned under the KIP complement those under the HPMP. The training manual for customs officers will be updated under stage I of the KIP to include HFC control and the subsequent customs training will be covered under stage II of the HPMP. The awareness-raising activities under the KIP will focus on MEPS enforcement and the promotion of low-GWP energy-efficient alternatives in the AC sector. The details of the coordination between the KIP and the HPMP are presented in annex III.

Total cost of stage I of the Kigali HFC implementation plan

52. The total cost of stage I of the KIP for Eswatini has been proposed at US $145,000. The costs of activities in the refrigeration servicing sector have been proposed in line with decision 92/37.

Implementation of the first tranche of stage I of the Kigali HFC implementation plan

53. The first funding tranche of stage I of the KIP, in the total amount of US $63,500 for UNEP, will be implemented between June 2024 and June 2026 and will include the following activities:

(a) Strengthening the regulatory framework by assessing the quota distribution strategy for HFC control; evaluating a possible quota control on HFC-based equipment to promote the market uptake of low-GWP alternatives; updating the training manual to include HFCs, and training 70 customs officers in HFC import control; facilitating one border dialogue with neighbouring countries; and data collection to improve the continuous monitoring of market adoption of low-GWP technologies (US $26,000);

(b) Training 45 servicing technicians in good servicing practices and the safe handling of low-GWP refrigeration technologies (domestic, commercial and industrial) that are flammable, toxic and high pressure; and conducting one training session for female technicians to support their certification (US $18,500);

(c) Conducting awareness-raising activities on the enforcement of MEPS and labelling of equipment, and on the use of low-GWP and energy-efficient technologies in domestic and commercial AC sectors; and support to industry associations (US $12,500); and

(d) Project coordination and monitoring (US $6,500) for travel (US $2,300), meetings (US $3,000), and miscellaneous expenses (US $1,200).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

V. Comments

Institutional, policy and regulatory framework

HFC licensing and quota system

54. The Secretariat noted that the revised regulation for operationalizing the quota system has not come into effect and queried how the country would ensure compliance. UNEP clarified that the revised regulation is at the final stage of approval, and the quota system for HFC imports is being enforced administratively by assigning a quota to each licence issued to importers. Subsequently, a sample of the import licence issued to importers was provided to the Secretariat, showing that the licence contains the maximum allowable amount of import. UNEP confirms that the country is enforcing the quota system administratively which will ensure compliance with the control target under the Montreal Protocol. The national quota for HFCs in 2024 has been determined in line with the Montreal Protocol control targets.

Technical and cost-related issues

55. Stage I of the KIP includes a technology demonstration project at end-users to address consumption in the commercial refrigeration sector. The Secretariat discussed with UNEP the sustainability and further scaling up of the demonstrated technology in line with decision 92/36. The discussion is summarized as follows. The country will select R-290 as the replacement technology for the beneficiary end-users that use high-GWP refrigerants in their equipment, and will collect information on energy-efficiency gains. The commercial refrigeration sector is a major consumer of HFCs in the country, and there are a few big industrial end-users of refrigeration equipment that might be interested in transitioning to low-GWP technologies given the energy-efficiency gains. The project intends to address the safety, applicability and energy-efficiency issues of the technology and will provide training to technicians on the technology issues. The project further includes a communication strategy to disseminate results. It is expected that these measures will support the further uptake of the demonstrated low-GWP technology and achieve sustainable results.

56. Upon enquiry on the status of implementation of the MEPS and labelling system, UNDP reported that currently these standards are implemented voluntarily. The Ministry of Natural Resources and Energy has engaged the Eswatini Energy Regulatory Authority (ESERA) to develop regulations that will make MEPS implementation mandatory.

Tranche distribution and cost adjustments

57. The Secretariat noted that the funding as submitted for stage I of the KIP was frontloaded, with 90 per cent of the funds requested for the 2024-2026 period. UNEP highlighted the limited level of funding for stage I and the need to control HFC consumption to achieve compliance. Upon consultation with UNEP and taking into consideration decision 93/105(b), it was agreed that stage I of the KIP would be implemented in two tranches, scheduled in 2024 and 2027, to allow for the proper planning and distribution of tranches as well as efficient implementation. The first tranche was agreed as submitted.

Total project cost

58. The budget for stage I has been proposed at US $145,000 solely for the activities in the refrigeration servicing sector in line with decision 92/37. The proposed activities and cost of stage I of the KIP are summarized in paragraph 48 of the present document. The implementation of stage I of the KIP for Eswatini will result in a reduction of 10,550 CO2-eq tonnes.

Co-financing

59. Co-financing from the Government will be in the form of in-kind contributions, including the monitoring and enforcement of regulatory measures as well as the implementation of the technician certification scheme, to support the country in achieving compliance with the HFC reduction schedule.

2024-2026 business plan of the Multilateral Fund

60. UNEP and UNDP are requesting US $145,000, plus agency support costs, for the implementation of stage I of the KIP for Eswatini. The total value of US $71,755, including agency support costs, requested for the period of 2024–2026, is US $2,834 above the amount in the business plan.

Sustainability of the HFC phase-down and assessment of risks

61. There are several areas where potential risks to the successful implementation of the KIP and to the country's compliance with the Montreal Protocol targets have been identified. The regulation on the HFC quota system is not yet in effect, posing a potential risk to compliance. To mitigate this risk, the Government has established and begun enforcing an administrative procedure to control imports of HFCs in 2024, in addition to carrying out training and awareness-raising activities for importers. The uptake of the low-GWP technology is identified as a medium-level of risk as Eswatini is a technology recipient country and can only import the equipment that is available on the market. The Government has planned intensive training of technicians on low-GWP technologies to enable them to easily move to the new technologies when the equipment is available.

62. To ensure the sustainability of the HFC phase-down and assist the market transition to low-GWP technologies, stage I of the KIP includes various components, including implementing the MEPS and labelling system to promote low-GWP technologies; training technicians in the safe handling of refrigerants to enable further adoption of low-GWP technologies; training customs officers and importers; and enforcing the licensing and quota system. Demonstration projects have also been planned to assist in technology uptake and to build the capacity of technicians in the commercial refrigeration sector. Awareness-raising and demonstration projects are expected to influence decision-making when procuring new equipment.

Impact on the climate

63. The activities proposed, including implementation of the MEPS and labelling system, training of technicians in good servicing practices including refrigerant recovery and reuse, and efforts to promote low-GWP alternatives, indicate that the implementation of stage I of the KIP will reduce HFC emissions into the atmosphere, resulting in climate benefits. While the Secretariat is not able to provide an estimate of the overall climate benefits of the KIP at the present meeting,[7] by 2029 Eswatini will have reduced the country's annual emissions by approximately 10,550 CO_2-eq tonnes of HFCs, calculated as the difference between the HFC baseline for compliance and the 2029 target, assuming that all HFCs consumed will eventually be emitted.

Draft Agreement

64. A draft Agreement between the Government of Eswatini and the Executive Committee for stage I of the KIP has not been prepared as the Agreement template is still under consideration by the Executive Committee.

[7] As noted in document 94/14, Overview of issues identified during project review, the Secretariat was in the process of developing a methodology to estimate the avoided emissions from the implementation of HFC phase-down projects supported by the Multilateral Fund.

65. If the Executive Committee so wishes, the funds for stage I of the KIP for Eswatini could be approved in principle, and funds for the first tranche could be approved on the understanding that the Agreement would be prepared and presented at a future meeting, before the submission of the second tranche, and once the Agreement template has been approved.

VI. Recommendation

66. The Executive Committee may wish to consider:

(a) Approving, in principle, stage I of the Kigali HFC implementation plan (KIP) for Eswatini for the period 2024–2030 to reduce HFC consumption by 10 per cent of the country's baseline by 2029, in the amount of US $163,850, consisting of US $115,000 plus agency support costs of US $14,950 for UNEP, and US $30,000 plus agency support costs of US $3,900 for UNDP, as reflected in the schedule contained in annex II to the present document;

(b) Noting that upon completion of the end-user technology demonstration project included in stage I of the KIP, UNDP will submit a final report on the implementation of this project, including the HFC phase-out and energy-efficiency gains achieved, in line with decision 92/36(g);

(c) Approving the first tranche of stage I of the KIP for Eswatini, and the corresponding tranche implementation plan, in the amount of US $63,500, plus agency support costs of US $8,255 for UNEP; and

(d) Requesting the Government of Eswatini, UNEP, UNDP and the Secretariat to finalize the draft Agreement between the Government of Eswatini and the Executive Committee for the reduction in consumption of HFCs, including the information contained in the annex referred to in subparagraph (a) above, and to submit it to a future meeting once the KIP Agreement template has been approved by the Executive Committee.

Annex I

TEXT TO BE INCLUDED IN THE UPDATED AGREEMENT BETWEEN THE GOVERNMENT OF ESWATINI 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

(Relevant changes are in bold font for ease of reference)

17. This updated Agreement supersedes the Agreement reached between the Government of Eswatini and the Executive Committee at the 86th meeting of the Executive Committee.

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)	1.12	1.12	1.12	0.56	0.56	0.56	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	1.11	1.11	1.11	0.56	0.56	0.56	0	n/a
2.1	Lead IA (UNEP) agreed funding (US $)	70,000	0	**220,000**	0	95,000	0	65,000	**450,000**
2.2	Support costs for Lead IA (US $)	9,100	0	**28,600**	0	12,350	0	8,450	**58,500**
2.3	Cooperating IA (UNDP) agreed funding (US $)	50,000	0	140,000	0	0	0	0	190,000
2.4	Support costs for Cooperating IA (US $)	4,500	0	12,600	0	0	0	0	17,100
3.1	Total agreed funding (US $)	120,000	0	**360,000**	0	95,000	0	65,000	**640,000**
3.2	Total support costs (US $)	13,600	0	**41,200**	0	12,350	0	8,450	**75,600**
3.3	Total agreed costs (US $)	133,600	0	**401,200**	0	107,350	0	73,450	**715,600**
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								1.11
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)								0.59
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								0
4.2.1	Total phase-out of HCFC-141b contained in imported pre-blended polyols agreed to be achieved under this Agreement (ODP tonnes)								0
4.2.2	Phase-out of HCFC-141b contained in imported pre-blended polyols to be achieved in the previous stage (ODP tonnes)								5.6
4.2.3	Remaining eligible consumption for HCFC-141b contained in imported pre-blended polyols (ODP tonnes)								0

Annex II

SCHEDULE OF HFC PHASE-DOWN AND HCFC PHASE-OUT COMMITMENTS AND FUNDING TRANCHES UNDER THE KIGALI HFC IMPLEMENTATION PLAN AND THE HCFC PHASE-OUT MANAGEMENT PLAN FOR ESWATINI

Kigali HFC implementation plan (stage I)

Row	Particulars	2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex F substances (CO_2-eq tonnes)	105,500	105,500	105,500	105,500	105,500	94,950	94,950	n/a
1.2	Maximum allowable total consumption of Annex F substances (CO_2-eq tonnes)	105,500	105,500	105,500	105,500	105,500	94,950	94,950	n/a
2.1	Lead IA (UNEP) agreed funding (US $)	63,500	0	0	51,500	0	0	0	115,000
2.2	Support costs for Lead IA (US $)	8,255	0	0	6,695	0	0	0	14,950
2.3	Cooperating IA (UNDP) agreed funding (US $)	0	0	0	30,000	0	0	0	30,000
2.4	Support costs for Cooperating IA (US $)	0	0	0	3,900	0	0	0	3,900
3.1	Total agreed funding (US $)	63,500	0	0	81,500	0	0	0	145,000
3.2	Total support costs (US $)	8,255	0	0	10,595	0	0	0	18,850
3.3	Total agreed costs (US $)	71,755	0	0	92,095	0	0	0	163,850

HCFC phase-out management plan (stage II)

Row	Particulars	2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	1.12	0.55	0.56	0.56	0.56	0.56	0.00	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	1.11	0.55	0.56	0.56	0.56	0.56	0.00	n/a
2.1	Lead IA (UNEP) agreed funding (US $)	220,000	0	0	95,000	0	0	65,000	380,000
2.2	Support costs for Lead IA (US $)	28,600	0	0	12,350	0	0	8,450	49,400
2.3	Cooperating IA (UNDP) agreed funding (US $)	140,000	0	0	0	0	0	0	140,000
2.4	Support costs for Cooperating IA (US $)	12,600	0	0	0	0	0	0	12,600
3.1	Total agreed funding (US $)	360,000	0	0	95,000	0	0	65,000	520,000
3.2	Total support costs (US $)	41,200	0	0	12,350	0	0	8,450	62,000
3.3	Total agreed costs (US $)	401,200	0	0	107,350	0	0	73,450	582,000

Annex III

SIMULTANEOUS IMPLEMENTATION OF THE HCFC PHASE-OUT MANAGEMENT PLAN AND THE KIGALI HFC IMPLEMENTATION PLAN IN ESWATINI

Component	Stage II HPMP	Cost	Stage I KIP	Cost	HPMP+KIP combined
Strengthening monitoring and enforcing control measures	Training of trainers by regional expert	10,000	Updating training curriculum for customs officials	5,000	15,000
	Facilitate border dialogue	10,000	Training of customs officers and other enforcement officers	20,000	30,000
	Review customs curriculum	5,000	Facilitating one border dialogue with neighbour countries	6,500	11,500
	Capacity building for customs and other border agencies	55,000	Strengthening the HFC licensing and quota system	5,000	60,000
	Procurement of identifiers	20,000			20,000
Capacity building for refrigeration servicing technicians, and awareness-raising and communication strategy	Engage expert for development of certification scheme for RAC sector	20,000	Training servicing technicians in good servicing practices and safe handling of low-GWP refrigeration technologies	25,000	45,000
	Conduct stakeholder consultations on formulation of effective RAC certification scheme	10,000	Upskilling of female RAC technicians and assist them to undergo the certification process	7,000	17,000
	Build capacity of key stakeholders involved in the certification process	30,000	Technology demonstration for replacing commercial and industrial HFC equipment with low-GWP technologies	30,000	60,000
	Update national codes of conduct for RAC servicing technicians and revision of the national RAC training curriculum (national expert will be recruited)	10,000	Awareness-raising activities on the enforcement of MEPS and labelling of equipment	6,000	16,000
	Conduct 10 training sessions for RAC technicians on good servicing practices	70,000	Good servicing practices for MAC technicians	11,500	81,500
	Strengthening of the RAC association and RAC training institutes	20,000	Awareness-raising for end-users	13,000	33,000
	Conduct targeted awareness to end-users about the need to move away from HCFCs and the introduction of new technologies such as HFCs and natural refrigerants	40,000			40,000
Technical assistance on business model for refrigerant recovery and reclaim infrastructure	Technical assistance on business model for refrigerant recovery and reclaim infrastructure	20,000			20,000
	Procurement and distribution of complementary tools and equipment for industry and technical colleges	170,000			170,000
Project coordination, monitoring, and reporting		50,000	Project coordination, monitoring, and reporting	16,000	66,000
Total HPMP		**540,000**	**Total KIP**	**145,000**	**685,000**