



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/63/52
8 March 2011



ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixty-third Meeting
Montreal, 4-8 April 2011

PROJECT PROPOSAL: SWAZILAND

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, first tranche)

UNDP/UNEP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Swaziland

(I) PROJECT TITLE	AGENCY
HCFC phase-out management plan (stage I, first tranche)	UNDP, UNEP (lead)

(II) LATEST ARTICLE 7 DATA	Year: 2009	9.2 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2009	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC123									
HCFC124									
HCFC141b									
HCFC141b in Imported Preblended Polyol		7.3							7.3
HCFC142b									
HCFC22					1.8				1.8

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline (estimate):	9.4	Starting point for sustained aggregate reductions:	9.4
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	0.0	Remaining:	1.13

(V) BUSINESS PLAN		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	7.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.66
	Funding (US \$)	1,991,000	0	0	0	0	0	0	0	0	0	1,991,000
UNEP	ODS phase-out (ODP tonnes)	0.20		0.10			0.10		0.21		0.0	0.61
	Funding (US \$)	75,000		30,000			55,000		30,000		20,000	210,000

(VI) PROJECT DATA			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits (estimate)			n/a	n/a	9.4	9.4	8.5	8.5	8.5	8.5	8.5	6.1	
Maximum allowable consumption (ODP tonnes)			n/a	n/a	9.4	9.4	1.4	1.4	1.3	1.3	1.3	1.1	
Project requested principle(US\$)	Costs in UNDP	Project costs	TBD										TBD
		Support costs	TBD										TBD
	Costs in UNEP	Project costs	75,000		55,000			50,000			30,000		210,000
		Support costs	9,750		7,150			6,500			3,900		27,300
Total project costs requested in principle (US \$)			TBD	0	55,000	0	0	50,000	0	0	30,000	0	TBD
Total support costs requested in principle (US \$)			TBD	0	7,150	0	0	6,500	0	0	3,900	0	TBD
Total funds requested in principle (US \$)			TBD	0	62,150	0	0	56,500	0	0	33,900	0	TBD

(VII) Request for funding for the first tranche (2011)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNDP	[US \$667,948] or [US \$913,532]	[US \$50,096] or [US \$68,515]
UNEP	75,000	9,750
Funding request:	Approval of funding for the first tranche (2011) as indicated above	
Secretariat's recommendation:	Individual consideration	

PROJECT DESCRIPTION

1. On behalf of the Government of Swaziland UNEP as the lead implementing agency, has submitted to the 63rd Meeting of the Executive Committee stage I of the HCFC phase-out management plan (HPMP) at a total cost of US \$2,062,845 plus agency support costs of US \$166,263 (i.e., US \$210,000 and agency support costs of US \$27,300 for UNEP, and US \$1,852,845 and agency support costs of US \$138,963 for UNDP), as originally submitted. Implementation of the activities proposed in Stage I of the HPMP will result in the phase-out of 8.32 ODP tonnes of HCFCs, comprising 7.66 ODP tonnes (69.63 metric tonnes (mt)) of HCFC-141b and 0.66 ODP tonnes (12 mt) of HCFC-22 used in the refrigeration servicing sector. It covers the 10 per cent reduction by 2015 and 35 per cent reduction in consumption by 2020.

2. The first tranche for stage I being requested at this meeting amounts to US \$75,000 plus agency support costs of US \$9,750 for UNEP and US \$1,852,845 plus agency support costs of US \$138,963 for UNDP, as originally submitted.

Background

3. Swaziland, with a total population of about 1.2 million inhabitants, has ratified all the amendments to the Montreal Protocol.

ODS regulations

4. The ODS regulations, in existence since 2003, are part of the Environment Management Act (2002) of Swaziland, and regulate imports and exports of ODS and ODS-based equipment through a licensing system that also covers HCFCs. The quota system for HCFCs will be operational prior to the freeze on consumption in 2013. The regulations are in conformity with the ODS regulations of the Common Market for Eastern and Southern Africa (COMESA), which monitor HCFC imports and restrict visa issuance for importing HCFC equipment. Swaziland also belongs to the Southern African Customs Union (SACU), which promotes environmental protection among its members. The Swaziland Environment Authority (SEA) is the coordinating institution for implementation of Montreal Protocol activities and provides the logistical and enforcement mechanisms for the regulations.

5. The National Ozone Committee is an advisory body to the Ozone Unit and comprises key stakeholders involved in the implementation of ODS phase-out activities; it assists the Ozone Unit in the collection of ODS consumption data, raises awareness among its members on the effects of ODS on human health and the environment, strengthens the capacity of the refrigeration sector to reduce consumption and emission of ODS, and participates in the implementation of policies, strategies and projects related to the Montreal Protocol.

HCFC consumption and sector distribution

6. HCFC-22 and HCFC-141b are the two HCFCs imported into the country. Small amounts of blends with HCFC-22 and HCFC-142b are also imported, namely R-406A, R-408A and R-409A containing 0.35 mt tonnes of HCFCs. According to the survey conducted for the preparation of the HPMP, HCFC consumption increased from 1.29 to 9.54 ODP tonnes between 2005 and 2009, as shown in Table 1. HCFC-22 is used for servicing unitary and split air-conditioning systems, in commercial refrigeration and food-processing facilities, and in some industrial applications. The major increase was associated with HCFC-141b used as a foam blowing agent by one enterprise. It is to be noted that the Government of Swaziland reported the HCFC-141b contained in imported polyols as consumption for the first time in 2009 (this is the main reason for the HCFC consumption data discrepancy between the amounts reported in the HPMP and those under Article 7 of the Montreal Protocol).

Table 1. HCFC consumption in Swaziland (2005-2009)

Year	Data from the survey HPMP			Article 7 data (ODP tonnes)
	HCFC-22	HCFC-141b	Total	Article 7 data
Metric tonnes				
2005	23.45	-	23.45	40.91
2006	26.18	44.45	70.64	9.09
2007	29.09	48.64	77.73	50.91
2008	31.64	62.55	94.18	30.00
2009	34.18	69.64	103.82	97.64
ODP tonnes				
2005	1.29	-	1.29	4.50
2006	1.44	4.89	6.33	1.00
2007	1.60	5.35	6.95	5.60
2008	1.74	6.88	8.62	3.30
2009	1.88	7.66	9.54	9.20

7. The sector distribution of HCFCs in Swaziland in 2009 is presented in Table 2. HCFC-22 is mainly used for servicing commercial and industrial refrigeration equipment (over 85 per cent of total HCFC-22 consumption) used in hotels, supermarkets, hospitals and other institutions, food handling and processing facilities, and offices.

Table 2. Sector distribution of HCFC consumption in Swaziland (2009)

Application	Metric tonnes (mt)	ODP tonnes
Refrigeration servicing (HCFC-22)		
Domestic refrigeration and air-conditioning systems	4.09	0.22
Commercial/industrial refrigeration	30.01	1.65
Subtotal refrigeration servicing	34.10	1.87
Foam sector (HCFC-141b)		
Palfridge company	69.62	7.66
Total consumption	103.72	9.53

8. The 2011-2020 forecasted HCFC-22 consumption in Swaziland is presented in Table 3.

Table 3. 2011-2020 forecasted HCFC consumption

Years	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Metric tonnes										
Unconstrained	39.80	43.00	46.40	50.10	54.10	58.40	63.10	68.20	73.60	79.50
Constrained	36.80	36.80	35.50	35.50	31.90	31.90	31.90	31.90	31.90	23.10
ODP tonnes										
Unconstrained	2.19	2.37	2.55	2.76	2.98	3.21	3.47	3.75	4.05	4.37
Constrained	2.02	2.02	1.95	1.95	1.75	1.75	1.75	1.75	1.75	1.27

9. The largest HCFC consumer in the country is Palfridge, Ltd., with 98 per cent local ownership. The company is the only manufacturer of domestic refrigerators and freezers and commercial refrigerators. In the mid 1990s, the company converted its foam operation from CFC-11 to HCFC-141b and its refrigerant from CFC-12 to HFC-134a with its own resources. The chemicals for the polyurethane insulation foam containing HCFC-141b are supplied by Bayer Material Science in South Africa and stored in 30-tonne bulk tanks at the company.

10. The current prices of HCFCs and alternative refrigerants per kilogram in the country are: US \$4.50 for HCFC-22, US \$8.50 for HFC-134a; US \$12.12 for R-404A; US \$10.70 for R-290

(propane); and US \$7.00 for R-600A (isobutane). Currently, hydrocarbon-based refrigerants are mainly used at Palfridge manufacturing plant and for servicing refrigeration equipment.

HCFC phase-out strategy

11. The objective of the HPMP for Swaziland is to meet all of the Montreal Protocol's HCFC control targets on time. The HCFC's overarching strategy developed by the Government is based on building national capacity to achieve phase-out, strengthening ODS regulations, and implementing economic instruments and incentives. Specific activities addressing phase-out of HCFC-141b used in the manufacturing sector and HCFC-22 used for servicing refrigeration equipment will be implemented during stage I of the HPMP, as shown in Table 4. The administrative structure established during the implementation of the TPMP will continue to be used during the implementation of the HPMP.

Table 4. Proposed activities of the HPMP for Swaziland

Activity	Stage
Enhancement of regulatory framework, capacity building and awareness	Overall plan
Promotion of the adoption of the alternatives	Overall plan
Awareness campaigns	Overall plan
Retrofit and recovery activities	Overall plan
Monitoring and management of the HPMP and reporting	Overall plan
Promulgation of ODS policy and regulations	First stage
Training for customs officers; strengthening customs training schools	First stage
Training for refrigeration technicians and upgrading of training schools	First stage
Conversion of Palfridge company	First stage

12. The Government of Swaziland, with the assistance of UNEP, UNDP and relevant national bodies, will undertake a comprehensive analysis of potential financial incentives and opportunities for additional funding (co-financing mechanism) to maximize environmental benefits from the HPMP, including climate benefits.

Specific phase-out activities and their costs

13. In line with the overarching strategy, the Government is proposing to implement the following activities in the refrigeration servicing sector at a total cost of US \$210,000:

- (a) Promulgation of ODS policy and amended regulations (US \$30,000), to promote compliance of ODS regulations and policy framework through awareness-raising, advocacy and capacity-building;
- (b) Training of 100 customs and other law-enforcement officers and strengthening customs training schools through capacity-building of the trainers and provision of training materials (US \$60,000);
- (c) Strengthening of refrigeration associations and technical colleges, and training of 200 refrigeration technicians in good refrigeration practices and retrofitting techniques, as well as awareness-raising about the adoption of alternative technologies with zero ODP, high energy efficiency and low global warming potential (GWP) (US \$75,000);
- (d) Project coordination, monitoring and evaluation (US \$45,000).

14. In the manufacturing sector, the Government is proposing the conversion of Palfridge, the domestic and commercial refrigeration manufacturing plant, from HCFC-141b to cyclopentane blowing agent. The conversion involves: installing a pentane storage system (including tank, pumps and pipes);

installing a premixing station with buffer tank; retrofitting the four foam dispensers in the baseline; installing safety-related equipment and systems (process exhaust system, gas sensing and alarm system, electrical grounding); trials training, and safety audits. The total capital cost for the conversion has been estimated at US \$1,702,162, and operating costs have been estimated at US \$150,684 (after deducting two per cent foreign ownership). Implementation of the project will result in the phase-out of 69.64 mt (7.66 ODP tonnes) of HCFC-141b, representing the total consumption of this substance in the country (cost-effectiveness of US \$26.62/kg). The project will be implemented in 30 months.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

15. The Secretariat reviewed the HPMP for Swaziland in the context of the guidelines for the preparation of HPMPs (decision 54/39), the criteria for funding HCFC phase-out in the consumption sector agreed at the 60th Meeting (decision 60/44), subsequent decisions on HPMPs made at the 62nd Meeting and the 2011-2014 business plan of the Multilateral Fund.

Starting point for aggregate reduction in HCFC consumption

16. The Government of Swaziland agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the average level of actual reported consumption in 2009 (9.2 ODP tonnes) and estimated consumption in 2010 (9.6 ODP tonnes), resulting in an average of 9.4 ODP tonnes. The business plan indicated a baseline of 9.6 ODP tonnes.

17. Noting the difference between the HCFC data reported under Article 7 and that gathered in the survey used for the preparation of the HPMP, UNEP indicated that an official request will be sent by the Ozone Officer to the Ozone Secretariat to adjust the 2005-2009 reported Article 7 data as per the data reported under the HPMP. In further consultations on this issue, the Ozone Secretariat informed the Fund Secretariat that since HCFC consumption for 2009 is used to calculate the baseline for compliance for Article 5 parties, any revision to the reported 2009 data should follow the methodology for revision of baseline data adopted by the Parties to the Montreal Protocol at their 15th Meeting (decision XV/19).

Accelerated phase-out of HCFCs

18. In 2009, the Government of Swaziland reported for the first time the amount of HCFC-141b contained in imported pre-blended polyols (i.e., 7.66 ODP tonnes) under Article 7 of the Montreal Protocol. Accordingly, the estimated baseline increased to 9.40 ODP tonnes, instead of 1.95 ODP tonnes if the HCFC-141b consumption in imported pre-blended polyols were not taken into account in the calculation. During stage I of the HPMP, the Government is proposing to convert the Palfridge manufacturing plant, resulting in the phase-out of 69.63 mt (7.66 ODP tonnes) of HCFC-141b (by the end of 2013), and to address up to 35 per cent of HCFC-22 consumption used for servicing refrigeration systems by 2020. Implementation of these activities will result in the phase-out of 8.32 ODP tonnes, representing almost 90 per cent of the estimated HCFC baseline for compliance. If only the project for the phase-out of HCFC-141b was to be approved, the activities proposed in the HPMP to address the HCFC consumption in the refrigeration servicing sector could not be implemented. Although the country will not be in non-compliance (given that the HCFC consumption in the manufacturing sector represents 80 per cent of the estimated baseline), lack of funding to address the refrigeration servicing sector would substantially increase the demand for HCFC-22 up to 79.5 mt (4.37 ODP tonnes) by 2020 as shown in Table 3 above. Furthermore, the institutional capacity established during the implementation of the refrigerant management plan (RMP) and the terminal phases-out management plan (TPMP) might be lost.

Technical and cost-related issues associated with the servicing sector

19. Noting that the HPMP proposes to impose a quota system and additional duties on imports of HCFC refrigerants, and to waive duty on non-HCFC refrigerants and technologies, a clarification was sought on whether the Government has undertaken a cost/benefit analysis of the imposition of additional duties on HCFC-based refrigerants and on the introduction of high energy-efficiency refrigeration equipment under the local climatic conditions in the country. UNEP indicated that the Government has not yet undertaken such analysis; however, the process is underway to identify a suitable national expert for such a study. Furthermore, during implementation of stage I of the HPMP, a stakeholders' workshop will be conducted to discuss the issue of imposing additional duties on HCFCs. However, the focus will be on reducing HCFC consumption by improving servicing and maintenance practices for refrigeration equipment, and effectively enforcing ODS regulations.

20. UNEP indicated that the lessons learnt during the implementation of the refrigerant management plan (RMP) update and the terminal phase-out management plan (TPMP) projects in Swaziland, including the need for a sustainable approach in the long term, will be taken into consideration during the implementation of training programmes for customs officers and refrigeration technicians proposed for stage I of the HPMP. Furthermore, a National Steering Committee will be established to advise on the implementation of all activities in coordination with the project monitoring unit. The training programmes will make use of previously trained trainers, and the Government will ensure that the training modules are incorporated into the curricula of training schools.

21. Upon a suggestion to strengthen the training programme for refrigeration technicians and taking into account that the total consumption of HCFC-22 in the country is for servicing refrigeration equipment, UNEP redistributed the funding available under the HPMP as follows:

- (a) Promulgation of ODS policy and regulations (US \$10,000);
- (b) Training of customs and law enforcement officers (US \$60,000);
- (c) Strengthening of refrigeration association and technical colleges and training of technicians (US \$110,000); and
- (d) Project coordination, monitoring and evaluation (US \$30,000).

Issues related to the conversion of Palfridge manufacturing plant

22. The Secretariat and UNDP discussed technical and cost-related issues linked to the conversion of the Palfridge manufacturing plant. Given the project's cost-effectiveness of US \$26.62/kg, as compared with the cost-effectiveness threshold of US \$9.79/kg, a clarification was requested on whether options had been considered to reduce the total cost of the project. More specifically, the Secretariat asked whether the use of hydrocarbon-based polyol systems (rather than pre-mixing *in situ*), or the use of methyl formate pre-blended systems (from South Africa) particularly for manufacturing commercial refrigerators (and possibly domestic refrigerators if foam density is not an issue) had been considered. UNDP indicated that the selection of cyclopentane technology was based on a discussion with main stakeholders in Swaziland. There are no systems houses in South Africa that could provide pre-blended, high concentration cyclopentane formulations for Palfridge. Furthermore, after discussing the feasibility of methyl formate as an alternative it was concluded that this was still a premature technology. All major polyurethane chemical companies (i.e., BASF, DOW, Bayer Chemical Science and Huntsman) have developed polyurethane systems based on pentane derivatives as foam blowing agents. Presently, the major chemical suppliers active in Swaziland do not support directly the use of a methyl formate formulation.

23. Subsequent to the discussion on technical and cost issues related to retrofitting the foam dispensers and the moulds and fixtures; heating ventilation and exhaust and safety-related systems; civil works, and the exclusion of density increase in the calculation of the operating costs, the total cost of the project was adjusted to US \$932,176, with a cost-effectiveness value of US \$13.32/kg (or US \$913,532 after deducting 2 per cent for foreign ownership). However, the total level of eligible funding based on the cost-effectiveness threshold would be US \$681,580 (or US \$667,948 after deducting 2 per cent of foreign ownership). UNDP raised the issue of the applicability of the cost-effectiveness thresholds for low-volume consuming (LVC) countries. Reference were made to the decision on LVC countries adopted by the Executive Committee at its 16th Meeting through which US \$6,630,000 was reserved exclusively for allocation to projects from LVC countries, in addition to any funds received as a result of approval of projects from LVC countries that qualified under the cost-effectiveness thresholds adopted at that Meeting. Reference was also made to decision VII/25 of the 7th Meeting of the Parties through which, *inter alia*, approval of projects in LVC and VLVC consuming countries should be based upon a more appropriate project-appraisal approach reflecting the particular circumstances encountered by these countries. The Secretariat has raised this issue in the document on the “Overview of issues identified during project review” (UNEP/OzL.Pro/ExCom/63/16).

Impact on the climate

24. A calculation of the impact on the climate of HCFC consumption through the foam project in Swaziland based only on the GWP values of the blowing agents and their level of consumption before and after conversion is as follows: 69.6 mt of HCFC-141b will be phased out, 43.1 tonnes of cyclopentane will be phased in, and 48,547 tonnes of CO₂ that would have been emitted into the atmosphere will have been avoided (Table 5).

Table 5. Calculation of the impact on the climate

Substance	GWP	Tonnes/year	CO ₂ -eq (tonnes/year)
Before conversion			
Before conversion			
HCFC-141b	713	69.6	49,625
After conversion			
Cyclopentane	25	43.1	1,078
Net impact			-48,547

25. Furthermore, the proposed technical assistance activities in the HPMP, which include the introduction of better servicing practices and enforcement of HCFC import controls, will reduce the amount of HCFC-22 used for refrigeration servicing. Each kilogram (kg) of HCFC-22 not emitted due to better refrigeration practices results in the savings of approximately 1.8 CO₂-equivalent tonnes saved. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Swaziland to improve servicing practices and reduce associated refrigerant emissions indicate that it is likely that the country will achieve the reduction of 1,095.6 CO₂-equivalent tonnes in emissions to the atmosphere as estimated in the 2011-2014 business plan. However, at this time, the Secretariat is not in a position to quantitatively estimate the impact on the climate. The impact might be established through an assessment of implementation reports by, *inter alia*, comparing the levels of refrigerants used annually from the commencement of the implementation of the HPMP, the reported amounts of refrigerants being recovered and recycled, the number of technicians trained and the HCFC-22 based equipment being retrofitted.

Co-financing

26. In response to decision 54/39(h) on potential financial incentives and opportunities for additional resources to maximize the environmental benefits from HPMPs pursuant to paragraph 11(b) of decision XIX/6 of the 19th Meeting of the Parties, UNEP explained that in addition to the funding

provided by the Multilateral Fund, the Government will mobilize additional funding from the owners of refrigeration equipment and other stakeholders to ensure that the phase-out of HCFCs will also contribute to energy efficiency and climate benefit.

2011-2014 business plan of the Multilateral Fund

27. UNEP and UNDP are requesting US \$1,123,532 plus support costs for implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$1,128,947 including support cost is below the total amount in the business plan (US \$2,201,000). Furthermore, based on the estimated HCFC baseline consumption in the servicing sector of 1.9 ODP tonnes, Swaziland's allocation up to the 2020 phase-out should be US \$210,000 in line with decision 60/44.

Draft Agreement

28. A draft Agreement between the Government of Swaziland and the Executive Committee for HCFC phase-out is contained in Annex I of the present document. The level of funding would be adjusted in light of the decision that the Executive Committee might wish to take in regard to the funding for the conversion of the Palfridge manufacturing plant (as explained above).

RECOMMENDATION

29. Depending upon the resolution of the policy issue raised under the "Overview of issues identified during project review" (UNEP/OzL.Pro/ExCom/63/16), the Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Swaziland for the period 2011 to 2020, at the amount of [US \$ 1,219,347] or [US \$955,344], comprising of US \$210,000 and agency support costs of US \$27,300 for UNEP, and [US \$667,948 and agency support costs of US \$50,096 for UNDP] or [US \$913,532 and agency support costs of US \$68,515 for UNDP], on the understanding that:
 - (i) US \$210,000 was provided to address HCFC consumption in the refrigeration servicing sector to reach up to and including the 35 per cent reduction in 2020 in line with decision 60/44; and
 - (ii) [US \$667,948] or [US \$913,532] was provided for the investment component for the phase-out of 7.66 ODP tonnes of HCFC-141b used in the foam sector;
- (b) Noting that the Government of Swaziland agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the estimated baseline of 9.40 ODP tonnes calculated using actual consumption reported in 2009 and estimated 2010 consumption;
- (c) Approving the draft Agreement between the Government of Swaziland and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document;
- (d) Requesting the Secretariat, once the baseline data were known, to update Appendix 2-A to the draft Agreement to include the figures for maximum allowable consumption, and to notify the Executive Committee of the resulting levels of maximum allowable consumption and of a potential related impact on the eligible funding level with any adjustments needed being made when the next tranche was submitted; and

- (e) Approving the first tranche of stage I of the HPMP for Swaziland, and the corresponding implementation plan, at the amount of [US \$1,066,797] or [US \$802,794], comprising of US \$75,000 and agency support costs of US \$9,750 for UNEP and [US \$667,948 and agency support costs of US \$50,096 for UNDP] or [US \$913,532 and agency support costs of US \$68,515 for UNDP].

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF SWAZILAND AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS

1. This Agreement represents the understanding of the Government of Swaziland (the “Country”) and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A (“The Substances”) to a sustained level of 1.13 ODP tonnes prior to 1 January 2020 in compliance with Montreal Protocol schedules, with the understanding that this figure is to be revised one single time in 2011, when the baseline consumption for compliance would be established based on Article 7 data, with the funding to be adjusted accordingly, as per decision 60/44.
2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances which exceeds the level defined in row 1.2 of Appendix 2-A (“maximum allowable total consumption of Annex C, Group I Substances”; the Target) as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances which exceeds the level defined in rows 4.1.3 and 4.2.3 (remaining eligible consumption).
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees in principle to provide the funding set out in row 3.1 of Appendix 2-A (“Targets and Funding”) to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (“Funding Approval Schedule”).
4. The Country will accept independent verification, to be commissioned by the relevant bilateral or implementing agency, of achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) of this Agreement as described in sub-paragraph 5(b) of this Agreement.
5. The Executive Committee will not provide the Funding in accordance with the Funding Approval Schedule unless the Country satisfies the following conditions at least 60 days prior to the applicable Executive Committee meeting set out in the Funding Approval Schedule:
 - (a) That the Country has met the Targets for all relevant years. Relevant years are all years since the year in which the hydrochlorofluorocarbons phase-out management plan (HPMP) was approved. Exempt are years for which no obligation for reporting of country programme data exists at the date of the Executive Committee Meeting at which the funding request is being presented;
 - (b) That the meeting of these Targets has been independently verified, except if the Executive Committee decided that such verification would not be required;

- (c) That the Country had submitted tranche implementation reports in the form of Appendix 4-A (“Format of Tranche Implementation Reports and Plans”) covering each previous calendar year, that it had achieved a significant level of implementation of activities initiated with previously approved tranches, and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and
- (d) That the Country has submitted and received approval from the Executive Committee for a tranche implementation plan in the form of Appendix 4-A (“Format of Tranche Implementation Reports and Plans”) covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (“Monitoring Institutions and Roles”) will monitor and report on implementation of the activities in the previous tranche implementation plan in accordance with their roles and responsibilities set out in Appendix 5-A. This monitoring will also be subject to independent verification as described in sub-paragraph 5(b).

7. The Executive Committee agrees that the Country may have the flexibility to reallocate the approved funds, or part of the funds, according to the evolving circumstances to achieve the smoothest phase-down and phase-out of the Substances specified in Appendix 1-A. Reallocations categorized as major changes must be documented in advance in a Tranche Implementation Plan and approved by the Executive Committee as described in sub-paragraph 5(d). Major changes would relate to reallocations affecting in total 30 per cent or more of the funding of the last approved tranche, issues potentially concerning the rules and policies of the Multilateral Fund, or changes which would modify any clause of this Agreement. Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the Tranche Implementation Report. Any remaining funds will be returned to the Multilateral Fund upon closure of the last tranche of the plan.

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sub-sector, in particular:

- (a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and
- (b) The Country and the bilateral and implementing agencies involved will take full account of the requirements of decisions 41/100 and 49/6 during the implementation of the plan.

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNEP has agreed to be the lead implementing agency (the “Lead IA”) and UNDP has agreed to be cooperating implementing agency (the “Cooperating IA”) under the lead of the Lead IA in respect of the Country’s activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of any of the agencies taking part in this Agreement.

10. The Lead IA will be responsible for carrying out the activities of the plan as detailed in the first submission of the HPMP with the changes approved as part of the subsequent tranche submissions, including but not limited to independent verification as per sub-paragraph 5(b). This responsibility includes the necessity to co-ordinate with the Cooperating IA to ensure appropriate timing and sequence of activities in the implementation. The Cooperating IA will support the Lead IA by implementing the

activities listed in Appendix 6-B under the overall co-ordination of the Lead IA. The Lead IA and Cooperating IA have entered into a formal agreement regarding planning, reporting and responsibilities under this Agreement to facilitate a co-ordinated implementation of the Plan, including regular co-ordination meetings. The Executive Committee agrees; in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amounts set out in Appendix 7-A in respect of each ODP tonne of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement, and take related decisions. Once these decisions are taken, this specific case will not be an impediment for future tranches as per paragraph 5.

12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decision that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee, the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to information necessary to verify compliance with this Agreement.

14. The completion of the HPMP and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption has been specified in Appendix 2-A. Should at that time activities be still outstanding which were foreseen in the Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per Appendix 4-A (a), (b), (d) and (e) continue until the time of the completion if not specified by the Executive Committee otherwise.

15. All of the agreements set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	1.74
HCFC-141b	C	I	7.66
TOTAL			9.40

APPENDIX 2-A: THE TARGETS, AND FUNDING

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	9.40	9.40	8.46	8.46	8.46	8.46	8.46	6.11	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	n/a	9.40	9.40	1.44	1.44	1.33	1.33	1.33	1.13	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	75,000		55,000			50,000			30,000		210,000
2.2	Support costs for Lead IA (US \$)	9,750		7,150			6,500			3,900		27,300
2.3	Cooperating IA (UNDP) agreed funding (US \$)	TBD										TBD
2.4	Support costs for Cooperating IA (US \$)	TBD										TBD
3.1	Total agreed funding (US \$)	TBD		55,000			50,000			30,000		TBD
3.2	Total support costs (US \$)	TBD		7,150			6,500			3,900		TBD
3.3	Total agreed costs (US \$)	TBD		62,150			56,500			33,900		TBD
4.1.1	Total phase-out of HCFC-22 and under this agreement (ODP tonnes)											0.61
4.1.2	Phase-out of HCFC-22 in previously approved projects (ODP tonnes)											0.00
4.1.3	Remaining eligible consumption for HCFC-22											1.13
4.2.1	Total phase-out of HCFC-141 b under this agreement (ODP tonnes)											7.66
4.2.2	Phase-out of HCFC-141 b in previously approved projects (ODP tonnes)											0.00
4.2.3	Remaining eligible consumption for HCFC-141 b											0.00

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval not earlier than the second meeting of the year specified in Appendix 2-A.

APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORTS AND PLANS

1. The submission of the Tranche Implementation Report and Plan will consist of five parts:
 - (a) A narrative report regarding the progress in the previous tranche, reflecting on the situation of the Country in regard to phase out of the Substances, how the different activities contribute to it and how they relate to each other. The report should further highlight successes, experiences and challenges related to the different activities included

in the Plan, reflecting on changes in the circumstances in the Country, and providing other relevant information. The report should also include information about and justification for any changes vis-à-vis the previously submitted tranche plan, such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes. The narrative report will cover all relevant years specified in sub-paragraph 5(a) of the Agreement and can in addition also include information about activities in the current year;

- (b) A verification report of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;
- (c) A written description of the activities to be undertaken in the next tranche, highlighting their interdependence, and taking into account experiences made and progress achieved in the implementation of earlier tranches. The description should also include a reference to the overall Plan and progress achieved, as well as any possible changes to the overall plan foreseen. The description should cover the years specified in sub-paragraph 5(d) of the Agreement. The description should also specify and explain any revisions to the overall plan which were found to be necessary;
- (d) A set of quantitative information for the report and plan, submitted into a database. As per the relevant decisions of the Executive Committee in respect to the format required, the data should be submitted online. This quantitative information, to be submitted by calendar year with each tranche request, will be amending the narratives and description for the report (see sub-paragraph 1(a) above) and the plan (see sub-paragraph 1(c) above), and will cover the same time periods and activities; it will also capture the quantitative information regarding any necessary revisions of the overall plan as per sub-paragraph 1(c) above. While the quantitative information is required only for previous and future years, the format will include the option to submit in addition information regarding the current year if desired by the Country and the Lead IA; and
- (e) An Executive Summary of about five paragraphs, summarizing the information of above sub-paragraphs 1(a) to 1(d).

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. All the monitoring activities will be coordinated and managed through the National Ozone Unit, which is included within this HPMP.
2. The Lead IA will have a particularly prominent role in the monitoring arrangements because of its mandate to monitor ODS imports, whose records will be used as a crosschecking reference in all the monitoring programmes for the different projects within the HPMP. This organization, along with the cooperating IA will also undertake the challenging task of monitoring illegal ODS imports and exports with advisements made to the appropriate national agencies through the National Ozone Office.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities. These can be specified in the project document further, but include at least the following:

- (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's phase-out plan;
- (b) Assisting the Country in preparation of the Tranche Implementation Plans and subsequent reports as per Appendix 4-A;
- (c) Providing verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the Tranche Implementation Plan consistent with Appendix 4-A;
- (d) Ensuring that the experiences and progress is reflected in updates of the overall Plan and in future Tranche Implementation Plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
- (e) Fulfilling the reporting requirements for the tranches and the overall Plan as specified in Appendix 4-A as well as project completion reports for submission to the Executive Committee. The reporting requirements include the reporting about activities undertaken by the Cooperating IA;
- (f) Ensuring that appropriate independent technical experts carry out the technical reviews;
- (g) Carrying out required supervision missions;
- (h) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;
- (i) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
- (j) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country and the Cooperating IAs, the allocation of the reductions to the different budget items and to the funding of each implementing or bilateral agency involved;
- (k) Ensuring that disbursements made to the Country are based on the use of the indicators; and
- (l) Providing assistance with policy, management and technical support when required.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent organization to carry out the verification of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 1(b) of Appendix 4-A.

APPENDIX 6-B: ROLE OF COOPERATING IMPLEMENTING AGENCY

1. The Cooperating IA will be responsible for a range of activities. These activities can be specified in the respective project document further, but include at least the following:

- (a) Providing policy development assistance when required;
- (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA to ensure a co-ordinated sequence in the activities; and
- (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A.

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$180 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met.
