



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/77/64
25 October 2016

ORIGINAL: ENGLISH



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

PROJECT PROPOSAL: SWAZILAND

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

Phase-out

- HCFC phase-out management plan (stage I, third tranche) UNEP and UNDP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Swaziland

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

| | | |
|--|------------|-----------------|
| (II) LATEST ARTICLE 7 DATA (Annex C Group I) | Year: 2015 | 1.0 (ODP tonne) |
|--|------------|-----------------|

| (III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes) | | | | | | | | Year: 2015 | |
|---|---------|------|---------------|---------------|-----------|---------------|---------|--------------------------|-----|
| Chemical | Aerosol | Foam | Fire fighting | Refrigeration | Solvent | Process agent | Lab use | Total sector consumption | |
| | | | | Manufacturing | Servicing | | | | |
| HCFC-22 | | | | | 1.0 | | | | 1.0 |

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

| (V) BUSINESS PLAN | | 2016 | 2017 | 2018 | 2019 | Total |
|-------------------|----------------------------|--------|------|------|--------|--------|
| UNEP | ODS phase-out (ODP tonnes) | 0.4 | 0 | 0 | 0.2 | 0.6 |
| | Funding (US \$) | 56,500 | 0 | 0 | 33,900 | 90,400 |

| (VI) PROJECT DATA | | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total | |
|---|---------------|---------------|---------|--------|--------|------|--------|--------|------|------|--------|---------|---------|
| Montreal Protocol consumption limits | | n/a | n/a | 7.3 | 7.3 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 4.8 | n/a | |
| Maximum allowable consumption (ODP tonnes) | | n/a | n/a | 7.3 | 7.3 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.1 | n/a | |
| Agreed funding (US\$) | UNDP | Project costs | 667,948 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 667,948 | |
| | | Support costs | 50,096 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50,096 | |
| | UNEP | Project costs | 75,000 | 0 | 55,000 | 0 | 0 | 50,000 | 0 | 0 | 30,000 | 0 | 210,000 |
| | | Support costs | 9,750 | 0 | 7,150 | 0 | 0 | 6,500 | 0 | 0 | 3,900 | 0 | 27,300 |
| Funds approved by ExCom (US\$) | Project costs | 742,948 | 0 | 55,000 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 797,948 | |
| | Support costs | 59,846 | 0 | 7,150 | 0 | 0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 66,996 | |
| Total funds requested for approval at this meeting (US\$) | Project costs | | | | | | 50,000 | | | | | 50,000 | |
| | Support costs | | | | | | 6,500 | | | | | 6,500 | |

| | |
|-------------------------------|------------------|
| Secretariat's recommendation: | Blanket approval |
|-------------------------------|------------------|

PROJECT DESCRIPTION

1. On behalf of the Government of Swaziland, UNEP as the lead implementing agency, has submitted to the 77th meeting a request for funding for the third tranche of stage I of the HCFC phase-out management plan (HPMP), at the amount of US \$50,000, plus agency support costs of US \$6,500 for UNEP¹ only. The submission includes a progress report on the implementation of the second tranche and the tranche implementation plan for 2017 to 2018.

Report on HCFC consumption

HCFC consumption

2. The Government of Swaziland reported a consumption of 1.02 ODP tonnes of HCFC in 2015 which is lower than the maximum allowable consumption of 1.53 ODP tonnes in the Agreement with the Executive Committee. The 2011-2015 HCFC consumption is shown in Table 1.

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

| HCFC | 2011 | 2012 | 2013 | 2014 | 2015 | Baseline |
|--|--------------|--------------|--------------|--------------|--------------|-------------|
| Metric tonnes (mt) | | | | | | |
| HCFC-141b | 19.82 | 22.18 | 0 | 0 | 0 | 50.4 |
| HCFC-22 | 17.45 | 23.64 | 21.45 | 26.73 | 18.55 | 31.4 |
| Subtotal (mt) | 37.27 | 45.82 | 21.45 | 26.73 | 18.55 | 81.7 |
| HCFC-141b in imported pre-blended polyols* | ** | ** | 32.82 | 2.36 | 0.00 | 22.2*** |
| ODP tonnes | | | | | | |
| HCFC-141b | 2.18 | 2.44 | 0 | 0 | 0 | 5.6 |
| HCFC-22 | 0.96 | 1.30 | 1.18 | 1.47 | 1.02 | 1.7 |
| Subtotal (ODP tonnes) | 3.14 | 3.74 | 1.18 | 1.47 | 1.02 | 7.3 |
| HCFC-141b in imported pre-blended polyols* | ** | ** | 3.61 | 0.26 | 0 | 2.44*** |

*CP implementation report data.

**The consumption of HCFC-141b contained in imported pre-blended polyols under the CP reports for 2011 and 2012 is reported as the consumption of HCFC-141b bulk under the Article 7 of the Montreal Protocol.

*** Average consumption between 2007 and 2009.

3. HCFC-141b contained in imported pre-blended polyol was consumed by one enterprise manufacturing domestic and commercial refrigeration equipment up to 2014. The conversion of the enterprise to cyclopentane was completed in 2015.

4. The HCFC-22 consumption in the country has decreased since the establishment of the HCFC baseline due to controls on consumption and the training for refrigeration and air-conditioning (RAC) equipment service technicians conducted so far. The consumption in 2012 and 2014 was higher as importers brought more HCFC-22 into the country prior to the freeze in 2013 and 10 per cent reduction in 2015.

Country programme (CP) implementation report

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

¹ As per the letter of 3 October 2016 from the Swaziland Environment Authority to UNEP.

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

Legal framework

6. Swaziland promulgated its ODS Regulations in 2003 which *inter alia* control imports and exports of ODS and ODS-based equipment, and provide for licensing and quota systems for all ODS importers. The ODS regulations amended in 2010-2011 have phase-out schedules for all the ODS and provide for the registration of all stakeholders dealing with ODS including refrigeration technicians and importers.

Palfridge project

7. Palfridge project was approved at the 63rd meeting for conversion of their foam manufacturing operations in production of domestic and commercial refrigeration equipment from HCFC-141b to cyclopentane. This project was completed in November 2015, which resulted in the phase-out of 5.6 ODP tonnes of HCFC-141b. Consumption of HCFC-141b for the year 2015 is nil and no quotas for HCFC-141b were issued for 2016.

Refrigeration servicing sector

8. The following activities were implemented:

- (a) Three training workshops for 40 customs officers on monitoring and enforcement of ODS policy and regulations were conducted. The Director of Customs Training Department reviewed and updated customs training curricula to incorporate ODS modules;
- (b) Two additional RAC sector training workshops were conducted for 74 technicians on good practices and safety in handling flammable refrigerants. Ten toolkits (e.g., portable recovery units, recycling kits, leak detectors and vacuum pumps) were purchased to strengthen the capacity of servicing centers for retrofits of HCFC-22-based RAC equipment and the reclamation of HCFC-22; and
- (c) Two workshops were organised for 30 decision makers which included members of Parliamentary Committee on Environment, Director from Ministry of Trade, Ministry of Agriculture, Ministry of Finance, representative from the University, Controller of Customs and committee members of the RAC Association to disseminate ODS regulation and promote the implementation and enforcement of the revised ODS regulations; and two importers' meetings were held for allocation of quotas, and HCFC reduction target awareness.

Project implementation and monitoring unit (PMU)

9. The Ozone Steering Committee comprising the NOU, representative of relevant government departments, industry, research institutions and vocational centres monitors the effectiveness of the projects to phase out HCFCs.

10. One consultant was recruited to assist the NOU in monitoring the implementation of all the HPMP activities including data collection.

Level of fund disbursement

11. As of September 2016, of the US \$797,948 so far approved, US \$767,920 had been disbursed (US \$100,000 for UNEP and US \$667,920 for UNDP). The balance of US \$30,028 will be disbursed in 2017 (Table 2).

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

| Agency | First tranche | | Second tranche | | Total approved | |
|------------------------------|----------------|----------------|----------------|---------------|----------------|----------------|
| | Approved | Disbursed | Approved | Disbursed | Approved | Disbursed |
| UNEP | 75,000 | 55,000 | 55,000 | 45,000 | 130,000 | 100,000 |
| UNDP | 667,948 | 667,920 | 0 | 0 | 667,948 | 667,920 |
| Total | 742,948 | 722,920 | 55,000 | 45,000 | 797,948 | 767,920 |
| Disbursement rate (%) | 97.3 | | 81.8 | | 96.0 | |

Implementation plan for the third tranche of the HPMP

12. The following activities will be implemented by UNEP:
- (a) Three workshops to train 45 customs officers on monitoring, control and identification of HCFC and HCFC-dependent equipment and purchase of two refrigerant identifiers (US \$20,000);
 - (b) Three additional workshops to train 60 refrigeration technicians on good practices and safety in handling refrigerants during installation, servicing and dismantling RAC equipment especially those handling flammable refrigerants; one workshop/seminar on technology innovations in the RAC sector in cooperation with the RAC Association for 60 technicians (US \$20,000); and
 - (c) Project management and monitoring of the implementation of the HPMP (US \$10,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION**COMMENTS**Progress report on the implementation of the second tranche of the HPMP*Legal framework*

13. The Government has established an import quota of 1.38 ODP tonnes for 2016, and allocated it to twenty importers.

Refrigeration servicing sector

14. UNEP clarified that the Government of Swaziland conducts training programmes which cover good servicing practices and sustainable adoption of alternative refrigerants to HCFCs.

15. Although retrofit of air-conditioning using flammable refrigerants is not encouraged in the country, training programmes for service technicians cover safety aspects for retrofit of HCFC-22 based equipment with flammable refrigerants so that in case such retrofits are undertaken, the service technicians are aware of safety aspects to be taken care of. Currently, the Government has not banned these retrofits, and is fully aware of the need to ensure safe operations and maintenance of RAC equipment using flammable refrigerants. Through awareness and training, the Government ensures that safeguards exist for safe operations and maintenance practices for service technicians who use flammable refrigerants.

Conclusion

16. Swaziland's HCFC consumption in 2015 of 1.02 ODP tonnes was 33 per cent lower than the target of 1.53 ODP tonnes for that year. This has been achieved through operational licensing and quota system of HCFC in place supported by the training of customs officers on enforcement and the technicians that have been trained in good service practices and the distribution of equipment that had strengthened the infrastructure of the technical institutions. The disbursement of funds approved under the second tranche amounts to 81.8 per cent of the approved funding.

RECOMMENDATION

17. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the second tranche of stage I of the HCFC phase-out management plan of (HPMP) for Swaziland; and further recommends blanket approval of the third tranche of stage I of the HPMP for Swaziland, and the corresponding 2017 – 2018 tranche implementation plan, with associated support costs at the funding level shown in the table below, on the understanding that if Swaziland were to decide to proceed with retrofits and associated servicing to flammable and toxic refrigerants in refrigeration and air-conditioning equipment originally designed for non-flammable substances, it would do so assuming all associated responsibilities and risks and only in accordance with the relevant standards and protocols:

| | Project Title | Project Funding (US \$) | Support Cost (US \$) | Implementing Agency |
|-----|---|------------------------------------|---------------------------------|--------------------------------|
| (a) | HCFC phase-out management plan (stage I, third tranche) | 50,000 | 6,500 | UNEP |