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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-second Meeting
Montreal, 3-7 December 2018

PROJECT PROPOSAL: BOTSWANA

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

Phase-out

- HCFC phase-out management plan (stage I, second tranche) UNEP and UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Botswana

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (Stage I)	UNEP (lead), UNIDO	75 th	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2017	8.58 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2017	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					8.58				8.58
HCFC-123									
HCFC-124									
HCFC-141b									
HCFC-142b									

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	11.00	Starting point for sustained aggregate reductions:	11.00
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	3.85	Remaining:	7.15

(V) BUSINESS PLAN		2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.62	0	0.38	1.00
	Funding (US \$)	101,700	0	62,150	163,850
UNIDO	ODS phase-out (ODP tonnes)	0.96	0	0	0.96
	Funding (US \$)	149,800	0	0	149,800

(VI) PROJECT DATA			2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			9.90	9.90	9.90	9.90	9.90	7.15	n/a
Maximum allowable consumption (ODP tonnes)			9.90	9.90	9.90	9.90	9.90	7.15	n/a
Agreed funding (US\$)	UNEP	Project costs	135,000	0	0	90,000	0	55,000	280,000
		Support costs	17,550	0	0	11,700	0	7,150	36,400
	UNIDO	Project costs	140,000	0	0	140,000	0	0	280,000
		Support costs	9,800	0	0	9,800	0	0	19,600
Funds approved by ExCom (US\$)									
			Project costs	275,000	0	0	0	0	275,000
			Support costs	27,350	0	0	0	0	27,350
Total funds requested for approval at this meeting (US\$)						230,000			230,000
			Project costs			230,000			230,000
			Support costs			21,500			21,500

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Botswana, UNEP as the lead implementing agency has submitted a request for funding for the second tranche of stage I of the HCFC phase-out management plan (HPMP), at a total cost of US \$251,500, consisting of US \$90,000 plus agency support costs of US \$11,700 for UNEP, and US \$140,000 plus agency support costs of US \$9,800 for UNIDO.¹ The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2015 to 2017, and the tranche implementation plan for 2018 to 2020.

Report on HCFC consumption

2. The Government of Botswana reported a consumption of 8.58 ODP tonnes of HCFCs in 2017, which is 22 per cent below the consumption baseline for compliance. The 2013-2017 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Botswana (2013-2017 Article 7 data)

HCFC	2013	2014	2015	2016	2017	Baseline
Metric tonnes						
HCFC-22	197.00	190.00	176.30	170.60	156.00	200.00
HCFC-141b	0.00	0.50	0.50	0.40	0.01	0.10
Total (mt)	197.00	190.50	176.80	171.00	156.01	200.10
ODP tonnes						
HCFC-22	10.84	10.45	9.70	9.38	8.58	11.00
HCFC-141b	0.00	0.06	0.06	0.05	0.00	0.01
Total (ODP tonnes)	10.84	10.51	9.75	9.43	8.58	11.00

3. The HCFC consumption in Botswana has been decreasing since 2013, due to the implementation of the licensing and quota system for HCFC import control; the activities in the refrigeration servicing sector; and awareness-raising activities, which have reduced the demand for HCFCs through promoting natural refrigerants and other viable HCFC-alternative technologies.

Country programme (CP) implementation report

4. The Government of Botswana reported HCFC sector consumption data under the 2017 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

Verification report

5. The verification report confirmed that the Government has been effectively implementing a licensing and quota system for HCFC imports and exports since 2015, and that the total consumption of HCFCs for 2017 was 8.58 ODP tonnes. The verification concluded that Botswana is in compliance with the targets set out in the Agreement between the Government and the Executive Committee.

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

Legal framework

6. The National Meteorological Services Act was revised in 2014 to support a licensing and quota system for the control of imports and exports of HCFCs and HCFC-based equipment. The Government also established an institutional framework and communication channels to involve stakeholders, including the national ozone committee, the national licensing committee and the national monitoring committee to

¹ As per the letter of 24 September 2018 from Botswana National Meteorology Services, the Ministry of Environment, Natural Resources, Conservation and Tourism of Botswana to the Chief Officer of the Fund Secretariat through UNEP.

manage the licensing and quota system for HCFC imports and to promote public awareness on the protection of the ozone layer and related climate benefits. The training curriculum for customs officers has been updated to include new obligations under the Montreal Protocol.

7. A mandatory technician certification programme endorsed by the ODS Regulation of 2014 is in place, which specifies that no technician shall repair or service equipment or products that contain ODS unless the technician has a permit issued under the Regulation. The Government of Botswana does not allow retrofitting HCFC-based equipment to flammable refrigerants.

8. The following activities were implemented:

- (a) Six training workshops at different border stations and a total of 615 customs officers trained on the Montreal Protocol, HCFC import control, the prevention of illegal trade and the use of refrigerant identifier; one joint border dialogue workshop organized, focusing on cooperation with Zimbabwe on addressing illegal trade;
- (b) Two training workshops and 75 technicians trained in good servicing practices, refrigerant recovery and reuse, and safety issues related to servicing refrigeration and air-conditioning equipment using low-GWP refrigerants;
- (c) Ten refrigerant identifiers and hand tools purchased and being delivered to Botswana; a list of small servicing equipment to be purchased finalized and the technical specifications being reviewed;
- (d) Awareness-raising activities to promote the use of low-GWP and energy-efficient technologies, and to advance the technician certification system through strengthening the Botswana refrigeration and air-conditioning association; and
- (e) Monitoring and data-collection to ensure effective implementation of activities under the HPMP.

Level of fund disbursement

9. As of September 2018, of the US \$275,000 approved for the first tranche (US \$135,000 for UNEP and US \$140,000 for UNIDO), US \$185,000 (67 per cent) had been disbursed (US \$135,000 for UNEP and US \$50,000 for UNIDO). The balance of US \$90,000 will be disbursed in 2019.

Implementation plan for the second tranche of the HPMP

10. The following activities will be implemented between December 2018 and December 2020:

- (a) Two workshops to train 200 customs officers and 20 environment inspectors in HCFC import control and prevention of illegal trade (UNEP) (US \$40,000);
- (b) Three workshops to train 90 servicing technicians in good servicing practices, servicing equipment with alternatives and safety issues related to the use of flammable refrigerants; continuous support for Botswana's refrigeration and air-conditioning association (UNEP) (US \$40,000);
- (c) Completion of the procurement of small servicing equipment for refrigerant recovery, reuse and reclamation for three centers of excellence referred to in paragraph 12(c) will be completed by March 2019 (funds from the first tranche);

- (d) Implementation of an end-user incentive programme in connection with the training of technicians in installation and servicing refrigeration and air-conditioning equipment using low-GWP refrigerants (UNIDO) (US \$140,000); and
- (e) Monitoring to ensure effective implementation of activities under the HPMP (UNEP) (US \$10,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

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

Legal framework

11. The Government of Botswana has issued HCFC import quotas for 2018 at 110 mt (6.05 ODP tonnes), which is lower than the Montreal Protocol control targets.

Refrigeration servicing sector

12. The Secretariat enquired about the details of the end-user incentive programme planned for the second tranche. UNEP clarified that the end-user incentive scheme will target sectors experiencing growth and those where low-GWP technologies already exist. The specific sectors are still to be determined; air-conditioning and commercial refrigeration are strong candidates. The project is expected to provide 20 to 40 per cent of the total costs of equipment and refrigerant with the remaining cost co-funded by end users. The end-user incentive scheme involves handling equipment using low-GWP technologies and is closely linked to training technicians in installation and servicing; it is therefore expected to further strengthen the training component.

13. The Secretariat enquired about the introduction of hydrocarbon (HC) refrigerants and the adoption of safety standards in Botswana. UNEP responded that the use of HC refrigerants in Botswana is currently limited to a small set of equipment including small supermarket fridges and some domestic fridges. The users, mainly public institutions and hotels, showed some degree of acceptance. There is no safety standard on the use of flammable refrigerants; technicians follow relevant international safety guidelines in servicing equipment. However, the NOU has initiated a dialogue with the Botswana Bureau of Standards for the development of such a standard. There is currently no implementation of retrofitting to HCs.

Conclusion

14. The Government of Botswana has established a licensing and quota system for the control of HCFC imports and exports and the system is being effectively enforced. Botswana has been in compliance with the control targets set in the Agreement between the Government and the Executive Committee. A mandatory educational certification system for technicians has been implemented through the refrigeration and air-conditioning association with the endorsement of the ODS Regulation of 2014; training has been provided to technicians to enable good servicing practices and the servicing of equipment using alternatives to HCFCs. The control of HCFC imports has been integrated into the training curriculum for customs officers, and refrigerant identifiers were also provided to facilitate the identification of chemicals. The disbursement rate has reached 67 per cent. The activities in the second tranche will further sustain the results so far achieved in stage I of the HPMP.

RECOMMENDATION

15. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the first tranche of stage I of the HCFC phase-out management plan (HPMP) for Botswana; and further recommends blanket approval of the second tranche of stage I of the HPMP for Botswana, and the corresponding 2018-2020 tranche implementation plan, at the funding levels shown in the table below, on the understanding that:

- (a) Botswana recorded consumption in the servicing sector only; and
- (b) The financial incentive scheme would enhance the sustainability of the training of servicing technicians, and that end users would provide co-financing to participate in the scheme.

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage I, second tranche)	90,000	11,700	UNEP
(b)	HCFC phase-out management plan (stage I, second tranche)	140,000	9,800	UNIDO