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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-sixth Meeting
Montreal, 9-13 May 2016

PROJECT PROPOSAL: CAMEROON

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) UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Cameroon

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UNIDO (lead)	64 th	20% by 2017

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2015	67.24 (ODP tonnes)
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(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-141b		0.0		0.0					0.0
HCFC-141b in Imported Pre-blended Polyol		0.0							0.0
HCFC-142b									
HCFC-22				4.6	62.6				67.2

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	88.80	Starting point for sustained aggregate reductions:	77.56
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	20.50	Remaining:	57.06

(V) BUSINESS PLAN		2016	2017	2018	2019	2020	Total
UNIDO	ODS phase-out (ODP tonnes)	0.0	1.0	0.0	0.0	0.0	1.0
	Funding (US \$)	0	63,571	0	0	0	63,571

(VI) PROJECT DATA			2011	2012	2013	2014	2015	2016	2017	Total
Montreal Protocol consumption limits			n/a	n/a	88.8	88.8	79.9	79.9	79.9	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	82.4	82.4	74.2	74.2	65.9	n/a
Agreed funding (US\$)	UNIDO	Project costs	884,453	0	180,000	0	59,136	0	59,136	1,182,725
		Support costs	66,334	0	13,500	0	4,435	0	4,435	88,704
Funds approved by ExCom (US\$)		Project costs	884,453	0	180,000	0	0	0	0.0	1,064,453
		Support costs	66,334	0	13,500	0	0	0	0.0	79,834
Total funds requested for approval at this meeting (US\$)		Project costs	0	0	0	0	0	59,136*	0	59,136
		Support costs	0	0	0	0	0	4,435*	0	4,435

*Third tranche planned for 2015 but only submitted to the 76th meeting.

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Cameroon, UNIDO as the designated implementing agency, has submitted to the 76th meeting a request for funding for the third tranche¹ of stage I of the HCFC phase-out management plan (HPMP), at the amount of US \$59,136, plus agency support costs of US \$4,435. The submission includes a progress report on the implementation of the second tranche, the verification report on HCFC consumption and the tranche implementation plan for 2016 to 2017.

Report on HCFC consumption

HCFC consumption

2. The Government of Cameroon reported a consumption of 67.24 ODP tonnes of HCFC in 2015. The 2011-2015 HCFC consumption is shown in Table 1.

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

HCFC	2011	2012	2013	2014	2015	Baseline
Metric tonnes (mt)						
HCFC-22	1,228.10	1,228.10	1,221.00	1,222.50	1,222.50	1,213.83
HCFC-141b	56.70	56.70	138.00	9.30	0.00	200.43
Sub-total (mt)	1,284.80	1,284.80	1,359.00	1,231.80	1,222.50	1,414.26
HCFC-141b in imported pre-blended polyols*	0	88.27	0	11.72	0.00	
ODP tonnes						
HCFC-22	67.54	67.54	67.15	67.24	67.24	66.80
HCFC-141b	6.24	6.24	15.18	1.02	0.00	22.00
Sub-total (ODP tonnes)	73.78	73.78	82.33	68.26	67.24	88.80
HCFC-141b in imported pre-blended polyols*	0	9.71	0	1.29	0.00	

*Country programme data submitted on 14 March 2015.

3. Consumption of HCFC-141b has been decreasing due to the implementation of the polyurethane (PU) foam conversion projects, except in 2013 when the consumption was below the quota for that year. In 2015, the overall HCFC consumption of 67.24 was 13.5 per cent below the baseline level and below the maximum allowable consumption of 74.2 ODP tonnes in the Agreement between the Government and the Executive Committee.

Verification report

4. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports and that the total HCFC consumption levels for 2013 and 2014 were 82.33 and 68.26 ODP tonnes respectively. The verification concluded that Cameroon has been in compliance with the 2013 and 2014 maximum allowable consumption established in its Agreement with the Executive Committee.

Country programme (CP) implementation report

5. The Government of Cameroon reported HCFC sector consumption data under the 2015 CP implementation report that is consistent with the data reported under Article 7.

¹ The third tranche was originally planned for 2015 but only submitted to the 76th meeting.

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

Policy development

6. The licensing and quota system for HCFC imports is operational and has ensured compliance with the Protocol control targets for 2013 and 2014. A ban on imports of HCFC-141b pure or contained in mixture was established from 1 January 2015. Consultative meetings took place for the introduction of a ban on import of equipment containing HCFCs while a draft text on a ban on manufacturing or installation of new HCFC-based refrigeration and air-conditioning equipment is under review.

7. A total of 165 custom officers and environmental inspectors have been trained in HCFC control, and proper labelling requirements, and the use of ODS identifiers have been integrated into the code of practice for HCFC imports. HCFCs receive a certification of quality at the end of the process before their distribution and commercialization.

PU foam manufacturing sector

8. Seven enterprises manufacturing insulation foam for pipes have been successfully converted to methyl formate technology resulting in the phase-out of 65.45 metric tonnes (mt) (7.20 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols. Training, demonstration and awareness-raising activities on the use of methyl formate were also undertaken to ensure sustainability of the phase-out. Additional technical support was provided by the equipment supplier to PU foam end-users.

9. Technical assistance for small and medium-sized enterprises has been completed resulting in the phase-out of 22.73 mt (2.50 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols. Agreed safety items for three flexible foam manufacturing enterprises using methylene chloride were purchased and delivered as scheduled. Additional technical assistance on available alternatives and on required safety standards when dealing with methylene chloride technology was organized during 2014 and 2015.

Refrigeration servicing sector

10. The refrigeration technicians' training was initiated under the second tranche and is currently being delivered, along with the technician certification, in cooperation with the refrigeration association. A registration requirement for refrigeration technicians has been established and implemented in parallel with the training and certification programme.

11. A total of 55 trainers and 219 technicians have received training on good service practices in the refrigeration and air-conditioning sector. The technicians were also certified and registered in the national technicians' database upon completing their training.

12. Technical schools are fully equipped for training through the CFC terminal phase-out management plan and previous HPMP tranches. Most of the registered end-users are also equipped with recovery machines and appropriate tools. The need for additional equipment will be assessed upon completion of the good practices training programme.

Level of fund disbursement

13. As of March 2016, of the US \$1,064,453 approved so far, US \$844,096 had been disbursed for UNIDO. The balance of US \$220,357 will be disbursed in 2016 (Table 2).

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

Agency	First tranche		Second tranche		Total approved	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNIDO	884,453	788,096	180,000	56,000	1,064,453	844,096
Disbursement rate(%)	89%		32%		79%	

Implementation plan for the third tranche of the HPMP

14. The following activities will be implemented:

- (a) *Policy development:* Follow-up on the approval of legal measures, and development of a national system for logbook keeping and mandatory inspection of leakages of refrigeration equipment containing an amount of refrigerant over certain threshold (US \$10,000);
- (b) *Refrigeration servicing sector:* Additional training for 150 custom officers; provision of refrigerant identifiers (number to be determined based on remaining budget); additional 350 technicians trained, certified and registered in the database; supply of recovery and recycling equipment kits including *inter alia* recovery unit, cylinder, manifold, hoses, vacuum pumps (number to be determined based on ongoing assessment) (US \$30,000); and
- (c) *Management and coordination:* Continued implementation, monitoring and reporting on activities implemented under stage I of the HPMP (US \$19,136).

SECRETARIAT'S COMMENTS AND RECOMMENDATION**COMMENTS**Verification report

15. The Secretariat noted that the verification report did not include the year 2015. UNIDO clarified that in line with the Agreement between the Government and the Executive Committee, the current submission had been foreseen for 2015 and the verification was accordingly carried out in September 2015 covering the years 2013 and 2014. Undertaking an additional verification for the same tranche request would be costly and impossible to submit on time. However, the Government of Cameroon submitted the CP implementation report and the Article 7 data report for 2015 demonstrating that the country is in compliance with the Montreal Protocol and the Agreement.

Progress report on the implementation of the second tranche of the HPMP*Legal framework*

16. The Government of Cameroon has already issued HCFC import quotas for 2016 at 62.65 ODP tonnes, which is lower than the Montreal Protocol and Agreement targets.

17. On the promulgated ban on imports of HCFC-141b pure or in mixtures, UNIDO confirmed that the ban does not specifically state "polyol mixtures". However, customs authorities are trained to treat pre-blended polyols in the same manner as mixtures and manufacturing processes are monitored by environment inspectors. In order to facilitate enforcement of the ban, further improvements to the regulation text are currently under approval, including explicit reference to pre-blended polyols.

PU foam manufacturing sector

18. The main challenge encountered in the sustained HCFC phase-out so far has been avoiding the use of HFC-based mixtures with high global-warming potential (GWP), which are available on the market. In order to address this issue, additional training on technical adjustments to the equipment has been provided to foam enterprises after their conversion to methyl formate, and awareness-raising information on the negative effects of HFCs on the environment has been distributed.

Refrigeration servicing sector

19. The long-term sustainability of training and certification was discussed, noting that technician certification operates through a subcontract with the refrigeration association that will be completed in 2016. Providing technician training and certification in cooperation with the technical vocational schools, has ensured continuity and sustainability of the programme. The schools are involved in organizing professional reconversion programmes and are upgrading the refrigeration curricula on a yearly basis in accordance with latest legal developments or updated best practices. Currently, technician certification is required by law and comprises information on HCFC alternatives, including flammable refrigerants.

20. On the status of introduction of HCFC alternatives in the refrigeration and air-conditioning sector, UNIDO indicated that HFC-134a, HFC-404A, HFC-407C and HFC-410A are still the most commonly used alternatives by the refrigeration sector because of price, know-how and availability. HC-600A use is limited to domestic refrigeration; ammonia technology is not well known and carbon dioxide use, so far limited to demonstration scale. During stage I of the HPMP, priority has been given to best practices training to reduce emissions of refrigerants and to eliminate the use of HCFC-22 for purging and flushing refrigeration circuits. The Government of Cameroon is keen to adopt low-GWP alternatives wherever practical, but their use is still limited due technical considerations.

Conclusion

21. The Government of Cameroon has been in compliance with the Montreal Protocol and the Agreement in 2013, 2014 and 2015. Cameroon with the assistance of UNIDO continues to successfully implement the activities planned under stage I of the HPMP, including training of customs officers, training and certification of technicians, completion of the conversion of all eligible PU foam enterprises to a low-GWP alternative resulting in a phase-out of 9.7 ODP tonnes of HCFC-141b contained in imported pre-blended polyols and the establishment of a ban on imports of HCFC-141b pure or in mixtures as of 1 January 2015. An improvement on this ban is ongoing to ensure that HCFC-141b contained in pre-blended polyols is properly controlled.

RECOMMENDATION

22. 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 Cameroon; and further recommends blanket approval of the third tranche of stage I of the HPMP for Cameroon, and the corresponding 2016-2017 tranche implementation plan, at the funding level shown in the table below:

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage I, third tranche)	59,136	4,435	UNIDO