



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/76/39
12 April 2016

ORIGINAL: ENGLISH

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

PROJECT PROPOSAL: MADAGASCAR

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 UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Madagascar

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UNEP (lead), UNIDO	62 nd	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2015	14.03 (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-123									
HCFC-124									
HCFC-141b									
HCFC-142b									
HCFC-22					14.03				14.03

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	24.90	Starting point for sustained aggregate reductions:	17.10
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	6.00	Remaining:	11.10

(V) BUSINESS PLAN		2016	2017	2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.6	0	0.5	0	0.6	1.7
	Funding (US \$)	67,800	0	49,720	0	63,280	180,800
UNIDO	ODS phase-out (ODP tonnes)	1.3	0	0	0	0	1.3
	Funding (US \$)	129,000	0	0	0	0	129,000

(VI) PROJECT DATA			2010-2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	
Montreal Protocol consumption limits			n/a	24.9	24.9	22.41	22.41	22.41	22.41	22.41	16.18	n/a	
Maximum allowable consumption (ODP tonnes)			n/a	17.1	17.1	15.4	15.4	15.4	15.4	15.4	11.1	n/a	
Agreed funding (US\$)	UNEP	Project costs	70,000	70,000	0	0	60,000	0	44,000	0	56,000	300,000	
		Support costs	9,100	9,100	0	0	7,800	0	5,720	0	7,280	39,000	
	UNIDO	Project costs	140,000	0	0	0	120,000	0	0	0	0	0	260,000
		Support costs	10,500	0	0	0	9,000	0	0	0	0	0	19,500
Funds approved by ExCom (US\$)	Project costs		210,000	70,000	0	0	0	0	0	0	0	280,000	
	Support costs		19,600	9,100	0	0	0	0	0	0	0	0	28,700
Total funds requested for approval at this meeting (US\$)	Project costs		0	0	0	0	180,000	0	0	0	0	180,000	
	Support costs		0	0	0	0	16,800	0	0	0	0	16,800	

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Madagascar, UNEP as the lead implementing agency, has submitted to the 76th meeting a request for funding for the third tranche of stage I of the HCFC phase-out management plan (HPMP), at a total cost of US \$196,800, consisting of US \$60,000, plus agency support costs of US \$7,800 for UNEP, and US \$120,000, plus agency support costs of US \$9,000 for UNIDO. The submission includes a progress report on the implementation of the second tranche and the tranche implementation plan for 2016 to 2018.

Report on HCFC consumption

HCFC consumption

2. The Government of Madagascar reported a consumption of 14.03 ODP tonnes for 2015, which was approximately 44 per cent below the HCFC baseline for compliance. The 2011-2015 HCFC consumption is shown in Table 1.

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

HCFC-22	2011	2012	2013	2014	2015	Baseline
Metric tonnes	300	290	290	278	255	452.72
ODP tonnes	16.50	15.95	15.95	15.29	14.03	24.9

3. HCFC-22, which is used in the servicing and maintenance of refrigeration and air-conditioning equipment, shows a decreasing trend in consumption from 2013 to 2015.

Country programme (CP) implementation report

4. The Government of Madagascar reported HCFC sector consumption data under the 2015 CP implementation report which is consistent with the data reported under Article 7.

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

Legal framework

5. The Government adopted legislative decrees in March 2003, February 2004 and April 2007 to regulate the import and use of ODS, the sale and resale, and use of refrigerants, refrigerant equipment; and the ban on CFCs, HCFCs, halons and methyl bromide. The country imposed a strict control of entry of these substances in the country.

Refrigeration servicing sector

6. The main activities carried out under the second tranche include:

- (a) Five training workshops for 58 customs and other enforcement officers on identification and control of HCFCs, and monitoring of the licensing and quota system;
- (b) A national workshop on the updated HCFC regulations, licensing and quota systems for 37 customs officials, importers/suppliers, refrigeration technicians and the general public;

- (c) Six training workshops for 25 trainers and 87 refrigeration technicians on retrofitting, hydrocarbon technologies and good refrigeration practices and the development and dissemination of a manual for technicians on alternatives to HCFCs for the fisheries sector;
- (d) Set up an incentive programme to convert HCFC-22-based air-conditioners to alternative refrigerants by offering an 80 per cent subsidy for the recovery and recycling of HCFC-22; four recovery and recycling centres are being operated by members of the refrigeration association and only refrigeration and air-conditioning technicians already trained and members of regional or national associations are the beneficiaries of the investment project; and
- (e) Purchase and distribution of equipment and tools to customs, workshops and technicians: 12 sets of RAC service tools, three advanced refrigerant identifiers, six recovery machines, one reclamation machine.

Project implementation and monitoring unit (PMU)

7. The NOU assisted by two consultants (one refrigeration and one customs expert) ensured the effectiveness of all activities proposed within the HPMP and prepared reports.

Level of fund disbursement

8. As of March 2016, of the US \$280,000 so far approved, US \$266,122 had been disbursed (US \$140,000 for UNEP and US \$126,122 for UNIDO) as shown in Table 2. The balance of US \$13,878 will be disbursed in 2016.

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

Agency	First tranche		Second tranche		Total approved	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNEP	70,000	70,000	70,000	70,000	140,000	140,000
UNIDO	140,000	126,122	0	0	140,000	126,122
Total	210,000	196,122	70,000	70,000	280,000	266,122
Disbursement rate (%)	93.39		100.00		95.04	

Implementation plan for the third tranche of the HPMP

9. The strategy of the Government of Madagascar to meet its compliance is based on strengthening the institutional framework including legislation and regulations, training of customs officers, and promotion of good refrigeration practices including recovery and recycling and safe use of flammable refrigerants. The following activities will be implemented:

- (a) Six training workshops with the support of the customs training centre for 180 customs officers, importers, representatives from other sectors on the identification and control of HCFCs, and on monitoring of the licensing and quota system (UNEP) (US \$30,000);
- (b) Six training workshops for 125 refrigeration technicians on good refrigeration practices and safe handling of hydrocarbon, standards and certification (UNEP) (US \$25,000);
- (c) Set-up of revolving fund for recovery and recycling centres: purchase of equipment to convert 100 HCFC-based air-conditioners to hydrocarbons; recruitment of international and national experts; and training on installation and servicing of hydrocarbon air-conditioners (UNIDO) (US \$120,000); and

- (d) Coordination and management of the implementation of the HPMP with the support of national consultants and staff travel (UNEP) (US \$5,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption

10. At the 62nd meeting, when the HPMP was approved, the Government of Madagascar agreed to establish its starting point for sustained aggregate reduction in HCFC consumption as the estimated baseline of 311.8 mt (17.15 ODP tonnes), calculated using actual consumption of 299.87 mt (16.49 ODP tonnes) in 2009 and estimated consumption of 323.8 mt (17.81 ODP tonnes) in 2010. As the Government has not submitted a request to the Implementation Committee to revise its consumption in 2010, the baseline under Article 7 of the Montreal Protocol remains at 24.9 ODP tonnes, and the starting point, as previously agreed, remains at 17.1 ODP tonnes.

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

Legal framework

11. The Government of Madagascar has already issued HCFC import quotas for 2016 at 13.20 ODP tonnes.

Refrigeration servicing sector

12. With regard to the long-term sustainability of the training programmes, UNEP advised that it has involved all training institutions to ensure the sustainability of the activities. Customs and enforcement officers' capacities have been developed, and officials from the Ministry of Environment, Ministry of Trade and Ministry of Finance are aware of ozone protection issues.

13. As to the retrofits to hydrocarbon UNEP indicated that there is no regulations/codes on the use of hydrocarbon-based refrigeration and air-conditioning systems; however, the project activities include the conversion of HCFC-based air-conditioners to hydrocarbons and training on installation and servicing of hydrocarbon-based air-conditioners. The current approach of the servicing sector focuses on the promotion of good refrigeration practices. In addition to HCFC-22, the other refrigerants currently available are HFC-407C and HFC-410A used in the air-conditioning sector and HC-290, R-600A, R-404A, R-422A and the R-717 in the commercial and industrial sector as alternatives. UNEP also reported that the Government and the technicians are well aware of the relevant decisions¹ of the Executive Committee on retrofit through the workshops and network meetings.

Revision of the Agreement

14. The HPMP for Madagascar was approved prior to the establishment of the HCFC baseline for compliance. Based on the data reported by the Government of Madagascar under Article 7, Appendix 2-A ("The targets, and funding") of the Agreement has been updated to reflect the revised Montreal Protocol limits only², and a new paragraph has been added to indicate that the updated Agreement supersedes that reached at the 62nd meeting, as shown in Annex I to the present document. The full revised Agreement will be appended to the final report of this meeting.

¹ Decisions 72/17 and 73/34.

² Decision 62/44

Conclusion

15. The HPMP implementation is progressing and the country is in compliance with the Montreal Protocol and its Agreement with the Executive Committee. The country's import licensing and quota system is operational and will enable HCFC consumption reductions in line with the Montreal Protocol's phase-out schedule. Customs and enforcement officers, and refrigeration technicians have been trained while equipment and tools have been distributed to customs, refrigeration workshops and training institutions. The level of fund disbursement is over 95 per cent. Based on the established baseline for compliance, the Agreement has been updated to reflect the revised Montreal Protocol limits. The activities implemented under the first and second tranches and those planned under the third tranche, including the set up of an incentive programme, additional training and procurement and distribution of equipment and tools to refrigeration workshops and technicians, will further strengthen the servicing sector and ensure the long term sustainability of the activities proposed in stage I of the HPMP.

RECOMMENDATION

16. The Fund Secretariat recommends that the Executive Committee:

- (a) 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 Madagascar; and
- (b) Further notes that the Fund Secretariat had updated Appendix 2-A of the Agreement between the Government of Madagascar and the Executive Committee, based on the revised Montreal Protocol limits only, and that a new paragraph 16 had been added to indicate that the updated revised Agreement superseded that reached at the 62nd meeting, as contained in Annex I to the present document.

17. The Secretariat further recommends blanket approval of the third tranche of stage I of the HPMP for Madagascar, and the corresponding 2016-2018 tranche implementation plan, at the funding levels shown in the table below on the understanding that if Madagascar 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)	60,000	7,800	UNEP
(b)	HCFC phase-out management plan (stage I, third tranche)	120,000	9,000	UNIDO

Annex I

TEXT TO BE INCLUDED IN THE UPDATED AGREEMENT BETWEEN THE GOVERNMENT OF MADAGASCAR AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS

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

16. This updated Agreement supersedes the Agreement reached between the Government of the Madagascar and the Executive Committee at the 62nd meeting of the Executive Committee.

APPENDIX 2-A: THE TARGETS, AND FUNDING

		2010	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	n/a	24.9	24.9	22.41	22.41	22.41	22.41	22.41	16.18	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	n/a	n/a	17.1	17.1	15.4	15.4	15.4	15.4	15.4	11.1	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	70,000	0	0	70,000	0	0	60,000	0	44,000	0	56,000	300,000
2.2	Support costs for Lead IA (US \$)	9,100	0	0	9,100	0	0	7,800	0	5,720	0	7,280	39,000
2.3	Cooperating IA (UNIDO) agreed funding (US \$)	140,000	0	0	0	0	0	120,000	0	0	0	0	260,000
2.4	Support costs for Cooperating IA (US \$)	10,500	0	0	0	0	0	9,000	0	0	0	0	19,500
3.1	Total agreed funding (US \$)	210,000	0	0	70,000	0	0	180,000	0	44,000	0	56,000	560,000
3.2	Total support costs (US \$)	19,600	0	0	9,100	0	0	16,800	0	5,720	0	7,280	58,500
3.3	Total agreed costs (US \$)	229,600	0	0	79,100	0	0	196,800	0	49,720	0	63,280	618,500
4.1.1	Total phase-out of HCFC-22 under this agreement (ODP tonnes)												6.00
4.1.2	Phase-out of HCFC-22 in previously approved projects (ODP tonnes)												0.0
4.1.3	Remaining eligible consumption for HCFC-22												11.1