



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/90/31

26 May 2022

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninetieth Meeting
Montreal, 20-23 June 2022
Items 9(a) and (d) of the provisional agenda¹

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 II, first tranche) UNEP and UNIDO

¹ UNEP/OzL.Pro/ExCom/90/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Madagascar

(I) PROJECT TITLE	AGENCY
HCFC phase-out plan (stage II)	UNEP (lead), UNIDO

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2021	9.46 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2021	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Serviceing				
HCFC-22					9.46				9.46

(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		2022	2023	2024	Total
UNEP	ODS phase-out (ODP tonnes)	0.83	0.00	0.00	0.83
	Funding (US \$)	81,855	0	0	81,855
UNIDO	ODS phase-out (ODP tonnes)	1.19	0.00	1.56	2.75
	Funding (US \$)	111,280	0	145,985	257,265

(VI) PROJECT DATA			2022	2023-2024	2025	2026	2027	2028	2029	2030	Total
Montreal Protocol consumption limits			16.18	16.18	8.09	8.09	8.09	8.09	8.09	0.00	n/a
Maximum allowable consumption (ODP tonnes)			11.10	11.10	5.55	5.55	5.55	5.55	5.55	0.00	n/a
Project costs requested in principle (US \$)	UNEP	Project costs	120,000	0	206,750	0	140,000	0	0	166,750	633,500
		Support costs	15,094	0	26,006	0	17,610	0	0	20,975	79,685
	UNIDO	Project costs	187,720	0	0	0	218,780	0	0	0	406,500
		Support costs	13,140	0	0	0	15,315	0	0	0	28,455
Total project costs requested in principle (US \$)			307,720	0	206,750	0	358,780	0	0	166,750	1,040,000
Total support costs requested in principle (US \$)			28,234	0	26,006	0	32,925	0	0	20,975	108,140
Total funds requested in principle (US \$)			335,954	0	232,756	0	391,705	0	0	187,725	1,148,140

(VII) Request for approval of funding for the first tranche (2022)		
Implementing agency	Funds requested (US \$)	Support costs (US \$)
UNEP	120,000	15,094
UNIDO	187,720	13,140
Total	307,720	28,234

Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

Background

1. On behalf of the Government of Madagascar, UNEP as the lead implementing agency has submitted a request for stage II of the HCFC phase-out management plan (HPMP), at a total cost of US \$1,148,140, consisting of US \$633,500, plus agency support costs of US \$79,685 for UNEP and US \$406,500, plus agency support costs of US \$28,455 for UNIDO, as originally submitted.² The implementation of stage II of the HPMP will phase out the remaining consumption of HCFCs by 2030.

2. The first tranche of stage II of the HPMP being requested at this meeting amounts to US \$335,954, consisting of US \$120,000, plus agency support costs of US \$15,094 for UNEP and US \$187,720, plus agency support costs of US \$13,140 for UNIDO, as originally submitted.

Status of implementation of stage I of the HPMP

3. Stage I of the HPMP for Madagascar was originally approved at the 62nd meeting³ and revised at the 76th meeting⁴ to phase out 6.00 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) servicing sector to meet the 35 per cent reduction from the starting point for aggregate reductions in HCFC consumption (starting point) by 2020, at a total cost of US \$560,000, plus agency support costs. Stage I of the HPMP was completed on 31 December 2021.

HCFC consumption

4. The Government of Madagascar reported a consumption of 9.46 ODP tonnes of HCFC in 2021, which is 62 per cent below the HCFC baseline for compliance and 45 per cent below the starting point of 17.10 ODP tonnes. The 2017-2021 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Madagascar (2017-2021 Article 7 data)

HCFC-22	2017	2018	2019	2020	2021	Baseline
Metric tonnes (mt)	195.00	189.09	175.00	100.00	172.00	452.70
ODP tonnes	10.73	10.40	9.63	5.50	9.46	24.90

5. HCFC-22, which is used in the servicing and maintenance of RAC equipment, has been decreasing since 2013. In 2020, there was a significant decrease in HCFC-22 consumption due to a combination of regulations to control HCFC consumption to achieve the 2020 reduction target and the COVID-19 pandemic that resulted in lower demand for servicing RAC equipment. In addition, HPMP activities relating to the training on good servicing practices and awareness and outreach campaigns on HCFC consumption reduction activities; and adoption of alternatives to HCFC (e.g., HFC-134a, R-404A, R-410A, R-407C) in RAC applications have resulted in an overall decrease in HCFC-22 consumption over the last eight years.

Country programme (CP) implementation report

6. The Government of Madagascar reported HCFC sector consumption data under the 2021 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

² As per the letter of 24 February 2022 from the Ministère de l'Environnement et du Développement Durable of Madagascar to UNEP.

³ Decision 62/44 and document UNEP/OzL.Pro/ExCom/62/38

⁴ Annex VI of document UNEP/OzL.Pro/ExCom/76/66

Revision of baseline

7. At the 62nd meeting, when the HPMP was approved, the Government of Madagascar agreed to establish its starting point 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 had not submitted a request to the Implementation Committee to revise its consumption, the baseline under Article 7 of the Montreal Protocol remains at 24.9 ODP tonnes, and the starting point, as previously agreed, remains at 17.10 ODP tonnes.

8. Upon request by the Secretariat, the Government of Madagascar submitted an official communication to the Ozone Secretariat on 4 March 2022, requesting the correction of the HCFC-22 consumption data under Article 7 for 2009 from 33 ODP tonnes to 16.49 ODP tonnes in accordance with paragraph 5 of decision XIII/15.⁵ The Ozone Secretariat has requested the country to provide information related to the revision of the baseline data and indicated that this request would be processed in accordance with decision XV/19 on methodology for submission of requests for revision of baseline data.⁶ Once this information is submitted by the Government, the Ozone Secretariat will present it to the Implementation Committee for its consideration at its meeting in July 2022.

Status of progress and disbursement

Legal framework

9. The Government implements its laws and regulations to control the entry, sale and resale, and use of refrigerants and refrigerant equipment. Through the implementation of stage I of the HPMP, the country has established an operational online import license system under the Ministry, Department and Control Agency (MIDAC), which provides for the electronic issuance of import authorizations for HCFCs and HCFC-based equipment; the Ministry of Trade manages import and export of HCFCs based on licenses issued through MIDAC; and the maximum allowed quantities of HCFCs to be imported are set upon advice from the national ozone unit (NOU). A total of 413 customs and enforcement officers were trained on control and monitoring of HCFCs; and three refrigerant identifiers for customs officers were procured and distributed.

10. The Government has issued HCFC import quotas for 2022 at 9.63 ODP tonnes that is below the Montreal Protocol control targets and the maximum allowable consumption, and distributed them to 11 specialized importers and others who import HCFCs directly.

11. The Government of Madagascar has not yet ratified the Kigali Amendment, but the process leading to its ratification is under way; the instrument of ratification is expected to be signed before the end of the first half of 2022.

Refrigeration servicing sector

12. A total of 517 service technicians were trained on good servicing practices as well as safe use of HCFC-free alternatives; equipment and tools were provided to seven training institutions; one reclamation centre was established with equipment (e.g., recovery machines with simple purification feature, refrigerant cylinders). A total of 38 R-290-based air conditioners were procured and distributed to beneficiaries (e.g., in banking, hotels and textile industries) to increase awareness on safe adoption, servicing and maintenance of R-290-based air conditioners and the installation of equipment would be completed by the end of June 2022. UNIDO confirmed that in line with decision 84/84(d), it will submit a detailed report on the

⁵ To advise Parties that request changes in reported baseline data for the base years to present their requests before the Implementation Committee which will in turn work with the Ozone Secretariat and the Executive Committee to confirm the justification for the changes and present them to the Meeting of the Parties for approval.

⁶ Document UNEP/OzL.Pro.15/9

results of the end-user project on installation of R-290-based air conditioners to allow the Secretariat to develop fact sheets to inform future projects.

Level of fund disbursement

13. As of March 2022, of the total funds of US \$560,000⁷ approved under stage I, US \$553,452 had been disbursed (US \$300,000 for UNEP and US \$253,452 for UNIDO), and the balance of US \$4,654 will be disbursed in 2022.

Stage II of the HPMP

Remaining consumption eligible for funding

14. After deducting 6.00 ODP tonnes of HCFCs associated with stage I of the HPMP, the remaining consumption eligible for funding in stage II amounts to 11.10 ODP tonnes of HCFC-22.

Sector distribution of HCFCs

15. There are approximately 1,000 technicians and 300 workshops in the servicing sector, consuming HCFC-22 to service unitary and split air conditioners, cold stores, industrial refrigeration, chillers, transport refrigeration, as shown in Table 2. HCFC-22 represents 13.2 per cent of the refrigerants used in the servicing sector in mt; HFC-134a, R-404A, HFC-32 and R-410A are the other main refrigerants consumed in the country.

Table 2. Estimation of demand for HCFC-22 in the RAC servicing sector in Madagascar

Sector/ Application	(a)	(b)	(c) = (a)*(b)	(d)	(c)*(d)
	Equipment inventory	Average charge (kg/unit)	HCFC bank (mt)	Estimated bank refilled during servicing (%)	Annual need for servicing (mt)
Room AC (unitary and split)	56,350	1.2	67.6	30	20.3
Commercial refrigeration (medium condensing units)	6,435	22.0	141.6	54	76.5
Industrial refrigeration (medium to large condensing units, centralized systems)	260	145.0	37.7	55	20.7
Transport refrigeration	390	21.0	8.2	35	2.9
Total	63,435	n/a	255.1	n/a	120.0*

* The difference between estimated consumption of 2020 in Table 2 and actual consumption reported under Article 7 may be on account of stockpile and difference resulting from estimates.

Phase-out strategy in stage II of the HPMP

16. Stage II of the HPMP will focus on strengthening national regulations and customs capacity for controlling and monitoring HCFCs and facilitating adoption of HCFC-free low-global-warming-potential (GWP) alternatives; and strengthening the refrigeration servicing sector through training of technicians to implement good practices when servicing RAC equipment including those based on low-GWP alternative technologies, establishing a national RAC technician certification scheme, strengthening national centres of excellence for training technicians on low-GWP alternatives, and implementation of recovery and reclamation programme for reducing demand for consumption of HCFCs.

⁷ Including US \$1,566 that was returned at the 83rd meeting and US \$328 that will be returned at the 91st meeting.

Proposed activities in stage II of the HPMP

17. Stage II proposes the following activities:

- (a) *Strengthening the legal and regulatory framework*: Ensuring a functional and enforceable system of licensing and quotas for HCFC imports through legislative and regulatory measures and developing and implementing other regulations including prohibiting import and sale of HCFC-based equipment (UNEP) (US \$20,000);
- (b) *Training for customs and enforcement officers on controlling the imports of HCFCs*: Training of at least 650 customs and enforcement officers on control and identification of HCFCs and HCFC-based equipment as well as pertinent laws and regulations on their import; organization for importers and distributors of HCFCs and HCFC-based equipment and their alternatives, of at least 20 information and awareness-raising workshops on the Government procedures for issuing import licenses and granting annual quotas, and at least 20 workshops on the potential risks and dangers of certain types of alternative refrigerants (these workshops can be combined) (UNEP) (US \$230,000);
- (c) *Training for refrigeration technicians on good servicing practices*: Training of, and information and awareness-raising campaigns for, at least 750 RAC technicians on good practices in refrigeration, including techniques for the recovery, recycling and reuse of refrigerants and safe handling of alternative refrigerants and equipment based on them; updating the training materials to include information on low-GWP alternative technologies and their safe handling; development of regulatory standards and protocols on the use of flammable and toxic substances in RAC equipment; establishment and implementation of a certification scheme for refrigeration technicians; organization of targeted campaigns for students to study in the RAC field and a gender-based campaign for female students to enter the RAC field (UNEP) (US \$330,000);
- (d) *Strengthening the existing centres of excellence and establishing new ones through technical assistance*: Delivery of new tools and equipment⁸ and spare parts for the existing equipment to seven centres of excellence, including training on how to use them; establishment of two new centres of excellence; procurement of 10 additional advanced multi-refrigerant identifiers and repair of existing identifiers after an assessment; and training of three to four trainers on safe use of hydrocarbons (HCs) to be organized jointly with the Government of Austria (UNIDO) (US \$355,500); and
- (e) *Review and upgrade of the existing reclamation centre and establishment of an additional reclamation centre*: Review of operation of the existing reclamation centre and upgrade, as required; and establishment of an additional reclamation centre (UNIDO) (US \$51,000).

Project monitoring

18. The system established under stage I of the HPMP will continue into stage II, where the NOU and UNEP monitor activities, report on progress, and work with stakeholders to phase out HCFCs. The cost of those activities for UNEP amounts to US \$53,500, and includes project staff and consultants (US \$30,000), domestic travel (US \$15,000), meetings and workshops (US \$8,500).

⁸ Including portable HC charging stations, refrigerant identifiers, manifold gauge, repair tools, electronic leak detector.

*Gender policy implementation*⁹

19. UNEP informed that the Government of Madagascar, UNEP and UNIDO, are fully committed to implementing the gender policy. Less than 20 per cent of graduates in the field of refrigeration are women; 10 female RAC service technicians and 65 female customs and enforcement officers were trained during stage I. In stage II, the Government proposes to include in training and capacity building activities at least 25 per cent women. Further, to encourage more participation of women in service sector training activities, the Government proposes to train at least two female trainers. The Government also proposes to undertake awareness and outreach activities for encouraging women participation in RAC servicing training, through giving awards and recognition of female engineers and technicians and providing equipment support to female technicians for implementing good servicing practices.

Total cost of stage II of the HPMP

20. The total cost of stage II of the HPMP for Madagascar has been estimated at US \$1,040,000 (plus agency support costs), as originally submitted, for achieving a 67.5 per cent reduction from its starting point by 2025 and 100 per cent reduction from its HCFC baseline consumption by 2030. The proposed activities and cost breakdown are summarized in Table 3.

Table 3. Total cost of stage II of the HPMP for Madagascar as submitted

Activity	Agency	Cost (US \$)
Strengthening the legal and regulatory framework	UNEP	20,000
Training for customs and enforcement officers on controlling the imports of HCFCs	UNEP	230,000
Training for refrigeration technicians on good servicing practices	UNEP	330,000
Strengthening the existing centres of excellence, establishing new centres of excellence and other technical assistance	UNIDO	355,500
Review and upgrade of existing reclamation centre and establishment of additional reclamation centre	UNIDO	51,000
Monitoring and reporting	UNEP	53,500
Total		1,040,000

Activities planned for the first tranche of stage II

21. The first funding tranche of stage II of the HPMP in the total amount of US \$307,720 will be implemented between August 2022 and June 2025 and will include the following activities:

- (a) *Strengthening the legal and regulatory framework*: Ensuring a functional and enforceable system of licensing and quotas for HCFC imports through legislative and regulatory measures and developing and implementing other regulations including prohibiting import and sale of HCFC-based equipment (UNEP) (US \$5,000);
- (b) *Training for customs and enforcement officers on controlling the imports of HCFCs*: Training of at least 180 customs and enforcement officers on control and identification of HCFCs and HCFC-based equipment as well as pertinent laws and regulations on their import; organization for importers and distributors of HCFCs and HCFC-based equipment and their alternatives, of at least five information and awareness-raising workshops on the Government procedures for issuing import licenses and granting annual quotas, and at least five workshops on the potential risks and dangers of certain types of alternative refrigerants (these workshops can be combined) (UNEP) (US \$45,000);

⁹ Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

- (c) *Training for refrigeration technicians on good servicing practices:* Training of, and information and awareness-raising campaigns for, at least 180 RAC technicians on good practices in refrigeration, including techniques for the recovery, recycling and reuse of refrigerants and safe handling of alternative refrigerants and equipment based on them; development of regulatory standards and protocols on the use of flammable and toxic substances in RAC equipment; establishment and implementation of a certification scheme for refrigeration technicians (UNEP) (US \$60,000);
- (d) Strengthening the existing centres of excellence through technical assistance and equipment support, and review and upgrade of existing reclamation centre: Delivery of new tools and equipment and spare parts for the existing equipment to four centres of excellence, including training on how to use them; assessment and possible repair of existing refrigerant identifiers as well as purchase of five additional advanced multi-refrigerant identifiers; intensive training of three to four trainers on safe use of HCs to be organized jointly with the Government of Austria; assessment of the existing reclamation centre and upgrade, as required (UNIDO) (US \$187,720); and
- (e) Project implementation, monitoring and reporting (UNEP) (US \$10,000): US \$5,000 for staff and consultant, US \$3,000 for travel, and US \$2,000 for meetings and workshops.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

22. The Secretariat reviewed stage II of the HPMP in light of stage I, the policies and guidelines of the Multilateral Fund, including the criteria for funding HCFC phase-out in the consumption sector for stage II of HPMPs (decision 74/50), and the 2022-2024 business plan of the Multilateral Fund.

Overarching strategy

23. The Government of Madagascar proposes to meet the 100 per cent reduction of its HCFC baseline consumption by 2030, and to maintain a maximum annual consumption of HCFCs in the period of 2030 to 2040 at a level consistent with Article 5, paragraph 8 ter(e)(i) of the Montreal Protocol.¹⁰ To achieve the above targets, the Government would continue strengthening implementation of regulations to control and monitor supply of HCFCs including enforcement of import quotas, ban the import of HCFCs from 1 January 2030 except those allowed for service tail use, ban the import of HCFC-based RAC equipment from 1 January 2025, undertake capacity building and training of refrigeration technicians and customs and enforcement officers, implement recovery and reclamation programme for HCFCs and upgrade facilities for seven technical training institutions to provide training on safe handling of low-GWP alternatives to HCFCs.

24. In line with decision 86/51, to allow for consideration of the final tranche of its HPMP, the Government of Madagascar agreed to submit a detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption is in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the 2030-2040 period, and the expected annual HCFC consumption in Madagascar for the 2030-2040 period.

¹⁰ HCFC consumption may exceed zero in any year so long as the sum of its calculated levels of consumption over the ten-year period from 1 January 2030 to 1 January 2040, divided by 10, does not exceed 2.5 per cent of the HCFC baseline.

Regulations to support HCFC phase-out

25. UNEP explained that the Government is considering implementing a ban on new HCFC-22-based equipment from 1 January 2025 and would consider a gradual approach to implement a ban on second-hand HCFC-22-based equipment; the standards and protocols for handling flammable and toxic substances used in RAC equipment would be implemented during stage II and would form an important part of the capacity building activities relating to the servicing sector; and the Government would consider implementing regulations to maximise recovery of refrigerants and prevent emissions during stage II.

26. On the overall plan for the implementation of the certification scheme, UNEP explained that the certification system needs to be introduced in Madagascar from the ground up, as no previous experience in this regard exists in the country; during the implementation of the first tranche of stage II, an international expert (or institution) will be hired to develop a study on ways to approach the establishment of the national certification scheme, including the institutional setup, that can also be sustainable after the completion of the HPMP. UNEP's Compliance Assistance Programme will also assist the country with its regional and global knowledge and expertise in establishing the system. From the second tranche to the fourth tranche, the certification process and the associated institutional setup will be established, and the certification scheme will be implemented.

Technical and cost-related issues

27. Upon request for clarifications, UNIDO confirmed that the recommendations included in the verification report¹¹ submitted to the 85th meeting were taken into account when stage II was prepared. It further indicated that customs and enforcement capacity building and training on HCFC monitoring and control to prevent illegal trade would be undertaken on an ongoing basis with support from the Directorate General of Customs, and the module on ODS would be updated for ongoing training in Customs training school and in Environmental Judicial Police Officers training school. Other relevant activities included in stage II are information and awareness-raising workshops for importers and distributors of HCFCs, HCFC-based equipment and their alternatives on the Government procedures for issuing import licenses and granting annual quotas, procurement of 10 additional refrigerant identifiers and strengthening of centres of excellence and establishment of two new ones.

28. The Secretariat requested additional clarifications on the implementation of a recovery and reclamation programme including the review and upgrade of operations of the existing reclamation centre. UNIDO explained that only US \$24,000 was assigned to this component in the first tranche to undertake a needs assessment for upgrade of the reclamation centre established in Mahajanga, purchase certain additional components (e.g., recovery cylinders, refrigerant weighing scale, one recovery unit) and prepare a feasibility assessment and business plan for the additional centre for the recovery and reclamation programme. Based on the outcomes of the feasibility assessment, the funds would be requested for the programme or additional equipment for recovery and recycling for service agencies in the third tranche.

Risks in the sustainability of the activities proposed under stage II

29. UNEP explained that to ensure the sustainability of the customs training beyond the HPMP timeline, the training topics relating to ODS and other controlled substances will be updated periodically and included in the training curricula for customs and enforcement officers; thus, on an ongoing basis, customs and enforcement officers will continue to be trained on enforcement issues.

¹¹ The verification recommended continuation of capacity building of customs and enforcement officers on HCFC import monitoring, providing additional equipment for analysing refrigerants to customs offices, making training modules of new refrigerants available to referral centres and training school, and expanding referral centres to other regions of the country.

30. On the sustainability of the service technician training programme, UNEP explained that the capacity building and the equipment support to the nine national training centres will result in ongoing training of service technicians on good servicing practices and safe use of alternatives and equipment based on them; further, implementation of national standards and protocols for the safe use of flammable and toxic refrigerants and the certification system for technicians would facilitate strengthening the capacity of service technicians on an ongoing basis in the safe handling of HCFC-free alternatives.

Total project cost

31. The total cost for stage II of the HPMP amounts to US \$1,040,000, based on decision 74/50(c)(xii) on the eligible funding level for a low-volume-consuming country. The funding for the first tranche was agreed as submitted at US \$307,720.

Impact on the climate

32. The activities proposed in the servicing sector, which include better containment of refrigerants through training and provision of equipment, will reduce the amount of HCFC-22 used for RAC servicing. Each kilogram of HCFC-22 not emitted due to better refrigeration practices results in the savings of approximately 1.8 CO₂-equivalent tonnes. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Madagascar, including its efforts to promote low-GWP alternatives, as well as refrigerant recovery and reuse indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere, resulting in climate benefits.

Co-financing

33. The Government proposes to include co-financing of US \$100,000 in the form of rent of offices for project management, assignment of local temporary staff for assistance in meetings and workshops, transport/organisation of workshops and in-kind support from Government officers within the Ministry of Environment and other Ministries.

2022-2024 draft business plan of the Multilateral Fund

34. UNEP and UNIDO are requesting US \$1,040,000, plus agency support costs, for the implementation of stage II of the HPMP for Madagascar. The total requested value of US \$335,954, including agency support costs for the period of 2022–2024, is US \$3,166 below the amount in the business plan.

Draft Agreement

35. A draft Agreement between the Government of Madagascar and the Executive Committee for stage II of the HPMP is contained in Annex I to the present document.

RECOMMENDATION

36. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for Madagascar for the period from 2022 to 2030 for the complete phase-out of HCFC consumption, in the amount of US \$1,148,140, consisting of US \$633,500, plus agency support costs of US \$79,685 for UNEP and US \$406,500, plus agency support costs of US \$28,455 for UNIDO, on the understanding that no more funding from the Multilateral Fund would be provided for the phase-out of HCFCs;

- (b) Noting the commitment of the Government of Madagascar to completely phase out HCFCs by 1 January 2030, and that HCFCs would not be imported after that date, except for those allowed for a servicing tail between 2030 and 2040, where required, consistent with the provisions of the Montreal Protocol;
- (c) Deducting 11.10 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (d) Approving the draft Agreement between the Government of Madagascar and the Executive Committee for the reduction in consumption of HCFCs, in accordance with stage II of the HPMP, contained in Annex I to the present document, on the understanding that if the baseline data were revised, Appendix 2-A to the Agreement would be updated to include the revised figures for Montreal Protocol limits when the next tranche is submitted;
- (e) That, to allow for consideration of the final tranche of its HPMP, the Government of Madagascar should submit:
 - (i) A detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption was in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the 2030-2040 period;
 - (ii) The expected annual HCFC consumption in Madagascar for the 2030-2040 period; and
- (f) Approving the first tranche of stage II of the HPMP for Madagascar, and the corresponding tranche implementation plan, in the amount of US \$335,954, consisting of US \$120,000, plus agency support costs of US \$15,094 for UNEP, and US \$187,720, plus agency support costs of US \$13,140 for UNIDO.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF MADAGASCAR AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE II OF THE HCFC PHASE-OUT MANAGEMENT PLAN

Purpose

1. This Agreement represents the understanding of the Government of Madagascar (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 zero ODP tonnes by 1 January 2030 in compliance with Montreal Protocol schedule.
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 that exceeds the level defined in row 1.2 of Appendix 2-A 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 that exceeds the level defined in row 4.1.3 (remaining consumption eligible for funding).
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 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 agrees to implement this Agreement in accordance with the stage II of the HCFC phase-out management plan (HPMP) approved (“the Plan”). In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.

Conditions for funding release

5. The Executive Committee will only provide the Funding in accordance with the Funding Approval Schedule when the Country satisfies the following conditions at least eight weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:
 - (a) That the Country has met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved. Years for which there are no due country programme implementation reports at the date of the Executive Committee meeting at which the funding request is being presented are exempted;
 - (b) That the meeting of these Targets has been independently verified for all relevant years, unless the Executive Committee decided that such verification would not be required;
 - (c) That the Country had submitted a Tranche Implementation Report 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 a Tranche Implementation Plan in the form of Appendix 4-A 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.

Monitoring

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 Plans in accordance with their roles and responsibilities set out in the same appendix.

Flexibility in the reallocation of funds

7. The Executive Committee agrees that the Country may have the flexibility to reallocate part or all of the approved funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:

- (a) Reallocations categorized as major changes must be documented in advance either in a Tranche Implementation Plan as foreseen in sub-paragraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:
 - (i) Issues potentially concerning the rules and policies of the Multilateral Fund;
 - (ii) Changes which would modify any clause of this Agreement;
 - (iii) Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches; and
 - (iv) Provision of funding for activities not included in the current endorsed Tranche Implementation Plan, or removal of an activity in the Tranche Implementation Plan, with a cost greater than 30 per cent of the total cost of the last approved tranche;
- (b) 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 subsequent Tranche Implementation Report; and
- (c) Any remaining funds held by the bilateral or implementing agencies or the Country under the Plan will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

Considerations for the refrigeration servicing sector

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sector included in the Plan, 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 relevant bilateral and/or implementing agencies would take into consideration relevant decisions on the refrigeration servicing sector during the implementation of the Plan.

Bilateral and implementing agencies

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 UNIDO has agreed to be the 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 the Lead IA and/or Cooperating IA taking part in this Agreement.

10. The Lead IA will be responsible for ensuring co-ordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per sub-paragraph 5(b). The Cooperating IA will support the Lead IA by implementing the Plan under the overall co-ordination of the Lead IA. The roles of the Lead IA and Cooperating IA are contained in Appendix 6-A and Appendix 6-B, respectively. 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.

Non-compliance with the Agreement

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 amount set out in Appendix 7-A (“Reductions in Funding for Failure to Comply”) in respect of each ODP kg 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 decisions are taken, the specific case of non-compliance with this Agreement will not be an impediment for the provision of funding for future tranches as per paragraph 5 above.

12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decisions 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 the information necessary to verify compliance with this Agreement.

Date of completion

14. The completion of the Plan and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should at that time there still be activities that are outstanding, and which were foreseen in the last Tranche Implementation Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion of the Plan will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per sub-paragraphs 1(a), 1(b),

1(d), and 1(e) of Appendix 4-A will continue until the time of the completion of the Plan unless otherwise specified by the Executive Committee.

Validity

15. All of the conditions 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.

16. This Agreement may be modified or terminated only by mutual written agreement of the Country and the Executive Committee of the Multilateral Fund.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	17.10

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2022	2023-2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	16.18	16.18	8.09	8.09	8.09	8.09	8.09	0.00	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	11.10	11.10	5.55	5.55	5.55	5.55	5.55	0.00	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	120,000	0	206,750	0	140,000	0	0	166,750	633,500
2.2	Support costs for Lead IA (US \$)	15,094	0	26,006	0	17,610	0	0	20,975	79,685
2.3	Cooperating IA (UNIDO) agreed funding (US \$)	187,720	0	0	0	218,780	0	0	0	406,500
2.4	Support costs for Cooperating IA (US \$)	13,140	0	0	0	15,315	0	0	0	28,455
3.1	Total agreed funding (US \$)	307,720	0	206,750	0	358,780	0	0	166,750	1,040,000
3.2	Total support costs (US \$)	28,234	0	26,006	0	32,925	0	0	20,975	108,140
3.3	Total agreed costs (US \$)	335,954	0	232,756	0	391,705	0	0	187,725	1,148,140
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)									11.10
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)									6.00
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)									0.00

*Date of completion of stage I as per stage I Agreement: 31 December 2021

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the first 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 Plans for each tranche request will consist of five parts:

- (a) A narrative report, with data provided by tranche, describing the progress achieved since the previous report, reflecting 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 include the amount of ODS phased out as a direct result from the implementation of activities, by substance, and the alternative technology used and the related phase-in of alternatives, to allow the Secretariat to provide to the Executive Committee information about the resulting change in climate relevant emissions. The report should further highlight successes, experiences, and challenges related to the different activities included in the Plan, reflecting any changes in the circumstances in the Country, and providing other relevant information. The report should also include information on and justification for any changes vis-à-vis the previously submitted Tranche Implementation Plan(s), 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;
- (b) An independent verification report of the Plan results and the consumption of the Substances, 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 during the period covered by the requested tranche, highlighting implementation milestones, the time of completion and the interdependence of the activities, and taking into account experiences made and progress achieved in the implementation of earlier tranches; the data in the plan will be provided by calendar year. The description should also include a reference to the overall Plan and progress achieved, as well as any possible changes to the overall Plan that are foreseen. The description should also specify and explain in detail such changes to the overall plan. This description of future activities can be submitted as a part of the same document as the narrative report under sub-paragraph (b) above;
- (d) A set of quantitative information for all Tranche Implementation Reports and Plans, submitted through an online database; and
- (e) An Executive Summary of about five paragraphs, summarizing the information of the above sub-paragraphs 1(a) to 1(d).

2. In the event that in a particular year two stages of the HPMP are being implemented in parallel, the following considerations should be taken in preparing the Tranche Implementation Reports and Plans:

- (a) The Tranche Implementation Reports and Plans referred to as part of this Agreement, will exclusively refer to activities and funds covered by this Agreement; and
- (b) If the stages under implementation have different HCFC consumption targets under Appendix 2-A of each Agreement in a particular year, the lower HCFC consumption target will be used as reference for compliance with these Agreements and will be the basis for the independent verification.

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. Overall monitoring will be provided by the Government, through the national ozone unit (NOU), with assistance from the Lead IA. The NOU will submit annual progress reports of status of implementation of the Plan to the Lead IA.

2. Consumption will be monitored and determined from official data of import and export of substances as registered by the relevant Government departments. The NOU will compile and report the following data and information each year on or before the relevant deadlines:

- (a) Reports on the consumption of the substances to be submitted to the Ozone Secretariat in line with Article 7 of the Montreal Protocol; and
- (b) Reports on country programme data to be submitted to the Secretariat of the Multilateral Fund.

3. Monitoring of development of the Plan and verification of the achievement of the performance targets will be assigned to an independent local company or to independent local consultant(s) by the Lead IA. The company or consultant(s) responsible for verification will have full access to relevant technical and financial information related to the implementation of the Plan.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities, including 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 HPMP;
- (b) Assisting the Country in preparation of the Tranche Implementation Reports and Plans as per Appendix 4-A;
- (c) Providing independent verification to the Executive Committee that the Targets have been met and associated tranche 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 Tranche Implementation Reports and Plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee, and should include the activities implemented by the Cooperating IA;

- (f) In the event that the last funding tranche is requested one or more years prior to the last year for which a consumption target had been established, annual tranche implementation reports and, where applicable, verification reports on the current stage of the Plan should be submitted until all activities foreseen had been completed and HCFC consumption targets had been met;
- (g) Ensuring that appropriate independent technical experts carry out the technical reviews;
- (h) Carrying out required supervision missions;
- (i) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;
- (j) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
- (k) 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 IA, the allocation of the reductions to the different budget items and to the funding of the Lead IA and the Cooperating IA;
- (l) Ensuring that disbursements made to the Country are based on the use of the indicators;
- (m) Providing assistance with policy, management and technical support when required;
- (n) Reaching consensus with the Cooperating IA on any planning, co-ordination and reporting arrangements required to facilitate the implementation of the Plan; and
- (o) Timely releasing funds to the Country/participating enterprises for completing the activities related to the project.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent entity 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 THE COOPERATING IMPLEMENTING AGENCY

1. The Cooperating IA will be responsible for a range of activities. These activities are specified in the Plan, including at least the following:

- (a) Providing assistance for policy development 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;
- (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A; and
- (d) Reaching consensus with the Lead IA on any planning, co-ordination and reporting arrangements required to facilitate the implementation of the Plan.

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, on the understanding that the maximum funding reduction would not exceed the funding level of the tranche being requested. Additional measures might be considered in cases where non-compliance extends for two consecutive years.

2. In the event that the penalty needs to be applied for a year in which there are two Agreements in force (two stages of the HPMP being implemented in parallel) with different penalty levels, the application of the penalty will be determined on a case-by-case basis taking into consideration the specific sectors that lead to the non-compliance. If it is not possible to determine a sector, or both stages are addressing the same sector, the penalty level to be applied would be the largest.
