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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Ninety-first Meeting  
Montreal, 5-9 December 2022  
Items 9(c) and 9(d) of the provisional agenda<sup>1</sup>

**PROJECT PROPOSALS: BARBADOS**

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

Phase-out

- HCFC phase-out management plan (stage I, fourth tranche) UNEP and UNDP
- HCFC phase-out management plan (stage II, first tranche) UNEP and UNDP

<sup>1</sup> UNEP/OzL.Pro/ExCom/91/1

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## Barbados

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage I)	UNEP (lead), UNDP	69 <sup>th</sup>	35% phase-out by 2020

(II) LATEST ARTICLE-7 DATA (Annex C Group I)	Year: 2021	0.49 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	Servicing				
HCFC-22					0.49				0.49
HCFC-142b									0.00

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	3.69	Starting point for sustained aggregate reductions:	3.69
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	1.29	Remaining:	2.40

(V) ENDORSED BUSINESS PLAN		2022
UNEP	ODS phase-out (ODP tonnes)	0.13
	Funding (US \$)	31,640

(VI) PROJECT DATA			2013	2014	2015	2016	2017	2018	2019	2020	2022	Total	
Montreal Protocol consumption limits (ODP tonnes)			3.69	3.69	3.32	3.32	3.32	3.32	3.32	2.40	2.40	n/a	
Maximum allowable consumption (ODP tonnes)			3.69	3.69	3.32	3.32	3.32	3.32	3.32	2.40	2.40	n/a	
Funding agreed in principle (US \$)	UNEP	Project costs	74,000	0	0	48,000	0	42,000	0	28,000	0	192,000	
		Support costs	9,620	0	0	6,240	0	5,460	0	3,640	0	24,960	
	UNDP	Project costs	50,000	0	0	38,000	0	0	0	0	0	0	88,000
		Support costs	4,500	0	0	3,420	0	0	0	0	0	0	7,920
Funds approved by ExCom (US\$)		Project costs	124,000	0	0	0	86,000*	0	42,000*	0	0	252,000	
		Support costs	14,120	0	0	0	9,660*	0	5,460*	0	0	29,240	
Total funds recommended for approval at this meeting (US \$)		Project costs	0	0	0	0	0	0	0	0	28,000*	28,000	
		Support costs	0	0	0	0	0	0	0	0	3,640*	3,640	

\* The second, third and fourth (final) tranches should have been submitted in 2016, 2018 and 2020, respectively.

<b>Secretariat's recommendation:</b>	Blanket approval
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## PROJECT DESCRIPTION

1. On behalf of the Government of Barbados, UNEP as the lead implementing agency has submitted a request for funding for the fourth and final tranche of stage I of the HCFC phase-out management plan (HPMP), at the amount of US \$28,000, plus agency support costs of US \$3,640 for UNEP only.<sup>2</sup> The submission includes a progress report on the implementation of the third tranche, the verification report on HCFC consumption for 2017 to 2021, and the tranche implementation plan for 2023.

### Report on HCFC consumption

2. The Government of Barbados reported a consumption of 0.49 ODP tonnes of HCFC in 2021, which is 87 per cent below the HCFC baseline for compliance. The 2017-2021 HCFC consumption is shown in table 1.

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

HCFC	2017	2018	2019	2020	2021	Baseline
<b>Metric tonnes (mt)</b>						
HCFC-22	32.92	24.92	30.97	15.9	8.96	64.68
HCFC-142b	0.63	0.00	0.00	0.00	0.00	2.06
<b>Total (mt)</b>	<b>33.55</b>	<b>24.92</b>	<b>30.97</b>	<b>15.90</b>	<b>8.96</b>	<b>66.74</b>
<b>ODP tonnes</b>						
HCFC-22	1.81	1.37	1.70	0.87	0.49	3.56
HCFC-142b	0.04	0.00	0.00	0.00	0.00	0.13
<b>Total (ODP tonnes)</b>	<b>1.85</b>	<b>1.37</b>	<b>1.70</b>	<b>0.87</b>	<b>0.49</b>	<b>3.69</b>

3. The overall HCFC consumption follows a decreasing trend since the implementation of the HPMP activities; however, there was an increase in 2019 due to the delayed import of refrigerants originally scheduled for 2018. In 2020 and 2021, due to reduced activities in the refrigeration servicing sector resulting from the restrictions imposed by the COVID-19 pandemic, HCFC consumption significantly decreased to levels below average.

### *Country programme (CP) implementation report*

4. The Government of Barbados 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.

### *Verification report*

5. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2017 to 2021 was correct (as shown in table 1 above). The verification report also recommended continued awareness and information exchange on ODS trade controls with customs authorities; ongoing training of customs and licensing authorities, including inclusion of the latest Montreal Protocol control measures in the training curriculum; and training of customs brokers and importers on ODS data reporting and Harmonized System (HS) codes and classifications. UNEP confirmed that these activities would be included in the present tranche to be implemented in 2023 and would continue in stage II of the HPMP.

<sup>2</sup> As per the letter of 3 August 2022 from the Ministry of Environment and National Beautification, Green and Blue Economy (MENB) of Barbados to the Secretariat.

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

*Legal framework*

6. The Government of Barbados passed Customs Order 2009 and Customs Order (amendment) 2010 to establish the licensing and quota system for the import/export of all ODS including HCFCs. Following the ratification of the Kigali Amendment on 19 April 2018, the Government of Barbados introduced a licensing system for import and export of HFCs and HFC blends through the 2020 Amendment to the Order. The development of labelling and safety standards for the refrigeration air-conditioning (RAC) sector was delayed due to challenges in the delivery of final outputs by the consultant that resulted in the hiring of a new consultant; administrative changes in management of the national ozone unit (NOU); and COVID-19-related restrictions; this activity is now expected to be completed by 31 December 2023.

*Refrigeration servicing sector*

7. The following activities have been conducted:

- (a) A meeting was held with the members of the Executive Board of the Customs Broker Association in March 2022 to discuss the development and implementation of sensitization measures relating to ODS controls and accurate data reporting; 12 customs brokers (including six females) were trained in June 2022 on ODS monitoring and reporting aspects; a meeting was scheduled with the Comptroller of Customs in August 2022 to discuss an implementation schedule for the training of 30 customs officers on ODS import/export procedures, and HCFC data collection and monitoring;
- (b) Two sensitization training sessions on HCFC phase-out and alternative technologies, illegal trade and good service practices in RAC (storage and transportation of refrigerants, demonstration of the use of identifiers) were organized in March and April 2022 with 42 importers (including two females) from various importing companies; meetings with service agencies and associations to initiate their participation in the certification are expected to take place by the end of 2022. This activity was delayed due to challenges in setting up processes for coordination with national certification authorities including the Technical Vocational Education and Training (TVET) Council; the NOU is following up on this matter;
- (c) An advertisement on HCFC phase-out was published in a newspaper. Information to promote training of importers was also disseminated. Development of print and electronic materials, flyers/brochures and public service announcements about HCFC phase-out, targeting different stakeholders, including general public, is in progress and expected to be completed by December 2022.

*Project implementation and monitoring*

8. The NOU, established within the Ministry of Environment and National Beautification (MENB), has taken full responsibility to provide project management oversight and coordination for the implementation of activities under the HPMP, as there is no separate project implementation and monitoring unit. The total expenditures incurred are below the budgeted level of US \$12,000.

Level of fund disbursement

9. As of August 2022, of the US \$252,000 approved so far, US \$220,505 had been disbursed (US \$132,505 for UNEP and US \$88,000 for UNDP), as shown in table 2. The balance of US \$31,495 is expected to be disbursed by December 2022.

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

Tranche		UNEP	UNDP	Total	Disbursement rate (%)
First	Approved	74,000	50,000	124,000	100
	Disbursed	74,000	50,000	124,000	
Second	Approved	48,000	38,000	86,000	100
	Disbursed	48,000	38,000	86,000	
Third	Approved	42,000	0	42,000	25
	Disbursed	10,505	0	10,505	
Total	<b>Approved</b>	<b>164,000</b>	<b>88,000</b>	<b>252,000</b>	<b>88</b>
	<b>Disbursed</b>	<b>132,505</b>	<b>88,000</b>	<b>220,505</b>	
	Balance	31,495	0	31,495	

Implementation plan for the fourth and final tranche of the HPMP

10. The following activities will be implemented between January 2023 and December 2023:
- Finalization of the following policy measures: the ban on the import of HCFC-based equipment by 1 January 2024, standards for labelling and safety requirements for the RAC sector, feasibility of incentives for the introduction of HCFC-free RAC equipment and licensing and certification of technicians (US \$5,000);
  - Training of 20 customs officers in identification of refrigerants and refrigerant-based products, and information updates on ODS trade controls, and sensitization sessions for 30 technicians on the National Vocational Qualification (NVQ)/Caribbean Vocational Qualification (CVQ) certification programme (continuation from the third tranche) (US \$10,000);
  - Development and distribution of education and awareness material on HCFC phase-out for stakeholders and general public (e.g., brochures/flyers for air-conditioning equipment for new environment-friendly buildings, on the banning of the importation of HCFC-based equipment, and on the proposed standards developed for the RAC sector) (US \$8,000); and
  - Project management for monitoring, evaluating and reporting activities relating to the HPMP (US \$5,000).

**SECRETARIAT'S COMMENTS AND RECOMMENDATION****COMMENTS**Reasons for delays in the submission of the fourth tranche of the HPMP

11. UNEP informed that the delays in the submission of the fourth tranche of stage I for Barbados were mainly due to the restrictions imposed by the COVID-19 pandemic and to internal administrative challenges; and that as of date, many of those administrative issues have been addressed and the activities for stage I would be implemented in a timely manner in the future.

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

12. The Government of Barbados has already issued HCFC import quotas for 2022 at 1.73 ODP tonnes, which is lower than the Montreal Protocol control targets.

### *Refrigeration servicing sector*

13. Upon request by the Secretariat, UNEP informed that the delays in the implementation of training programmes for customs and enforcement officers were mainly due to lower levels of participation. Following discussions with the Comptroller of Customs in August 2022, UNEP expects that those issues would be resolved. UNEP further mentioned that the NOU is carefully monitoring this matter noting the recommendations made in the verification report on continued training of customs and enforcement officers.

### Completion of stage I

14. The completion date for stage I of the HPMP for Barbados was originally planned for 31 December 2021. At the 88<sup>th</sup> meeting, the Government of Barbados submitted a request for extension of the completion date of stage I to 31 December 2023. Subsequently, the Executive Committee *inter alia* allowed the country, on an exceptional basis, to continue implementation of the outstanding activities related to stage I and requested that a detailed implementation plan, with the request for the remaining tranche be submitted to the 91<sup>st</sup> meeting (decisions 88/29 and 90/23). In view of the delays in submission of the fourth tranche, extending the Agreement of stage I to the requested date would allow the country to complete the remaining activities as contained in the revised action plan.

### Gender policy implementation<sup>3</sup>

15. The Government of Barbados, UNEP and UNDP are fully committed to implementing the gender policy of the Multilateral Fund. The Government would work closely with training institutions and the RAC association to implement measures and follow up regularly to maximise participation of women in all HPMP activities. The country currently has one female instructor at the Samuel Jackman Prescod Institute of Technology (SJPI) who is also a graduate of the diploma in the RAC programme. In addition, to date, two female student technicians at the SJPI were recipients of the National Ozone-Depleting Substances Phase-out Support scholarship that is offered by the NOU to students enrolled in their second year of study in the diploma in the RAC programme. The Government would continue to provide gender-disaggregated data, to the extent feasible, as a part of future HPMP reports.

### Sustainability of the HCFC phase-out and assessment of risks

16. The Government of Barbados continues to expedite the implementation of training programmes for enforcement officers on the monitoring and controlling of HCFCs and would undertake additional measures to strengthen the regulation enforcement mechanisms during stage I and stage II of the HPMP. The Government also continues to implement activities for strengthening the capacity of service technicians on the adoption of good servicing practices, including maximising recovery and reuse of HCFCs and the safe use of low-global-warming-potential (GWP) alternative technologies to HCFCs. Additionally, the Government is implementing awareness activities relating to HCFC phase-out, particularly to HPMP implementation and facilitating the adoption of low-GWP alternatives to HCFCs. While there could be risks of slower project implementation due to administrative delays in approval processes, the Government and UNEP are addressing these risks with periodic project review and monitoring procedures and changes in methods that would result in expedited implementation. Through a combination of capacity building of the service sector, awareness activities and enforcement mechanisms on controlling and monitoring HCFCs, HCFC phase-out is expected to be sustained. The implementation challenges due to constraints

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<sup>3</sup> In line with decision 84/92(d), decision 90/48(c) encouraged bilateral and implementing agencies to continue ensuring that the operational gender mainstreaming policy was applied to all projects, taking into consideration the specific activities presented in table 2 of document UNEP/OzL.Pro/ExCom/90/37.

imposed by the COVID-19 pandemic were addressed through increased adoption of online meetings and training workshops.

### Conclusion

17. Barbados has an operational licensing and quota system and the verified HCFC consumption for 2017-2021 is well below the Montreal Protocol control targets and the targets in the country's Agreement with the Executive Committee. Activities for the servicing sector covering training on good service practices and safe use of low-GWP alternatives continue to be implemented; although there were delays experienced due to administrative changes in the Government institutions and challenges imposed by the COVID-19 pandemic, the Government of Barbados is taking different steps to expeditiously complete the implementation of remaining activities in the service sector and for capacity building and training of customs and enforcement officers. Recommendations of the verification report related to the training of customs and enforcement officers on ODS trade monitoring and control and the continued implementation of training of customs brokers and importers on ODS data reporting and HS codes and classifications would be implemented under the fourth tranche of stage I and continue during stage II of the HPMP. The overall fund disbursement for stage I has reached 88 per cent and associated activities are expected to be completed by 31 December 2023. Stage II of the HPMP has also been submitted to the present meeting.

### **RECOMMENDATION**

18. The Fund Secretariat recommends that the Executive Committee:

- (a) Take note of the progress report on the implementation of the third tranche of stage I of the HCFC phase-out management plan (HPMP) for Barbados; and
- (b) Approve, on an exceptional basis, given delay in implementing phase-out activities, and noting that no further extension of project implementation would be requested, the extension of the date of completion of stage I of the HPMP for Barbados to 31 December 2023.

19. The Fund Secretariat further recommends blanket approval of the fourth and final tranche of stage I of the HPMP for Barbados, and the corresponding 2023 tranche implementation plan, at the funding level shown in the table below.

	<b>Project title</b>	<b>Project funding (US \$)</b>	<b>Support costs (US \$)</b>	<b>Implementing agency</b>
(a)	HCFC phase-out management plan (stage I, fourth tranche)	28,000	3,640	UNEP

**PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS**

**Barbados**

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HCFC phase-out plan (stage II)	UNEP (lead), UNDP

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2021	0.49 ODP tonnes
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2021</b>	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Serviceing				
HCFC-22					0.49				0.49
HCFC-142b									0.00

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009-2010 baseline:	3.69	Starting point for sustained aggregate reductions:	3.69
<b>CONSUMPTION ELIGIBLE FOR FUNDING</b>			
Already approved:	1.29	Remaining:	2.40

<b>(V) ENDORSED BUSINESS PLAN</b>		<b>2022</b>	<b>2023</b>	<b>2024</b>
UNEP	ODS phase-out (ODP tonnes)	0.48	0.00	0.00
	Funding (US \$)	42,828	0	0
UNDP	ODS phase-out (ODP tonnes)	0.00	0.00	0.00
	Funding (US \$)	0	0	0

<b>(VI) PROJECT DATA</b>			<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028-2029</b>	<b>2030</b>	<b>Total</b>
Montreal Protocol consumption limits (ODP tonnes)			2.40	2.40	2.40	1.20	1.20	1.20	1.20	0.00	n/a
Maximum allowable consumption (ODP tonnes)			2.40	2.40	2.40	1.20	1.20	1.20	1.20	0.00	n/a
Project costs requested in principle (US \$)	UNEP	Project costs	36,000	0	0	52,500	0	134,000	0	75,500	298,000
		Support costs	4,680	0	0	6,825	0	17,420	0	9,815	38,740
	UNDP	Project costs	125,000	0	0	97,000	0	0	0	0	222,000
		Support costs	11,250	0	0	8,730	0	0	0	0	19,980
Total project costs recommended in principle (US \$)			161,000	0	0	149,500	0	134,000	0	75,500	520,000
Total support costs recommended in principle (US \$)			15,930	0	0	15,555	0	17,420	0	9,815	58,720
Total funds recommended in principle (US \$)			176,930	0	0	165,055	0	151,420	0	85,315	578,720

<b>(VII) Request for approval of funding for the first tranche (2022)</b>		
<b>Implementing agency</b>	<b>Funds recommended (US \$)</b>	<b>Support costs (US \$)</b>
UNEP	36,000	4,680
UNDP	125,000	11,250
<b>Total</b>	<b>161,000</b>	<b>15,930</b>

<b>Secretariat's recommendation:</b>	Individual consideration
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## PROJECT DESCRIPTION

### Background

20. On behalf of the Government of Barbados, 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 \$578,720, consisting of US \$298,000, plus agency support costs of US \$38,740 for UNEP and US \$222,000, plus agency support costs of US \$19,980 for UNDP, as originally submitted.<sup>4</sup> The implementation of stage II of the HPMP will phase out the remaining consumption of HCFCs by 2030.

21. The first tranche of stage II of the HPMP being requested at this meeting amounts to US \$176,930, consisting of US \$36,000, plus agency support costs of US \$4,680 for UNEP and US \$125,000, plus agency support costs of US \$11,250 for UNDP, as originally submitted.

### Status of implementation of stage I of the HPMP

22. Stage I of the HPMP for Barbados was approved at the 69<sup>th</sup> meeting<sup>5</sup> to phase out 1.29 ODP tonnes of HCFCs used in RAC servicing sector to meet the 35 per cent reduction from the baseline by 2020, at a total cost of US \$280,000, plus agency support costs. An overview of the implementation of stage I, including the analysis of HCFC consumption; progress and financial reports on the implementation; and the request for the fourth and final tranche submitted to the current meeting, is available in paragraphs 1 to 19 of the present document.

### Stage II of the HPMP

#### Remaining consumption eligible for funding

23. After deducting 1.29 ODP tonnes of HCFCs associated with stage I of the HPMP, the remaining consumption eligible for funding in stage II amounts to 2.40 ODP tonnes of HCFC-22.

#### Sector distribution of HCFCs

24. There are approximately 250 technicians and more than 95 workshops in the servicing sector, consuming HCFC-22 to service unitary and split systems, commercial cold stores, chillers, air-conditioning (AC) units and heat pumps, as shown in table 3. HCFC-22 represents 8.7 per cent of the refrigerants used in the servicing sector, and the other refrigerants are HFCs and HFC blends, including R-410A (54.1 per cent), HFC-134a (28.4 per cent), R-404A (6.7 per cent), and other miscellaneous refrigerants (less than 2 per cent).

**Table 3. Estimation of demand for HCFC-22 in the RAC servicing sector in Barbados in 2020**

Sector/ Application	Equipment inventory	Average charge (kg)	HCFC bank (mt)	Estimated bank refilled during servicing (%)	Annual need for servicing (mt)
	(a)	(b)	(c) = (a)*(b)/ 1,000	(d)	(c)*(d)
Room AC (unitary and split)	15,025	2.30	34.50	27	9.33
Commercial AC (rooftop, multi-split, chillers)	1,337	14.00	18.72	27	5.05
Commercial refrigeration (medium condensing units)	100	28.00	2.80	50	1.40

<sup>4</sup> As per the letter of 3 August 2022 from the MENB of Barbados to the Secretariat.

<sup>5</sup> Decision 69/21 and document UNEP/OzL.Pro/ExCom/69/21

Sector/ Application	Equipment inventory	Average charge (kg)	HCFC bank (mt)	Estimated bank refilled during servicing (%)	Annual need for servicing (mt)
	(a)	(b)	(c) = (a)*(b)/ 1,000	(d)	(c)*(d)
Industrial refrigeration (medium to large condensing units, centralized systems)	5	420.00	2.10	5	0.11
Chillers	2	89.00	0.18	5	0.01
<b>Total</b>	<b>16,469</b>	<b>n/a</b>	<b>58.30</b>	<b>n/a</b>	<b>15.90</b>

#### Phase-out strategy in stage II of the HPMP

25. Stage II of the HPMP will focus on strengthening the HCFC licensing and quota system, implementing prohibition of import of HCFC-based equipment, implementing legal instruments related to the safe use of new technologies, further strengthening the capacity of the servicing sector on good service practices and adopting low-GWP technologies, and establishing a certification scheme for technicians and awareness and outreach programmes on HPMP implementation including promotion of low-GWP technologies.

#### Proposed activities in stage II of the HPMP

26. Stage II proposes the following activities:

- (a) *Improved policy, legislative and regulatory framework:* Continuation of the certification programme established in stage I, including a study on the development of a system for registration of service companies, workshops and other users of HCFCs; four sensitization meetings with importers of equipment, service shop owners and technicians, RAC associations, management of importers of large RAC equipment (hotel management personnel, construction contractors) and customs officers/brokers for sharing information about the ban on import of HCFC-based RAC equipment and other legislative measures relating to HCFC phase-out; preparation of the ban on the import of all HCFCs from 1 January 2030 excluding servicing tail exemption as per Montreal Protocol obligations (UNEP) (US \$36,000);
- (b) *Strengthening control and monitoring of import of HCFCs and HCFC-based equipment:* Procurement of at least four identifiers; training of trainers on enforcement, and of 50 customs officers (including training material and trainer costs) on control and monitoring of HCFCs and HCFC-based equipment and other matters identified in the verification report related to information sharing and ODS controls; feasibility study on updating the customs officers' internal training curriculum with the integration of Montreal Protocol-related material; training of 25 customs brokers on import/export regulations and HCFC monitoring and reporting (UNDP) (US \$22,000) and (UNEP) (US \$36,000);
- (c) *Capacity building for refrigeration technicians and vocational schools:* Training of trainers and of 80 technicians on good service practices and safe use of low-GWP alternative technologies to HCFCs; training for waste brokers on good practices relating to the safe end-of-life disposal of equipment and recovery and reuse of refrigerants; upgrading of the code of practice of servicing to make it user-friendly and interactive; procurement of recovery equipment (e.g., recovery machines, cylinders, tools and accessories for servicing) to the NOU, purchase of training equipment (e.g., training board, recovery cylinders, vacuum pump, manifold gauges) and supplies to be used to facilitate training to the Barbados Vocational Training Board (BVTB) and equipment upgrade to SJPI (UNEP) (US \$101,000) and (UNDP) (US \$200,000); and

- (d) *Public and stakeholders awareness on HPMP activities and low-GWP alternative technologies to HCFCs*: Electronic and/or printed material to be developed and distributed to the public through television, print, radio and social media platforms; information tools and other information material for end-users (commercial sector, construction sector, hotels, medical facilities); technical seminars with refrigeration technicians; technical seminars in the hotel and construction sector (with the management and procurement officers); promotion of the Multilateral Fund gender mainstreaming policy to the public (UNEP) (US \$75,000).

#### *Project monitoring*

27. 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 \$50,000, and includes consultants and project personnel to support HPMP implementation, monitoring and reporting (US \$45,000), travel, missions and visits to vocational schools, servicing centres, ports of entry, and site visits (US \$2,500), and miscellaneous (US \$2,500).

#### *Gender policy implementation<sup>6</sup>*

28. As mentioned in paragraph 15 above, Barbados will continue to implement activities in line with the Multilateral Fund's policy on gender mainstreaming and encourage women to be involved in careers in the RAC servicing sector. In line with this objective, a campaign will be organized to highlight the importance of the RAC sector and the contributions that the SJPI's female instructor referred to in paragraph 15 and others are making to the RAC servicing sector. The campaign would also seek to showcase the SJPI and the BVTB RAC programmes as viable options for potential female students to choose as a course of study. Social media and other media channels will be used where possible to broaden outreach. Further, to promote gender mainstreaming, invitations to meetings, trainings and consultancies are extended to all persons, both men and women, working in the refrigeration servicing sector and to stakeholders in related industries/sectors, e.g., customs brokers and clerks.

#### Total cost of stage II of the HPMP

29. The total cost of stage II of the HPMP for Barbados has been estimated at US \$520,000 (plus agency support costs), as originally submitted, for achieving a 100 per cent reduction from its HCFC baseline consumption by 2030. The proposed activities and cost breakdown are summarized in table 4.

**Table 4. Total cost of stage II of the HPMP for Barbados as submitted**

<b>Activity</b>	<b>Agency</b>	<b>Cost (US \$)</b>
Improved policy, legislative and regulatory framework	UNEP	36,000
Strengthening control and monitoring of import of HCFCs and HCFC-based equipment	UNEP/UNDP	58,000
Capacity building for refrigeration technicians and vocational schools	UNEP/UNDP	301,000
Public and stakeholders awareness	UNEP	75,000
Monitoring and reporting	UNEP	50,000
<b>Total</b>		<b>520,000</b>

<sup>6</sup> In line with decision 84/92(d), decision 90/48(c) encouraged bilateral and implementing agencies to continue ensuring that the operational gender mainstreaming policy was applied to all projects, taking into consideration the specific activities presented in table 2 of document UNEP/OzL.Pro/ExCom/90/37.

Activities planned for the first tranche of stage II

30. The first funding tranche of stage II of the HPMP in the total amount of US \$161,000 will be implemented between January 2023 and December 2024 and will include the following activities:

- (a) *Improved policy, legislative and regulatory framework*: Four sensitization meetings with importers of RAC equipment, service shop owners, refrigeration technicians, RAC association, refrigeration and construction engineers, management at the hotels, construction and other commercial sectors who import RAC equipment on their own, and customs officers and brokers, on HPMP activities and legislative measures to be introduced, including relating to controls and reduction in use of HCFC-based equipment, including the ban on import of HCFC-based RAC equipment, and other HPMP-related matters. The key takeaways from the meetings will also be published (UNEP) (US \$10,000);
- (b) *Strengthening control and monitoring of import of HCFCs and HCFC-based equipment*: Purchase of two identifiers and updated training to Customs Department on the use and management of the identifiers (UNDP and UNEP) (US \$11,000 for UNDP only);
- (c) *Capacity building for vocational schools for training technicians*: Procurement and distribution of equipment (e.g., recovery machines, recovery cylinders, leak detectors, tools and accessories for servicing) to BVTB for the training of RAC technicians (UNDP and UNEP) (US \$114,000 for UNDP only);
- (d) *Public and stakeholders awareness*: Development and distribution of electronic and/or printed material through different audio-visual media, including social media for greater outreach, on HPMP activities and adoption of low-GWP technologies; distribution of information relating to HPMP and related activities to main stakeholders with the focus on end-users (e.g., commercial sector, construction sector, hotels, medical facilities); one technical seminar for about 10 refrigeration technicians on refrigeration servicing activities under the HPMP and technical matters; and one seminar for users in the hotel and construction sectors on HPMP activities and low-GWP alternative technologies (UNEP) (US \$14,500); and
- (e) *Project monitoring, evaluation, and reporting* (UNEP) (US \$11,500): Consultants/project personnel to support HPMP implementation including maintaining the monitoring and reporting mechanism (US \$9,000); travel, missions and visits to vocational schools and servicing centres (US \$2,500).

**SECRETARIAT'S COMMENTS AND RECOMMENDATION**

**COMMENTS**

31. 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

32. The Government of Barbados 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.<sup>7</sup> To achieve the above targets, the Government would continue strengthening implementation of regulations to control supply of HCFCs and prohibit import of HCFC-based RAC equipment from 2024; undertake capacity building and training of refrigeration technicians and the refrigeration association; implement recovery programmes for HCFCs involving waste brokers and service technicians; and implement awareness and outreach programmes for the adoption of low-GWP alternative technologies. The Government has also indicated that it expects to maintain consumption levels well below stage II targets for the period of 2023 to 2030.

33. In line with decision 86/51, to allow for consideration of the final tranche of its HPMP, the Government of Barbados 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 Barbados for the 2030-2040 period.

34. Noting the decreasing trend in HCFC consumption and the levels of use of HCFC-22 in the servicing sector in the country, the Secretariat discussed with UNEP the possibility of lowering the 2023-2024 reduction targets included in the draft Agreement as submitted, considering that those targets were much higher than the prevailing consumption levels and the maximum annual consumption of 1.85 ODP tonnes for the 2017-2019 period and that the quota for 2022 was 1.73 ODP tonnes. UNEP explained that the significant reduction in HCFC consumption in 2020 and 2021 was due to extraordinary circumstances related to the COVID-19 pandemic. During consultations with the national stakeholders, different elements of stage II, including targets for the future years, were discussed; the potential risks of increase in demand for HCFC-22 in 2023 and 2024 were assessed and the Government considers that this poses challenges to the country's ability to agree to stage II targets lower than the Montreal Protocol limits; based on the above, the Government of Barbados decided to maintain the targets for 2023 and 2024 at levels equal to the Montreal Protocol limits and this was approved by the Cabinet of Ministers.

#### Sustainability of HCFC phase-out and assessment of risks

35. The Secretariat requested additional information on the sustainability of HCFC phase-out including project implementation risk assessment and mitigation, and the implementation of regulations for the certification of technicians and the recovery and reuse of refrigerants, all of which are important elements for a sustainable transition to HCFC-free environment friendly alternative technologies.

36. UNEP informed that risks to the successful implementation of stage II of the HPMP for Barbados were identified as part of their overall programme risk assessment process, noting that Barbados is a technology receiver of products that are alternatives to HCFCs. Stage II activities are designed to facilitate the adoption of low-GWP alternative technologies to HCFCs through awareness and information outreach to different stakeholders; infrastructure support to technical institutions for sustained technician training; inclusion of good codes of practices in the training curriculum of service technicians; and processes for end-of-life management of HCFC-based equipment (e.g., promoting recovery and reuse of refrigerants, capacity building of waste brokers). Other risks associated with mitigating project implementation delays are addressed through continued periodic monitoring and review with the NOU. Further, UNEP informed that the NOU is working with the customs department to include material on the monitoring and control of imports of HCFCs and HCFC-based products to the customs and enforcement training curriculum which would result in a larger number of customs officers being trained on Montreal Protocol provisions.

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<sup>7</sup> 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.

Through these interventions, risks to the successful implementation of stage II of the HPMP for Barbados are mitigated.

37. To ensure safe servicing practices and recovery and reuse of refrigerants, UNEP explained that the Government of Barbados would, in the future, consider regulations for the certification of technicians on the servicing of equipment using flammable and toxic refrigerants since such regulations require careful execution and robust monitoring. This could be done while developing the certification process and regulations relating to the safe adoption of low-GWP refrigerants. During stage II of the HPMP, the Government would undertake steps during training programmes and awareness and information outreach activities to encourage service technicians to maximise recovery and reuse of HCFCs including during decommissioning of old equipment and to adopt safe servicing practices while servicing equipment using low-GWP refrigerants. UNEP also confirmed that retrofit of equipment using flammable refrigerants is not undertaken in the country and is not encouraged.

#### Technical and cost-related issues

38. The Secretariat requested clarifications on the implementation of the certification system for technicians noting that the activities in stage II of the HPMP can build on the activities undertaken in stage I and in the long run, these activities would facilitate good service practices and safe adoption of low-GWP alternatives. UNEP explained that the activities related to the certification of technicians planned under stage II would primarily involve developing a census of technicians which, in the future, can facilitate a full-fledged certification system, and that the Government is also considering policies related to the control on the sale of refrigerants to service technicians and on the servicing of equipment using low-GWP refrigerants by certified technicians.

39. On equipment support for technical institutions and the recovery and recycling programme, UNEP explained that higher recovery and reuse of HCFCs would be ensured through the implementation of training of service technicians on good practices, awareness and outreach programmes, and involvement of waste brokers; active involvement from the SJPI and the BVTB that would be provided with support to upgrade their training facilities for service sector training is expected to result in greater adoption of good servicing practices, including recovery and recycling of refrigerants. Further, in close consultation with the NOU through UNDP, all efforts will be undertaken to cost-effectively procure equipment for recovery and reuse including other equipment for training facilities at the SJPI and the BVTB and maximise impact of these activities.

#### Total project cost

40. The total cost for stage II of the HPMP amounts to US \$520,000, 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 \$161,000.

#### Impact on the climate

41. 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 CO<sub>2</sub>-equivalent tonnes. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by Barbados, 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

42. With regard to co-financing, the Government of Barbados provides in-kind contribution in the form of space and utilities for the NOU office, as well as managerial support provided by the Senior Environmental Officer and the Permanent Secretary of the MENB for NOU operations.

## 2022-2024 draft business plan of the Multilateral Fund

43. UNEP and UNDP are requesting US \$520,000, plus agency support costs, for the implementation of stage II of the HPMP for Barbados. The total requested value of US \$176,930, including agency support costs for the period 2022–2024, is US \$134,102 above the amount in the business plan. UNEP informed that the UNDP business plan for 2022–2024 inadvertently did not include funding for stage II for Barbados, though there was a plan to submit it.

## Draft Agreement

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

## RECOMMENDATION

45. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for Barbados for the period from 2022 to 2030 for the complete phase-out of HCFC consumption, in the amount of US \$578,720, consisting of US \$298,000, plus agency support costs of US \$38,740 for UNEP and US \$222,000, plus agency support costs of US \$19,980 for UNDP, 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 Barbados:
  - (i) 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;
  - (ii) To ban the imports of HCFC-based equipment by 1 January 2024;
- (c) Deducting 2.40 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (d) Approving the draft Agreement between the Government of Barbados 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;
- (e) That, to allow for consideration of the final tranche of its HPMP, the Government of Barbados 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 Barbados for the 2030-2040 period;  
and
- (f) Approving the first tranche of stage II of the HPMP for Barbados, and the corresponding tranche implementation plan, in the amount of US \$176,930, consisting of US \$36,000, plus agency support costs of US \$4,680 for UNEP, and US \$125,000, plus agency support costs of US \$11,250 for UNDP.



## Annex I

### **DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF BARBADOS 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 Barbados (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 rows 4.1.3 and 4.2.3 (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;
  - (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; and
  - (v) Changes in alternative technologies, on the understanding that any submission for such a request would identify the associated incremental costs, the potential impact to the climate, and any differences in ODP tonnes to be phased out if applicable, as well as confirm that the Country agrees that potential savings related to the change of technology would decrease the overall funding level under this Agreement accordingly;
- (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 UNDP 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	3.56
HCFC-142b	C	I	0.13
Total	C	I	3.69

### 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)	2.40	2.40	2.40	1.20	1.20	1.20	1.20	0.00	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	2.40	2.40	2.40	1.20	1.20	1.20	1.20	0.00	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	36,000	0	0	52,500	0	134,000	0	75,500	298,000
2.2	Support costs for Lead IA (US \$)	4,680	0	0	6,825	0	17,420	0	9,815	38,740
2.3	Cooperating IA (UNDP) agreed funding (US \$)	125,000	0	0	97,000	0	0	0	0	222,000
2.4	Support costs for Cooperating IA (US \$)	11,250	0	0	8,730	0	0	0	0	19,980
3.1	Total agreed funding (US \$)	161,000	0	0	149,500	0	134,000	0	75,500	520,000
3.2	Total support costs (US \$)	15,930	0	0	15,555	0	17,420	0	9,815	58,720
3.3	Total agreed costs (US \$)	176,930	0	0	165,055	0	151,420	0	85,315	578,720
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)									2.27
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)									1.29

Row	Particulars	2022	2023	2024	2025	2026	2027	2028-2029	2030	Total
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)									0.00
4.2.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)									0.13
4.2.2	Phase-out of HCFC-142b to be achieved in the previous stage (ODP tonnes)									0.00
4.2.3	Remaining eligible consumption for HCFC-142b (ODP tonnes)									0.00

\*Date of completion of stage I as per stage I Agreement: 31 December 2023.

### 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. The National Ozone Unit (NOU), located within the Policy Research, Planning and Information (PRPI) Unit of the Ministry of Environment and National Beautification, will be responsible for the day-to-day execution of project activities.
2. In carrying out this function, the NOU will follow the supervision and reporting procedures established by the Ministry. The NOU is headed by the National Ozone Officer, who reports directly to the Senior Environmental Officer within PRPI Unit Permanent Secretary. The NOU develops work plans on a quarterly basis for internal monitoring of the Plan activities. There are also bi-weekly meetings with the Senior Environmental Officer to follow up on the progress of the Plan.
3. Periodically the Government, in collaboration with the Lead IA will convene monitoring missions to provide independent verification of project outputs, achievement of targets and financial management.

#### **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.

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