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EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL Eighty-fourth Meeting Montreal, 16–20 December 2019

#### PROJECT PROPOSALS: TUNISIA

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, third and final tranche) France, UNEP and UNIDO
- HCFC phase-out management plan (stage II, first tranche) UNEP and UNIDO

<sup>\*</sup>Reissued for technical reasons on 22 November 2019

# PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

# Tunisia

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE	
HCFC phase out plan (Stage I)	France, UNEP, UNIDO (lead)	72 <sup>nd</sup>	15% by 2018	

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2018	25.91 (ODP tonnes)
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(III) LATEST COU	(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2018
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123					0.01				0.01
HCFC-22					25.91				25.91
HCFC-141b in imported pre-blended polyols		7.15							7.15

(IV) CONSUMPTION DATA (ODP tonnes)						
2009 - 2010 baseline: 40.7 Starting point for sustained aggregate reductions: 45.7						
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)						
Already approved:	10.6	Remaining:	35.1			

(V) BUSINESS PL	AN	2019	Total
France	ODS phase-out (ODP tonnes)	0.41	0.41
	Funding (US \$)	78,769	78,769
UNEP	ODS phase-out (ODP tonnes)	0.09	0.09
	Funding (US \$)	16,950	16,950
UNIDO	ODS phase-out (ODP tonnes)	0.64	0.64
	Funding (US \$)	116,003	116,003

(VI) PRO	(VI) PROJECT DATA		2014	2015	2016	2017	2018	2019	2020	Total
Montreal I	Protocol consu	mption limits	40.70	36.63	36.63	36.63	36.63	36.63	26.46	n/a
Maximum tonnes)	allowable con	sumption (ODP	40.70	36.63	36.63	36.63	34.60	34.60	25.91	n/a
Agreed funding	UNIDO	Project costs	376,920	0	71,038	0	0	57,500	0	505,458
(US \$)		Support costs	26,384	0	4,973	0	0	4,025	0	35,382
	UNEP	Project costs	30,000	0	55,000	0	0	15,000	0	100,000
		Support costs	3,900	0	7,150	0	0	1,950	0	13,000
	France	Project costs	38,000	0	38,000	0	0	19,000	0	95,000
		Support costs	4,940	0	4,940	0	0	2,470	0	12,350
	Funds approved by ExCom (US\$)	Project costs	444,920	0	164,038	0	0		0	608,958
Excom (c	, 5ψ)	Support costs	35,224	0	17,063	0	0		0	52,287
Total fund for approv	s requested	Project costs						91,500		91,500
meeting (U		Support costs						8,445		8,445

Secretariat's recommendation:	Blanket approval
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#### PROJECT DESCRIPTION

#### **Background**

- 1. On behalf of the Government of Tunisia, UNIDO as the lead implementing agency, has submitted a request for funding for the third and final tranche of stage I of the HCFC phase-out management plan (HPMP), as well as a request for stage II of the HPMP.
- 2. Stage I of the HPMP was approved at the  $72^{nd}$  meeting to meet the 15 per cent reduction by 2018 at a total cost of US \$1,966,209 (i.e., US \$1,100,195 plus agency support costs of US \$77,014 for UNIDO, US \$100,000 plus agency support costs of US \$13,000 for UNEP, and US \$600,000 plus agency support costs of US \$76,000 for the Government of France) to phase out 10.6 ODP tonnes of HCFCs (1.34 ODP tonnes of HCFC-141b and 9.26 ODP tonnes of HCFC-22) used in the solvent, residential air-conditioning (AC) manufacturing, and refrigeration servicing sectors. Funding tranches were approved at the  $72^{nd}$  and  $76^{th}$  meetings.
- 3. Stage I included a proposal for the conversion of the residential AC manufacturing sector to phase out 79.3 mt (4.36 ODP tonnes) of HCFC-22, at an agreed cost of US \$1,206,919 (including agency support costs for UNIDO and the Government of France). Subsequently, at the 83<sup>rd</sup> meeting, the Government of Tunisia through UNIDO, submitted a request to cancel the AC sector plan, noting that the beneficiary enterprises had technical and financial difficulties in converting to the agreed alternative technology (i.e., R-290); agreed to return balances associated with the sector plan to the Fund; and that the HCFC consumption associated with the sector plan would be considered as fully phased out, and would be deducted from the remaining eligible consumption. Based on this request, the Agreement with the Executive Committee was revised, and UNIDO and the Government of France were requested to return US \$898,976 at the 84<sup>th</sup> meeting (decision 83/28).
- 4. In line with decision 83/28(d), US \$875,764 had been returned to the Multilateral Fund at the 84<sup>th</sup> meeting.<sup>1</sup>

#### Third and final tranche of stage I of the HPMP

5. On behalf of the Government of Tunisia, UNIDO as the lead implementing agency, has submitted a request for funding for the third and final tranche of stage I of the HPMP, at a total cost of US \$99,945, consisting of US \$57,500, plus agency support costs of US \$4,025 for UNIDO, US \$15,000, plus agency support costs of US \$1,950 for UNEP, and US \$19,000, plus agency support costs of US \$2,470 for the Government of France.<sup>2</sup> The submission includes a progress report on the implementation of the second tranche, the verification reports on HCFC consumption for 2016-2018 and the tranche implementation plan for 2020.

#### Report on HCFC consumption

6. The Government of Tunisia reported a consumption of 25.91 ODP tonnes of HCFC in 2018, which is 36 per cent below the HCFC baseline for compliance. The 2014-2018 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Tunisia (2014-2018 Article 7 data)

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HCFC	2014	2015	2016	2017	2018	Baseline	
Metric tonnes							
HCFC-22	610.43	629.75	463.56	501.54	471.13	709.34	
HCFC-141b	8.46	8.46	0.00	8.25	0.00	14.57	
HCFC-142b	0.00	0.00	0.00	0.00	0.00	0.55	

<sup>&</sup>lt;sup>1</sup> UNEP/OzL.Pro/ExCom/84/4

<sup>&</sup>lt;sup>2</sup> As per the letter of 7 October 2019 from the Ministry of Local affairs and Environment of Tunisia to UNIDO.

HCFC	2014	2015	2016	2017	2018	Baseline
Sub-total (mt)	618.89	638.21	464.06	509.79	471.13	724.46
HCFC-141b in imported pre-blended	43.77	55.97	53.72	64.30	65.00	45.64**
polyols*						
ODP tonnes						
HCFC-22	33.57	34.67	25.50	27.58	25.91	39.01
HCFC-141b	0.93	0.93	0.00	0.91	0.00	1.61
HCFC-142b	0.00	0.00	0.00	0.00	0.00	0.04
Sub-total (ODP tonnes)	34.50	35.57	25.51	28.49	25.91	40.70
HCFC-141b in imported pre-blended	4.81	6.16	5.91	7.05	7.15	5.02**
polyols*						

<sup>\*</sup>Based on country programme (CP) data

- 7. HCFC-22 was the only HCFC imported in 2018, and represented 78 per cent of the overall consumption measured in ODP tonnes. The reduction in consumption for HCFC-22 is due to activities being implemented in the refrigeration servicing sector, and the phase-out of 79.3 mt (4.36 ODP tonnes) of HCFC-22 associated with the residential AC manufacturing enterprises which had converted to R-410A technology without funding from the Multilateral Fund.
- 8. HCFC-141b has been used as a solvent by two enterprises; one enterprise completed its conversion in 2016, while the other enterprise that had started its conversion used stocks of HCFC-141b from previous years. Consumption of HCFC-141b in pre-blended polyols has increased since 2016; a proposal for the phase-out of these substance was not included in stage I of the HPMP.

Country programme (CP) implementation report

9. The Government of Tunisia reported HCFC sector consumption data under the 2018 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

#### Verification report

10. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports, and verified the accuracy of the consumption data reported under Article 7 of the Protocol for 2016, 2017 and 2018. The verification concluded that Tunisia is in compliance with the targets set in its Agreement with the Executive Committee for 2016 to 2018.

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

#### Legal framework

- 11. The Government of Tunisia continues to implement a licensing and quota system for HCFC imports, which had been upgraded to an electronic licensing system in 2017.
- 12. In 2018, a National Commission for the protection of the ozone layer was established, comprising the HPMP Steering Group, the Legislative Group and the Technical Group. It will be responsible for setting import quotas for controlled substances, and establishing a licensing system for the import/export of HFCs. In addition, a national certification system for technicians and refrigeration and air-conditioning (RAC) servicing companies was established.
- 13. During the second funding tranche, 187 Customs officers were trained on the control and identification of ODS and ODS-based equipment, illegal trade and the use of Harmonized System code.

<sup>\*\*</sup>Starting point established in the Agreement with the Executive Committee

#### Manufacturing sector

#### Residential air-conditioning sector

14. Prior to the cancellation of the residential AC sector plan at the 83<sup>rd</sup> meeting, technical assistance and training of technicians was provided to the enterprises to assist in the selection of the most appropriate alternative technology, evaluating various factors and the properties of available low global-warming potential (GWP) alternative refrigerants. This sector plan will be submitted during the implementation of the Kigali Amendment, when cost-effective technologies are commercially available in the local market, and safety standards are in place.

#### Solvent sector

- 15. Stage I of the HPMP included the conversion of two companies (i.e. Société de Fabrication des Articles Pharmaceutiques (SOFAP) and Société Nationale des Chemins de Fer Tunisiens (SNCFT)) which use bulk HCFC-141b as a solvent. SNCFT had completed its conversion in 2016 and phased out 3.80 mt (0.41 ODP tonnes) of HCFC-141b.
- 16. With regard to SOFAP, where of 8.46 mt (0.93 ODP tonnes) HCFC-141b is used as a solvent for medical devices, two alternative solvents were tested and pilot-scale trials were subsequently conducted for Novec 71DE; a technical solution to address the high cost of the cleaning process using the selected alternative was found; purchase of equipment was concluded, commissioning was scheduled in October 2019 and final tests by December 2019. UNIDO reported that the enterprise had already started using the new solvent, therefore reducing its HCFC-141b consumption.

#### Refrigeration servicing sector

17. The training and certification programme offered by the five Tunisian training centres was updated and an evaluation of the equipment used by the centres was conducted; requirements for the certification of technicians were adjusted to meet European standards consistent with EN 13313 (European Union (EU) requirements for the qualification and certification of service technicians) and EN 378-1/2/3/4 (safety and environmental requirements for refrigeration systems). Sixty trainers from five vocational schools and 522 technicians were trained under the updated training and new certification system requirements. Four training centres received equipment (i.e., four sets of digital manifolds, two sets demonstration cooling units, two gas sensing units, one refrigerant gas identification unit, and flaring tools, for each centre).

#### *Project implementation and monitoring unit (PMU)*

18. Stage I of the HPMP for Tunisia does not include a separate PMU. The national ozone unit (NOU), is responsible for the overall implementation and monitoring of the HPMP, including coordination of stakeholder meetings, verification of HCFC consumption, and coordination of the technical vocational trainings. Funds allocated for project management under stage I (US \$ 50,000) were mainly used to hire technical consultants for the additional activities required to monitor the HPMP implementation. In view of this, a breakdown of expenses for the PMU is not provided.

#### Level of fund disbursement

19. As of October 2019, of the US \$608,958 approved so far as part of the revised Agreement, US \$406,437 had been disbursed (US \$283,913 for UNIDO, US \$55,000 for UNEP and US \$67,524 for the Government of France) as shown in Table 2. The balance of US \$202,521 will be disbursed in 2019-2020.

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

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Agonov	First tranche		Second	tranche	Total approved		
Agency	Approved*	Disbursed	Approved*	Disbursed	Approved*	Disbursed	
UNIDO	376,920	213,642	71,038	70,271	447,958	283,913	
UNEP	30,000	30,000	55,000	25,000	85,000	55,000	
France	38,000	38,000	38,000	29,524	76,000	67,524	
Total	444,920	281,642	164,038	124,795	608,958	406,437	
Disbursement rate (%)		63		76		67	

<sup>\*</sup>Based on the updated Agreement with the Executive Committee (decision 83/28). Funding associated with the residential AC sector plan will be returned to the 84<sup>th</sup> meeting.

#### Implementation plan for the third tranche of the HPMP

- 20. The following activities will be implemented during the third tranche:
  - (a) *Policy and regulatory*: Follow up on the adoption of subsidiary legislation to align the new certification system with the EU F-Gas Regulations, which would include minimum requirements for training centres and vocational schools (UNEP) (funding from previous tranche);
  - (b) Capacity-building for Customs: Conduct three workshops on ODS regulations enforcement and identification of refrigerants for 60 Customs and enforcement officers (UNEP) (US \$15,000, plus funding from previous tranche);
  - (c) Servicing sector: One workshop on good refrigeration servicing and technician certification for 50 trainers from vocational schools; one workshop to train 40 service technicians on safety issues; distribution of workshop materials (UNIDO) (US \$27,500 plus funding from previous tranche);
  - (d) Incentive programme for equipment replacement: Provide incentives to selected end-users to encourage the use of new alternatives refrigerants; one workshop to disseminate results of the end-user programme and implement an awareness campaign (France) (US \$19,000 plus funding from previous tranche); and
  - (e) *HPMP management and monitoring* (UNIDO): Through the NOU, preparation of a verification report for 2019 (US \$6,000); a national consultant/technical expert for the pilot conversion to low-GWP alternative in SOFAP (US \$5,000); two short-term national consultants and one international consultant for addressing safety issues workshop (US \$15,000); support for local travel/site visits in the country for the NOU (US \$4,000).

#### SECRETARIAT'S COMMENTS AND RECOMMENDATION

#### **COMMENTS**

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

#### Legal framework

21. The Government of Tunisia has already issued HCFC import quotas for 2019 at 29.15 ODP tonnes, which is 70 per cent lower than the HCFC baseline, and 16 per cent lower than the allowable amount under the Montreal Protocol for that year.

#### Manufacturing sector

22. UNIDO explained that, the main reason for the delay in the conversion of SOFAP was administrative, and related to procurement. This was addressed by allowing SOFAP to procure the equipment with UNIDO's supervision, after which UNIDO would disburse the funds retroactively upon commissioning. This was done within UNIDO's financial rules and regulations on an exceptional basis to allow the project to proceed without further delays. It was clarified that financial completion of the project is expected in December 2019.

#### Refrigeration servicing sector

- 23. With regard to the design of regulations for use of flammable refrigerants UNIDO clarified that activities had been initiated to develop subsidiary regulations regarding these. Presently, the content and curricula of service technicians' training already introduces elements related to safe handling of flammable refrigerants, and will be updated once new regulations are approved.
- 24. Regarding the incentive programme for equipment replacement to encourage the use of alternative refrigerants for selected end-users which was planned for the previous tranche, UNIDO explained that this will be implemented during the third tranche to merge funding from both tranches. Discussions have been held with end-users to identify a pilot demonstration site, further discussions are being held to finalise the selection, and the requirements for the beneficiaries of the programme.

#### Sustainability of the HCFC phase-out

25. The Government of Tunisia completed the phase-out of one enterprise in the solvent sector using low-GWP technology with final commissioning of the remaining enterprise by December 2019, which resulted in the total phase-out of 12.20 mt (1.34 ODP tonnes) of HCFC-141b. The Government is committed to ensuring the sustainability of the phase-out of HCFCs by ensuring the monitoring of imports of these substances through their e-licensing system, and the continued monitoring of the enterprises after conversion. After completion of the conversion of the solvent sector, the Government will put strict controls on the import of HCFC-141b for solvent applications. Activities in the servicing sector will continue to contribute to the sustainable reduction of HCFC-22.

#### Conclusion

26. The Secretariat noted that the HCFC consumption in Tunisia was already 25 per cent below the HCFC consumption targets in the Agreement with the Executive Committee. The country's licensing and quota system has been upgraded, and the implementation of the activities approved under stage I continues to progress. The completion of the investment activities in the solvent sector would resulted in the phase-out of 1.34 ODP tonnes of HCFC-141b. Training of Customs and refrigeration trainers and technicians, and certification of technicians will also continue under the third tranche. Fund disbursement exceeds the threshold for the release of the next tranche. The activities so far implemented and those planned under the third and final tranche of stage I complement those for stage II which has also been submitted to the present meeting.

#### RECOMMENDATION

- 27. The Fund Secretariat recommends that the Executive Committee:
  - (a) Takes note of the progress report on the implementation of the second tranche of stage I of the HCFC phase-out management plan of (HPMP) for Tunisia and of the Government's commitment to put strict controls on the import of HCFC-141b for solvent applications; and

- (b) Requests the Government of Tunisia, UNIDO, UNEP and the Government of France to submit progress reports on a yearly basis on the implementation of the work programme associated with the final tranche until the completion of the project, verification reports until approval of stage II of the HPMP and the project completion report to the second meeting of the Executive Committee in 2021.
- 28. The Fund Secretariat further recommends blanket approval of the third and final tranche of stage I of the HPMP for Tunisia, and the corresponding 2020 tranche implementation plan, at the funding levels shown in the table below:

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage I,	57,500	4,025	UNIDO
	second tranche)			
(b)	HCFC phase-out management plan (stage I,	15,000	1,950	UNEP
	second tranche)			
(c)	HCFC phase-out management plan (stage I,	19,000	2,470	France
	second tranche)			

# PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

### Tunisia

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

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2018	25.91 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)							Year: 2018		
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing		_		
HCFC-123					0.01				0.01
HCFC-124									
HCFC-141b									
HCFC-141b in imported pre-blended polyol		7.15							7.15
HCFC-142b			•						
HCFC-22					25.91				25.91

(IV) CONSUMPTION DATA (ODP tonnes)							
2009 - 2010 baseline: 40.7 Starting point for sustained aggregate reductions:							
	CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)						
Already approved:	10.6	Remaining:	35.1				

(V) BUSINESS PLAN		2019	2020	2021	After 2021	Total
UNEP	ODS phase-out (ODP tonnes)	1.50	0.00	0.00	1.50	3.00
	Funding (US \$)	75,605	0	0	147,930	223,535
UNIDO	ODS phase-out (ODP tonnes)	0.00	9.00	0.00	4.00	13.00
	Funding (US \$)	0	364,903	0	373,520	738,423

(VI) PROJECT	T DATA		2019	2020	2021	2022	2023	2024	2025	Total
Montreal Protoc	col consump	tion limits	36.63	26.46	26.46	26.46	26.46	26.46	13.19	n/a
Maximum allowable consumption (ODP tonnes)		34.60	25.91	25.91	25.91	25.91	25.91	12.88	n/a	
Project costs requested in	UNIDO	Project costs	858,306	0	0	386,640	0	0	120,000	1,364,946
principle		Support costs	60,081	0	0	27,065	0	0	8,400	95,546
(US \$)	UNEP	Project costs	76,000	0	0	100,000	0	0	24,000	200,000
(03 4)		Support costs	9,880	0	0	13,000	0	0	3,120	26,000
Total project co (US\$)	Total project costs requested in principle (US\$)		934,306	0	0	486,640	0	0	144,000	1,564,946
Total support costs requested in principle (US\$)		69,961	0	0	40,065	0	0	11,520	121,546	
Total funds requ	ested in pri	nciple (US\$)	1,004,267	0	0	526,705	0	0	155,520	1,686,492

(VII) Request for funding for the first tranche (2019)						
Agency	Funds requested (US \$)	Support costs (US \$)				
UNIDO	858,306	60,081				
UNEP	76,000	9,880				
Total	934,306	69,961				
Funding request:	Approval of funding for the first tranche (2019) as indicated above					

Secretariat's recommendation:	Individual consideration
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#### PROJECT DESCRIPTION

#### **Background**

- 29. On behalf of the Government of Tunisia, UNIDO 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 \$2,486,097, consisting of US \$2,112,240, plus agency support costs of US \$147,857 for UNIDO, and US \$147,857, plus agency support costs of US \$26,000 for UNEP, as originally submitted.<sup>3</sup> The implementation of stage II of the HPMP will result in the phase-out of 24.25 ODP tonnes<sup>4</sup> of HCFCs to meet the target of 67.5 per cent reduction in HCFC baseline consumption by 2025, as originally submitted.
- 30. The first tranche for stage II of the HPMP being requested at this meeting amounts to US \$1,225,304, consisting of US \$1,064,882, plus agency support costs of US \$74,542 for UNIDO, and US \$76,000, plus agency support costs of US \$9,880 for UNEP, as originally submitted.

#### Remaining HCFC consumption eligible for funding

- 31. The starting point for aggregate reductions on HCFC consumption in Tunisia is 40.70 ODP tonnes of HCFCs (mainly HCFC-22, and to a lesser extent, HCFC-141b and HCFC-142b), plus 5.02 ODP tonnes of HCFC-141b contained in imported pre-blended polyols.
- 32. Through stage I of the HPMP, the Government of Tunisia committed to phase out 10.60 ODP tonnes of HCFCs (i.e., 9.26 ODP tonnes of HCFC-22 and 1.34 ODP tonnes of HCFC-141b) resulting in a remaining consumption eligible for funding of 30.10 ODP tonnes of HCFCs (i.e., 29.75 ODP tonnes of HCFC-22, 0.27 ODP tonnes of HCFC-141b and 0.04 ODP tonnes of HCFC-142b), plus 5.02 ODP tonnes of HCFC-141b contained in imported pre-blended polyols.
- 33. HCFC-141b is solely used in the solvent sector, which has been fully converted during stage I of the HPMP; as there is no more consumption of HCFC-141b in the country and the Government of Tunisia has committed to establish a ban for the import of HCFC-141b, the remaining consumption of HCFC-141b eligible for funding is zero. While HCFC-142b was consumed during the base years (2009 and 2010), since 2014, no HCFC-142b has been imported; accordingly, the remaining consumption of HCFC-142b eligible for funding is zero
- 34. Through stage II of the HPMP, the Government of Tunisia commits to phase out an additional 16.87 ODP tonnes of HCFCs plus 5.02 ODP tonnes of HCFC-141b contained in imported pre-blended polyols as shown in Table 1.

Table 1. Overview of the remaining HCFC consumption eligible for funding (ODP tonnes)

Description	HCFC-22	HCFC-141b	HCFC-142b	HCFC-141b in polyols	Total
Starting point	39.01	1.61	0.04	5.02	45.68
Reduction in stage I	9.26	1.34	0.00	0.00	10.60
Remaining consumption	29.75	0.00*	0.00**	5.02	35.08
Reduction in stage II	16.87	0.00	0.00	5.02	21.89
Remaining for future stages	12.88	0.00	0.00	0.00	12.88

<sup>(\*)</sup> After stage I, there is no more consumption of HCFC-141b; therefore, the remaining consumption eligible for funding is zero (instead of 0.27 ODP tonnes).

<sup>(\*\*)</sup> Since 2014, HCFC-142b has not been imported; therefore, the remaining consumption eligible for funding is zero (instead of 0.04 ODP tonnes).

<sup>&</sup>lt;sup>3</sup>As per the letter of 22 August 2019 from the Ministry of Local Affairs and Environment of Tunisia to UNIDO.

 $<sup>^4</sup>$  21.89 ODP tonnes of HCFCs are eligible for funding including 5.02 ODP tonnes of HCFC-141b in imported pre-blended polyols

35. The revised Agreement between the Government of Tunisia and the Executive Committee for stage I of the HPMP submitted to the 83<sup>rd</sup> meeting, extended the completion date to 2020 with a consumption target of 26.46 ODP tonnes (i.e., 35 per cent reduction from the baseline); however, the remaining consumption eligible for funding was 35.80 ODP tonnes (i.e., 9.35 ODP tonnes above the target for 2020). In view of the fact that the 2018 consumption is below the Montreal Protocol target for 2020, for stage II of the HPMP the Government of Tunisia is committing to phase out 16.87 ODP tonnes of HCFC-22 to meet the 67.5 per cent reduction by 2025. Of this amount, the Government is requesting funding from the Multilateral Fund to phase out 12.68 ODP tonnes, the remaining 4.19 ODP tonnes will be phased out with funding outside the Fund. Stage II will also address all the HCFC-141b contained in imported pre-blended polyols eligible for funding.

#### **Sectoral distribution of HCFC consumption**

36. The sectors where HCFCs are currently used in Tunisia are foam manufacturing and refrigeration servicing sectors.

#### Foam manufacturing sector

- 37. While there are several foam enterprises in Tunisia, only three enterprises are using imported pre-blended polyol formulations containing HCFC-141b as blowing agent. These enterprises are Grands Ateliers du Nord (GAN), manufacturing domestic refrigerators and freezers, and Le Panneau producing rigid insulation panels, and COLDEQ manufacturing refrigerated and isothermal cabins.
- 38. At the 32<sup>nd</sup> meeting, the Executive Committee approved US \$68,917 for the phase-out CFC-11 in the manufacture of rigid polyurethane foam at COLDEQ by conversion to a water and HCFC-141b based polyol systems. Currently the enterprise is using 1.07 mt (0.12 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols; however, it will convert to non-HCFC-141b polyol systems that will be supplied by its chemical supplier using their own financial resources.
- 39. The other two enterprises are requesting funding from the Multilateral Fund for their conversion. The HCFC-141b consumption of these enterprises is shown in Table 2.

Table 2. Consumption of HCFC-141b contained in imported pre-blended polyols

Entonnico	20	2017			2018		
Enterprise	mt	ODP tonnes	mt ODP tonnes		mt ODP toni		
GAN	42.00	4.62	52.50	)	5.78	52.50	5.78
Le Panneau	14.47	1.59	14.50	)	1.60	14.50	1.60

#### HCFC consumption in the servicing sector

- 40. The current consumption of HCFC-22 is mostly for servicing domestic air-conditioners, commercial equipment and larger industrial and air-conditioning equipment. The number of RAC units in operation based on HCFC-22 refrigerant is decreasing while the number of units (locally manufactured and imported) are largely based on HFC blends (mainly R-410A). Ammonia is largely used as refrigerant in the food industry sector.
- 41. There are an estimated 5,000 RAC service technicians in the country. Registered service workshops totalling 176 (based on the previous inventory) employ approximately 1,000 technicians; the remaining population work part-time in non-registered workshops, consuming less than 1 mt per annum of HCFC-22; approximately 80 per cent of the workshops consume less than 100 kg per annum. In addition, there are approximately 35 larger industrial companies along with larger supermarkets, hotels and hospitals that maintain their own RAC equipment. There are two recovery and reclamation centres for HCFCs and HFCs in Tunisia.

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

42. Stage II of the HPMP covers the period 2020 – 2025 and proposes to phase out 5.02 ODP tonnes of HCFC-141b contained in imported pre-blended polyols and 16.87 ODP tonnes of HCFC-22 in the refrigeration servicing sector, through regulatory actions, conversion of the foam manufacturing sector and activities in the refrigeration servicing sector.

#### Regulatory actions

- 43. The regulatory component of stage II of the HPMP includes:
  - (a) Continuing the enforcement of the licensing and quota system through provision of training and equipment (e.g., refrigerant identifiers) for customs officers;
  - (b) Establishing a ban on imports of HCFC-141b contained in pre-blended polyols after the conversion of the foam manufacturing enterprises;
  - (c) Developing of HFC-related policies and regulations in combination with current HCFC-related regulations especially for the refrigeration servicing sector; and
  - (d) Policy and regulatory support to the refrigeration servicing sector by establishing and implementing a technician certification scheme and training of technicians, developing a code of conduct, and updating training materials for service technicians.

#### Activities in foam manufacturing sector

- 44. Stage II proposes to completely phase out the actual consumption of 67.0 mt (7.38 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols used as a foam-blowing agent in the manufacture of polyurethane (PU) rigid foam at GAN and Le Panneau enterprises. Both enterprises plan to convert to hydrocarbon (HC)-based blowing agents (i.e., cyclopentane for GAN and n-pentane for Le Panneau).
- 45. Incremental capital costs (ICC) included the installation of HC storage systems and mixing stations; replacement of the foam dispensers; retrofits of molds, fixtures and jigs; safety-related equipment; and training, trials and safety audits. No incremental operating costs (IOC) are being requested. A summary of the costs for the conversion of each of the two foam enterprises is presented in Table 3.

Table 3. Total cost for the conversion of the two foam enterprises covered under stage II of the HPMP

Enterprise	Item	Cost (US \$)
GAN	Production (replacement/retrofit of foaming machine (US \$235,000),	453,000
	pentane mixing unit (US \$95,000), nitrogen supply (US \$30,000),	
	retrofits of molds, fixtures and jigs (US \$38,000), pentane storage	
	tank and accessories including piping and ventilation (US \$55,000))	
	Plant safety (ventilation system, gas sensors, alarm monitoring	160,000
	system, fire protection control system, grounding, electrical	
	modifications, safety inspection and audit)	
	General (i.e., civil works/plant modifications, training and	30,000
	international technical support, trials and testing)	
	Sub-total Sub-total	643,000
	Contingency (10 %)	64,300
	Total cost	707,300
Le Panneau	Production (replacement of foaming unit (US \$150,000), premixing	273,000
	unit (US \$80,000), polyol tanks and water chiller (US \$43,000))	
	Plant safety (ventilation system, alarm control and panel, HC sensors,	145,000
	fire extinguishers, grounding, electrical modifications)	

Enterprise	Item	Cost (US \$)	
	Technical support (technology transfer, trials and testing, safety	35,000	
	inspection and audit)		
	Sub-total Sub-total	453,000	
	Contingency (10 %)	45,300	
	Total cost	498,300	
Grand total c	Grand total cost		

46. In order to sustain the phase-out of HCFC-141b contained in imported pre-blended polyols after the enterprises are converted, the Government of Tunisia commits to put in place a regulation banning the import and use of this substance starting 1 January 2023, in line with the decision 63/15(d).<sup>5</sup>

#### Activities in the refrigeration servicing sector

- 47. Activities in the servicing sector will include the following:
  - (a) Policy and regulations including the introduction and implementation of a technician certification scheme, development of training and testing materials for certification and providing support to training centres; three consultation workshops for development of new regulations to support the certification scheme; and initiate preparation of new regulations for HFCs (UNIDO) (US \$230,000);
  - (b) Training of 60 trainers and 125 customs and enforcement officers on ODS regulations and procurement of 20 units of refrigerant identifiers (UNEP) (US \$200,000);
  - (c) Train-the-trainer courses for 125 technicians on good refrigeration practices, use of low-GWP alternative refrigerants, recovery and recycling of refrigerants, support to the certification programme; update training materials; provision of basic servicing toolkits and materials (i.e., tube cutters, wrench sets, flaring tools, safety gloves and goggles, basic leak detector) to 125 technicians (UNIDO) (US \$322,651); and
  - (d) Upgrade two refrigeration reclaim/recycling centres through provision of equipment (e.g., recovery and recycling units and different size-cylinders, vacuum pumps, scales, multimeters, basic tools); and establishing a training centre within a technical college equipping it with training tools and demonstration equipment (UNIDO) (US \$268,989).

#### Project monitoring and implementation unit (PMU)

48. For stage II, where the majority of the activities will be related to the refrigeration servicing sector and requiring close coordination, a small PMU, composed of one coordinator with technical experts to be hired as required, will be established under the NOU's supervision, for continuously monitoring the progress of the implementation of the HPMP. The cost of the PMU is US \$85,000.

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

49. The total cost of stage II of the HPMP for Tunisia has been estimated at US \$2,312,240 (excluding agency support costs), as submitted. The proposed activities will result in the phase-out of 16.87 ODP tonnes of HCFC-22, plus 7.38 ODP tonnes of HCFC-141b contained in imported pre-blended polyols, with an overall cost-effectiveness of US \$6.19/kg, as shown in Table 4.

<sup>-</sup>

<sup>&</sup>lt;sup>5</sup> The project proposal would completely phase out the use of HCFC-141b in imported pre-blended polyol systems and would include a commitment from the country to put in place, by the time the last foam manufacturing plant had been converted to a non-HCFC technology, regulations or policies banning the import and/or the use of HCFC-141b pre-blended polyol systems

Table 4. Total requested funding for stage II of the HPMP for Tunisia

Costonloomnont	Aconor	Cubatanaa	HCFC I	ohase-out	Cost	CE
Sector/component	Agency	Substance	mt	mt ODP tonnes		(US \$/kg)
Foam sector						
GAN	UNIDO	HCFC-141b	52.50	5.78	707,300	13.47
Le Panneau	UNIDO	HCFC-141b	14.50	1.60	498,300	34.37
Sub total			67.00	7.38	1,205,600	17.99
Refrigeration servicing	sector					
Funded phase-out	UNIDO	HCFC-22	171.18	9.41	821,640	4.80
Funded phase-out	UNEP	HCFC-22	41.67	2.29	200,000	4.80
Unfunded phase-out	UNIDO	HCFC-22	76.18	4.19	0.00	0.00
Sub total			289.02	15.90	1,021,640	3.53
PMU	UNIDO	HCFC-22	17.71	0.97	85,000	4.80
Total servicing/PMU			306.73	16.87	1,106,640	3.61
Grand total			373.73	24.25	2,312,240	6.19

#### SECRETARIAT'S COMMENTS AND RECOMMENDATION

#### **COMMENTS**

50. The Secretariat reviewed stage II of the HPMP for Tunisia in light of implementation of stage I of the HPMP (submitted to the 84<sup>th</sup> meeting), 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 2019-2021 business plan of the Multilateral Fund.

#### PU foam manufacturing sector

- 51. The total ICC requested for the conversion of the two enterprises manufacturing PU foam to HCs has been estimated at US \$1,205,600 (i.e., US \$707,300 for GAN and US \$498,300 for Le Panneau). After review by the Secretariat on the costs associated with the replacement and/or retrofitting the foaming equipment, the need for pre-mixing units including polyol and buffer tanks, the retrofitting of presses, associated safety costs, and costs for trials and testing, the project costs were adjusted and agreed by UNIDO to US \$764,500 (i.e., US \$451,000 for GAN and US \$313,500 for Le Panneau).
- 52. Noting that the actual consumption of HCFC-141b contained in imported pre-blended by the two foam enterprises of 7.38 ODP tonnes was 2.36 ODP tonnes higher than the remaining consumption eligible for funding of 5.02 ODP tonnes, the eligible funding for the two enterprises was further adjusted to US \$458,306, based on the cost-effective threshold for foam (US \$9.79/kg for GAN with eligible consumption of 35.76 mt, and US \$10.96/kg (small and medium-sized enterprises) for Le Panneau with eligible consumption of 9.88 mt) in line with decision 74/50. The agreed costs for the PU foam sector are summarized in Table 5, with an overall cost-effectiveness of US \$6.84/kg, based on the actual phase-out of 67.00 mt (7.38 ODP tonnes) of HCFC-141b.

Table 5 Agreed costs for the PU foam sector in stage II of the HPMP for Tunisia

Enterprise	Consum	otion (HCFC-1		CE			
	Act	ual	Eligible fo	r funding	Cost (US\$)	(US \$/kg)	
	mt	ODP tonnes	mt	<b>ODP</b> tonnes		(US \$/Kg)	
GAN	52.5	5.78	35.76	3.93	350,001	9.79	
Le Panneau	14.5	1.60	9.88	1.09	108,305	10.96	
Total	67.0	7.38	45.64	5.02	458,306	10.04	

#### Refrigeration servicing sector

- 53. The Secretariat discussed how the different activities for the refrigeration servicing sector would complement and sustain the activities that had been implemented in stage I of the HPMP. UNIDO explained that the activities being proposed will build upon those being implemented in stage I; training of service technicians will support and strengthen the certification system that will be implemented during stage II; the capacity of trainers to support the training centers established during stage I, will be further supported through provision of service tool kits for technicians in the non-registered workshops, and through strengthening two recovery and recycling centres. Training for customs and enforcement officers will continue strengthening the monitoring and enforcement of ODS regulations, and will be supported with provision of refrigerant identifiers to customs posts.
- 54. The Government is aware of decisions 72/17 and 73/34 and does not promote/encourage retrofit of HCFC-based RAC equipment with flammable refrigerants; however, the training for technicians is will include aspects of safe handling and management of flammable refrigerants so that they are already trained when equipment based on flammable refrigerants is imported into Tunisia.
- 55. The Secretariat considers that the approach presented for the refrigeration servicing sector addresses the priorities identified in stage II and would result in sustainable phase-out of HCFC-22. Based on the funded consumption of 230.55 mt (12.68 ODP tonnes) of HCFC-22 to be phased out in servicing, the total funding has been agreed at US \$1,106,640, calculated at US \$4.80/kg.

*Project implementation and monitoring unit (PMU)* 

56. The Secretariat noted that funding for the PMU activities would be implemented over a period of five years and would involve activities for project management, monitoring and verification. In light of this, PMU funds were agreed at US \$85,000 with an associated phase-out of HCFC-22 of 0.97 ODP tonnes.

#### Agreed costs for stage II of the HPMP

57. Based on the above, the total costs for stage II were agreed at US \$1,564,946 to achieve the total actual phase-out of 24.25 ODP tonnes (7.38 ODP tonnes of HCFC-141b and 16.87 ODP tonnes of HCFC-22), as shown in Table 7. The cost effectiveness of the project is US \$4.19/kg.

Table 7. Agreed cost for stage II of the HPMP for Tunisia

Castanlaammamant	A	Carlantanaa	HCFC	phase-out	Cost	CE		
Sector/component	Agency	Substance	mt	<b>ODP</b> tonnes	(US \$)	(US \$/kg)		
Foam sector								
GAN*	UNIDO	HCFC-141b	52.50	5.78	350,001	6.67		
Le Panneau**	UNIDO	HCFC-141b	14.50	1.60	108,305	7.47		
Sub total			67.00	7.38	458,306	6.84		
Refrigeration servicing sector								
Funded phase-out	UNIDO	HCFC-22	171.18	9.41	821,640	4.80		
Funded phase-out	UNEP	HCFC-22	41.67	2.29	200,000	4.80		
Unfunded phase-out	UNIDO	HCFC-22	76.18	4.19	-	-		
Sub total			289.02	15.90	1,021,640	3.53		
Project management	UNIDO	HCFC-22	17.71	0.97	85,000	4.80		
Total servicing/PMU			306.73	16.87	1,106,640	3.61		
Grand total			373.73	24.25	1,564,946	4.19		

<sup>(\*)</sup> Funding calculated on a consumption eligible for funding of 35.76 mt (3.93 ODP tonnes); cost-effectiveness based on the total consumption to be phased-out.

<sup>(\*\*)</sup> Funding calculated on a consumption eligible for funding of 9.88 mt (1.09 ODP tonnes); cost-effectiveness based on the total consumption to be phased-out.

58. The agreed funding for the first tranche of stage II amounting to US \$934,306 plus agency support costs will be implemented from January 2020 to December 2021, and will be used to initiate the investment projects in the PU foam sector.

#### Impact on the climate

59. The conversion of the two PU foam manufacturing enterprises in Tunisia would avoid the emission into the atmosphere of some 48,575 tonnes of CO<sub>2</sub>-eq. tonnes per year; as shown in Table 7.

Table 9. Impact on the climate of PU foam projects

Substance	GWP	Tonnes/year	CO <sub>2</sub> -eq (tonnes/year)	
Before conversion				
HCFC-141b	725	67	48,575	
After conversion				
Low-GWP blowing agent	~0	0.00	0.00	
Impact			(48,575)	

60. In addition, the proposed activities in the servicing sector, which include training on good practices, recovery and recycling, and the conduct of awareness programme would reduce the amount of HCFC-22 used for refrigeration servicing. Each kilogram of HCFC-22 not emitted due to better refrigeration practices results in the savings of approximately 1.80 CO<sub>2</sub>-equivalent tonnes.

#### **Co-financing**

61. The beneficiary foam enterprises, GAN and Le Panneau, will co-finance the phase-out of HCFC-141b in imported pre-blended polyols not eligible for funding, estimated at US \$306,194.

#### 2019-2021 business plan of the Multilateral Fund

62. UNIDO and UNEP are requesting US \$1,564,946, plus agency support costs for the implementation of stage II of the HPMP. The total value requested of US \$1,004,267 including support costs, for the period 2019 to 2021, is US \$563,759 above the amount in the business plan for the same period.

#### **Draft Agreement**

63. A draft Agreement between the Government of Tunisia and the Executive Committee for the phase-out of HCFCs in stage II of the HPMP is contained in Annex I to the present document.

#### RECOMMENDATION

- 64. The Executive Committee may wish to consider:
  - (a) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for Tunisia for the period 2020 to 2025 to reduce HCFC consumption by 67.5 per cent of its baseline, in the total amount of US \$1,686,492, consisting of US \$1,364,946, plus agency support costs of US \$95,546 for UNIDO, and US \$200,000, plus agency support costs of US \$26,000 for UNEP;
  - (b) Noting the commitment by the Government of Tunisia to ban imports of HCFC-141b pure and contained in imported pre-blended polyols, after the conversion of enterprises are completed, and no later than 1 January 2023;

- (c) Deducting 22.22 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (d) Approving the draft Agreement between the Government of Tunisia 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; and
- (e) Approving the first tranche of stage II of the HPMP for Tunisia, and the corresponding tranche implementation plans, in the amount of US \$1,004,267 consisting of US \$858,306, plus agency support costs of US \$60,081 for UNIDO, and US \$76,000, plus agency support costs of US \$9,880 for UNEP.

#### Annex I

# DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF TUNISIA 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 Tunisia (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 12.88 ODP tonnes by 1 January 2025 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, 4.2.3 and 4.3.3 (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;
  - (c) Any enterprise to be converted to non-HCFC technology included in the Plan and that would be found to be ineligible under the policies of the Multilateral Fund (i.e., due to foreign ownership or establishment post the 21 September 2007 cut-off date), would not receive

- financial assistance. This information would be reported as part of the Tranche Implementation Plan;
- (d) The Country commits to examining the possibility of using pre-blended systems with low global-warming potential blowing agents instead of blending them in-house, for those foam enterprises covered under the Plan, should this be technically viable, economically feasible and acceptable to the enterprises; and
- (e) 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. UNIDO has agreed to be the lead implementing agency (the "Lead IA") UNEP has agreed to be the cooperating implementing agency 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	39.01
HCFC-141b	C	I	1.61
HCFC-142b	C	I	0.04
Sub-total			40.70
HCFC-141b contained in imported pre-blended polyols	С	I	5.02
Total			45.68

**APPENDIX 2-A: THE TARGETS, AND FUNDING** 

Row	Particulars	2019	2020	2021	2022	2023	2024	2025	Total
1.1	Montreal Protocol reduction	36.63	26.46	26.46	26.46	26.46	26.46	13.19	n/a
	schedule of Annex C, Group I								
	substances (ODP tonnes)								
1.2	Maximum allowable total	34.60	25.91	25.91	25.91	25.91	25.91	12.88	n/a
	consumption of Annex C,								
	Group I substances								
2.1	(ODP tonnes)	050 207	0	0	206.640	0	0	120,000	1 264 046
2.1	Lead IA (UNIDO) agreed	858,306	0	0	386,640	0	0	120,000	1,364,946
2.2	funding (US \$)  Support costs for Lead IA	60,081	0	0	27,065	0	0	8,400	95,546
2.2	(US \$)	00,081	U	U	27,063	U	U	8,400	93,340
2.3	Cooperating IA (UNEP)	76,000	0	0	100,000	0	0	24,000	200,000
2.3	agreed funding (US \$)	70,000	U	U	100,000			24,000	200,000
2.4	Support costs for Cooperating	9,880	0	0	13,000	0	0	3,120	26,000
	IA (US \$)	,,,,,,			,			-,	
3.1	Total agreed funding (US \$)	934,306	0	0	486,640	0	0	144,000	1,564,946
3.2	Total support costs (US \$)	69,961	0	0	40,065	0	0	11,520	121,546
3.3	Total agreed costs (US \$)	1,004,267	0	0	526,705	0	0	155,520	1,686,492
4.1.1	Total phase-out of HCFC-22 ag						s)		16.87
4.1.2	Phase-out of HCFC-22 to be ac				jects (ODP	tonnes)			9.26
4.1.3							12.88		
4.2.1	T U							0	
4.2.2	1 7 11 1 7 1								1.34
4.2.3									0.27**
4.3.1								0	
4.3.2								0	
4.3.3								0.04**	
4.4.1							5.02		
	this Agreement (ODP tonnes)							_	
4.4.2							0		
1.1.5	approved projects (ODP tonnes)								
4.4.3							0		
*D	(ODP tonnes)								

<sup>\*</sup>Date of completion of stage I as per stage I Agreement: 31 December 2020

#### APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the second 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

<sup>\*\*</sup>Remaining eligible consumption for funding is zero since there is no more consumption in the country.

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) will monitor the effectiveness of implementing of the different components under the HPMP, including monitoring compliance with phase-out levels and the impact of all of the activities against the set objectives and goals.
- 2. The National Commission for the Protection of the Ozone Layer in close cooperation and co-ordination with the NOU and support of the Lead IA will play a key role in monitoring the HPMP implementation through

establishing and managing a comprehensive monitoring database for the implementation of all activities under the HPMP. The NOU will undertake monitoring, reporting and record keeping on:

- (a) ODS import/export, including data collection from local importers;
- (b) ODS use of different sectors; including data collection from manufacturers and surveys conducted by the Project Management Unit;
- (c) Amount of recovered, recycled, unwanted quantities of ODS;
- (d) Regular update on projects' deliverables as per targeted milestones;
- (e) Plans, progress reports and completion reports of components and projects; and
- (f) Information on ODS-based equipment, banks and status of its operation and retirement.
- 3. The Lead IA, in cooperation with the NOU, will prepare detailed terms of reference for the monitoring database and will contract accordingly the technical institution that can develop this database. The operation and management of the database will be carried out through a consultant that will act as the database administrator and monitoring coordinator for the HPMP of the Country.
- 4. The verification will, in addition to other tasks, also cover the reports generated regarding achievements under the HPMP implementation.

#### 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 (UNEP)

- 1. The Cooperating IA will be responsible for a range of activities. These activities are specified in the overall 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; and
  - (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A.
- 2. The Cooperating IA will support the Lead IA in undertaking the following activities, for which the Lead IA is responsible:
  - (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 Implementation Plans and subsequent reports as per Appendix 4-A;
- (c) Ensuring that the experiences and progress are reflected in updates of the overall plan and in future annual implementation plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
- (d) Carrying out required supervision missions;
- (e) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Implementation Plan and accurate data reporting;
- (f) 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 Lead IA, the allocation of the reductions to the different budget items and to the funding of each implementing agency involved; and
- (g) Ensuring that disbursements made to the Country are based on the use of the indicators.

#### 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 \$129 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.