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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Ninetieth Meeting  
Montreal, 20-23 June 2022  
Items 9(a) and (d) of the provisional agenda<sup>1</sup>

**PROJECT PROPOSAL: NIGER (THE)**

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

Phase-out

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

<sup>1</sup> UNEP/OzL.Pro/ExCom/90/1

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

**Niger (The)**

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

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2021	9.06 (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					9.06				9.06

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	15.98	Starting point for sustained aggregate reductions:	15.98
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	5.60	Remaining:	10.38

<b>(V) BUSINESS PLAN</b>		<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>Total</b>
UNIDO	ODS phase-out (ODP tonnes)	2.20	0	2.70	4.90
	Funding (US \$)	122,918	0	145,276	268,194
UNEP	ODS phase-out (ODP tonnes)	0.28	0	0	0.28
	Funding (US \$)	55,721	0	0	55,721

<b>(VI) PROJECT DATA</b>		<b>2022</b>	<b>2023-2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028-2029</b>	<b>2030</b>	<b>Total</b>	
Montreal Protocol consumption limits		10.38	10.38	5.19	5.19	5.19	5.19	0	n/a	
Maximum allowable consumption (ODP tonnes)		10.38	10.38	5.19	5.19	5.19	5.19	0	n/a	
Project costs requested in principle (US \$)	UNIDO	Project costs	243,500	0	166,000	0	167,400	0	118,100	695,000
		Support costs	17,045	0	11,620	0	11,718	0	8,267	48,650
	UNEP	Project costs	108,000	0	84,500	0	90,000	0	62,500	345,000
		Support costs	14,040	0	10,985	0	11,700	0	8,125	44,850
Total project costs requested in principle (US \$)		351,500	0	250,500	0	257,400	0	180,600	1,040,000	
Total support costs requested in principle (US \$)		31,085	0	22,605	0	23,418	0	16,392	93,500	
Total funds requested in principle (US \$)		382,585	0	273,105	0	280,818	0	196,992	1,133,500	

<b>(VII) Request for approval of funding for the first tranche (2022)</b>		
<b>Implementing agency</b>	<b>Funds requested (US \$)</b>	<b>Support costs (US \$)</b>
UNIDO	243,500	17,045
UNEP	108,000	14,040
Total	351,500	31,085

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

### Background

1. On behalf of the Government of the Niger, 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 \$987,313, consisting of US \$605,900, plus agency support costs of US \$42,413 for UNIDO and US \$300,000, plus agency support costs of US \$39,000 for UNEP, as originally submitted.<sup>2</sup> The implementation of stage II of the HPMP will phase out the remaining consumption of HCFCs by 2030.

2. The first tranche of stage II of the HPMP being requested at this meeting amounts to US \$382,585, consisting of US \$243,500, plus agency support costs of US \$17,045 for UNIDO and US \$108,000, plus agency support costs of US \$14,040 for UNEP, as originally submitted.

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

3. Stage I of the HPMP for the Niger was originally approved at the 66<sup>th</sup> meeting<sup>3</sup> and revised at the 84<sup>th</sup> meeting<sup>4</sup> to phase out 5.60 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) servicing sector to meet the 35 per cent reduction from the baseline by 2020, at a total cost of US \$560,000, plus agency support costs. At the 88<sup>th</sup> meeting, in approving the third and final tranche, the Executive Committee agreed to extend stage I of the HPMP to 31 December 2022, on an exceptional basis due to the delays imposed by the COVID-19 pandemic, and noting that no further extension would be requested.<sup>5</sup>

### HCFC consumption

4. The Government of the Niger reported a consumption of 9.06 ODP tonnes of HCFC in 2021, which is 43 per cent below the HCFC baseline for compliance. The 2017-2021 HCFC consumption is shown in Table 1.

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

HCFC-22	2017	2018	2019	2020	2021	Baseline
Metric tonnes (mt)	215.45	209.70	192.91	182.25	164.70	290.54
ODP tonnes	11.85	11.53	10.61	10.02	9.06	15.98

5. HCFC-22 consumption gradually decreased until 2020 due to the implementation of HPMP activities, particularly the enforcement of the licensing and quota system, the training of customs officers, which has assisted in better control of HCFC imports, and improved practices in the refrigeration servicing sector. The sharper decrease in 2021 consumption was caused by the economic slowdown resulting from the COVID-19 pandemic. Although the increased import of HFC-based equipment has also contributed to reducing HCFC-22 imports, the prices of HFC blends and low-global-warming-potential (GWP) alternatives are still three to four times higher than the price of HCFC-22, slowing down the change of old equipment.

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

6. The Government of the Niger 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.

<sup>2</sup> As per the letter of 14 February 2022 from the Ministry of Environment and the fight against desertification of the Niger to UNIDO.

<sup>3</sup> Decision 66/40 and document UNEP/OzL.Pro/ExCom/66/44.

<sup>4</sup> Annex XVI of document UNEP/OzL.Pro/ExCom/84/75.

<sup>5</sup> Blanket approval decision 88/40.

## Status of progress and disbursement

### *Legal framework*

7. Through the implementation of stage I of the HPMP, the Government of the Niger established a licensing system and quotas for imports of HCFCs and HCFC-based equipment, adopted the 2017 harmonized code for the individual identification of HCFCs and allocated annual import quotas for HCFCs and HCFC-based equipment to registered importers. A ministerial order in December 2020 also included imports of HFCs, their blends and the equipment containing them, effective as of January 2023. An ozone-depleting substance (ODS) electronic licensing system to improve coordination and monitoring of imports by the National Ozone Unit (NOU), the Customs Department and the Ministry of Commerce will be operational during 2022. A total of 34 refrigerant identifiers were distributed to customs border points, 222 customs officers and environmental agents received training on the identification of HCFCs and associated regulatory and control measures, and an additional 100 officers are being trained as part of the third tranche. The Government of the Niger also ratified the Kigali Amendment on 29 August 2018.

### *Refrigeration servicing sector*

8. A total of 505 refrigeration technicians received training on good servicing practices, refrigerant recovery and recycling (R&R) and safe handling of alternative technologies. An additional 120 technicians will be trained before the end of 2022. The contents of the training provided were used as the basis to update the curricula of the vocational schools.

9. Four vocational schools and seven regional branches of the Association of Refrigeration Professionals of the Niger (APFN) were strengthened through the provision of equipment and tool kits to facilitate their training and to undertake R&R activities. Equipment included refrigerant recovery units, recycling kits, cylinders, refrigerant identifiers, leak detectors, hydrocarbon (HC) charging and vacuum stations, electronic scales and demonstration sets for training on the use of R-290. A total of 25 mt of refrigerant has been recovered so far in the Niger. A manual on HC refrigerant standards and procedures was also prepared and distributed to the APFN and vocational schools. Additional equipment and tools are being procured as part of the third tranche and will be distributed before the end of 2022.

## Level of fund disbursement

10. As of February 2022, of the US \$560,000 approved under stage I, US \$519,961<sup>6</sup> had been disbursed (US \$269,961 for UNIDO and US \$250,000 for UNEP). The balance of US \$40,039 will be disbursed in 2022.

## **Stage II of the HPMP**

### Remaining consumption eligible for funding

11. After deducting 5.60 ODP tonnes of HCFCs associated with stage I of the HPMP, the remaining consumption eligible for funding in stage II amounts to 10.38 ODP tonnes of HCFC-22.

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<sup>6</sup> Including the return of balances of US \$250 and US \$910, plus agency support costs, by UNIDO and UNEP, respectively for the first tranche.

Sector distribution of HCFCs

12. There are 1,503 technicians identified (including three women) and 458 workshops (25 per cent of them formally established) in the servicing sector, consuming HCFC-22 to service unitary and split air-conditioning (AC) systems, condensing units, centralized AC systems and transport refrigeration systems, as shown in Table 2. HCFC-22 represents 32 per cent of the refrigerants used in the servicing sector, followed by HFC-134a, R-404A, R-410A, R-407C and HC-600a.

**Table 2. Estimate of demand for HCFC-22 in the RAC servicing sector in the Niger**

Sector/ Application	Equipment inventory	Average charge (kg)	HCFC bank (mt)	Estimated bank refilled during servicing (%)	Annual need for servicing (mt)
Room AC (unitary and split)	400,000	1.20	480.00	26.75	128.40
Other AC (all systems with capacity above 10kW)	790	80.00	63.20	28.64	18.10
Commercial refrigeration (medium condensing units)	29,980	2.50	74.95	18.15	13.60
Industrial refrigeration (medium to large condensing units, centralized systems)	498	40.00	19.92	14.56	2.90
Transport refrigeration	790	8.00	6.32	26.90	1.70
<b>Total</b>					<b>164.70</b>

13. The high refrigerant leakage rates in the Niger (15 to 29 per cent) are due to aging equipment used beyond its normal lifespan, imports of second-hand HCFC-based equipment at a much lower price than new non-HCFC units, insufficient technical knowledge about equipment based on low-GWP alternatives, deficient servicing due to the high level of informality of the sector, lack of regulations to support refrigerant containment, and insufficient infrastructure for refrigerant R&R.

Phase-out strategy in stage II of the HPMP

14. Stage II of the HPMP aims to achieve a 67.5 per cent reduction from its HCFC baseline consumption by 2025 and 100 per cent reduction by 2030. The Government of the Niger intends to allow a maximum annual consumption of HCFC in the period from 2030 to 2040 consistent with Article 5, paragraph 8 ter(e)(i) of the Montreal Protocol.<sup>7</sup>

Proposed activities and total cost of stage II of the HPMP

15. Stage II will address the issues identified in the refrigeration servicing sector by building on activities started in stage I in the following five areas: strengthening of the legal and institutional framework; improving the capacity of customs to monitor and control HCFCs; strengthening the capacity of RAC technicians to recover and recycle refrigerants and soundly manage alternatives; raising awareness among government stakeholders, industries and end-users; and project implementation and monitoring, as summarized in Table 3. The total cost of stage II of the HPMP amounts to US \$905,900 (plus agency support costs), as originally submitted, and subsequently adjusted to US \$1,040,000.

<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.

**Table 3. Activities to be implemented in stage II of the HPMP**

Project component and planned activities	Agency	Cost as submitted (US \$)	Adjusted cost (US \$)
<i>Strengthening of the legal and institutional framework</i>			
Update of the national regulatory framework (study to determine gaps in existing laws, support on issuing complementary regulations, <sup>8</sup> update of the quota system, and a study on safety standards for flammable refrigerants)	UNIDO	45,000	45,000
Licensing imports of HCFC-22-based equipment and eventual ban (stakeholder consultation on dates and modalities, issuance of the measures and awareness campaign addressed to importers and customs officers)		10,000	10,000
<i>Strengthening customs capacity to monitor and control HCFCs</i>			
Training of 300 customs and other enforcement officers (increased to 640 upon discussion with the Secretariat) in preventing illegal trade in HCFCs, existing regulations, updated harmonized customs codes and identification of refrigerants	UNEP	100,000	100,000
Provision of 10 refrigerant identifiers (HCFC-22 and most common HFC-based refrigerants) for training purposes and for use by customs officers	UNIDO	43,300	43,300
<i>Strengthening the capacity of RAC technicians to recover and recycle refrigerants and soundly manage alternatives</i>			
Establishment of a centre of excellence in one of the vocational schools to improve the technical capacity of the servicing sector through the provision of the following services: <ul style="list-style-type: none"> <li>○ Recovery, recycling and storage of refrigerants</li> <li>○ Education and training support for vocational centres including manuals and guides, e-learning modules, standards (ISO, AHRI, Eurovent) and other regulatory material)</li> <li>○ Guidance to small and medium-sized enterprises to avoid introduction of high-GWP technologies when replacing HCFC-based equipment or establishing new capacity, including guidance on the assembly and operation of systems based on HCs, CO<sub>2</sub> or HFOs and guidance to access associated equipment and components</li> <li>○ Promotion of the role of women in the RAC sector</li> </ul>	UNIDO	110,000	110,000
Provision of equipment and tools to support the centre of excellence and the APFN in their R&R activities, including <i>inter-alia</i> 66 R&R units (increased to 70 units plus additional tools upon discussions with the Secretariat) and cylinders, recycling kits, HCFC/HFC charging units, vacuum pumps, manifolds, refrigerant hoses, electronic scales, nitrogen cylinders, portable fire extinguishers, leak detectors and other tools		126,500	180,100
Provision of tools and equipment to four vocational schools and the seven regional branches of the APFN for training purposes, including <i>inter-alia</i> manifolds, HC educational demonstration sets, set of refrigerant hoses, electronic scales, tool boxes, thermometer, portable fire extinguisher, R-290 13.5 litres cylinder, electronic leak detectors (upon discussion with the Secretariat, the number of tools by institution was increased to facilitate training to a larger number of technicians)		82,600	118,100
Development of a code of practice to serve as a manual for servicing, guide for training, basis for technician certification, guide for R&R and basis for future regulation of emissions and handling of refrigerants		15,000	15,000
Development of standard operating procedures (SOP) for handling flammable and toxic refrigerants during installation, operation,		8,500	8,500

<sup>8</sup> Measures considered include preventing venting of HCFCs during installation, servicing and decommissioning of RAC equipment, predetermined schedules for leakage checks by certified personnel for systems with charges above a certain limit, and authorizing the sale of HCFCs to certified technicians only.

Project component and planned activities	Agency	Cost as submitted (US \$)	Adjusted cost (US \$)
servicing, storage and transport, and incorporation of the SOP into legislation			
Training of 375 technicians (increased to 800 upon discussion with the Secretariat) in good servicing practices and the safe use of flammable refrigerants <sup>9</sup> and strengthening of the APFN through annual meetings with all regional branches on issues related to the implementation of the HPMP, as well as supporting regional branches to provide training to technicians	UNEP	145,000	190,000
Establishment of a technician certification scheme to ensure good servicing practices, help in the application of regulations on venting and emissions, assimilate the informal sector and ensure proper handling of low-GWP technologies		40,000	40,000
Updating the curricula of vocational schools with additional safety considerations for handling flammable and toxic refrigerants, uptake of energy efficiency and adaptations to facilitate the tasks that women perform during field work		15,000	15,000
<i>Raising awareness among government stakeholders, industries and end-users</i>			
Awareness-raising campaigns for government institutions (information sessions on the Montreal Protocol and stage II activities, including the centre of excellence and ways of including women in the RAC sector)	UNIDO	40,000	40,000
Awareness-raising campaigns for end-users and industry (information sessions on stage II activities, low-GWP technologies, safe handling of refrigerants, recycled refrigerants, refrigerant disposal and illegal refrigerants)		40,000	40,000
<i>Project implementation and monitoring</i>			
As in stage I of the HPMP, the NOU will implement, monitor and report the activities, with the assistance of UNIDO. The monitoring costs include local and international consultants (US \$42,000) and implementation and monitoring visits to stakeholders and partner institutions (US \$43,000)	UNIDO	85,000	85,000
<b>Total</b>		<b>905,900</b>	<b>1,040,000</b>
<b>Total for UNEP</b>		<b>300,000</b>	<b>345,000</b>
<b>Total for UNIDO</b>		<b>605,900</b>	<b>695,000</b>

### *Gender policy implementation<sup>10</sup>*

16. During stage I of the HPMP it was noted that in the Niger women are almost absent from the refrigeration sector and their representation in customs and other law enforcement areas is still low. Accordingly, stage II of the HPMP includes gender mainstreaming considerations in all its components. In formulating the regulatory updates, when appropriate, policy assessments and studies will include gender considerations (e.g., through the collection of sex-disaggregated data on differentiated impacts between men and women). The participation of women in the customs training sessions will be encouraged with a target of at least 20 per cent. A certain number of tools will also be prioritized for use by women technicians. The certification of women technicians will be prioritized in the first phase of the scheme, and the training curricula and code of practice will include a section to remove misconceptions that exist about women's abilities to perform certain tasks. The private sector and the Ministry for the Promotion of Women and the Protection of Children will also be engaged in stakeholder consultations to help accelerate the engagement of women in the RAC sector.

<sup>9</sup> The Niger will support training activities with OzonAction resources including *inter alia* e-learning courses by the American Society of Heating, Refrigerating and Air-Conditioning Engineers and UNEP, technical factsheets, the refrigerant management university course and the universal training kit.

<sup>10</sup> Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

Activities planned for the first tranche of stage II

17. The first funding tranche of stage II of the HPMP in the total amount of US \$351,500 will be implemented between July 2022 and December 2024 and will include the following activities:

- (a) *Strengthening of the legal and institutional framework*: The study to determine gaps in existing laws will be undertaken, to support the issuance of complementary regulation identified in the study and to update the licensing and quota system; and a study will be conducted to identify available national and regional safety standards, as well as the process to adopt standards (UNIDO) (US \$20,000);
- (b) *Improving the capacity of customs to monitor and control HCFCs*: Provision of five refrigerant identifiers to customs (UNIDO) (US \$21,650) and training of 240 customs officers and other enforcement officers (UNEP) (US \$35,000);
- (c) *Strengthening the capacity of RAC technicians to recover and recycle refrigerants and soundly manage alternatives*: Establishment of the centre of excellence, provision of 14 sets of tools for R&R activities, provision of tools and equipment to vocational schools and APFN branches for training of technicians, updating the code of practice, including a workshop and the distribution of copies, and completion of the standard operating procedures for handling flammable and hazardous refrigerants (UNIDO) (US \$151,850); update of the curricula of vocational schools, establishment of the technician certification scheme, training of 300 RAC technicians, and assistance to APFN through annual meetings and support to regional branches in providing training to technicians (UNEP) (US \$73,000);
- (d) *Raising awareness among government stakeholders, industries and end-users*: awareness-raising campaigns for government institutions, end-users and industry (UNIDO) (US \$20,000); and
- (e) *Project coordination and monitoring*: hiring consultants as needed, travel and other fees as needed (UNIDO) (US \$30,000).

**SECRETARIAT'S COMMENTS AND RECOMMENDATION**

**COMMENTS**

18. 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

19. The Government of the Niger 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 from 2030 to 2040 at a level consistent with Article 5, paragraph 8 ter(e)(i) of the Montreal Protocol, to be monitored through the import licencing and quota system.<sup>11</sup> Stage II allocates US \$5,000 under the last tranche of the

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<sup>11</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.



regulatory component for dissemination of the policy framework in place to control HCFC consumption between 2030 and 2040.

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

#### Regulatory framework to phase out HCFC use

21. Noting the use of RAC equipment beyond its recommended lifespan and the imports of second-hand HCFC equipment, the Secretariat and UNIDO discussed the need to promulgate the bans on import of new and used HCFC-based equipment earlier than the originally proposed date of 31 December 2029, to ensure a timely reduction in HCFC consumption and a smooth transition to HCFC-free alternatives. The date for the bans should also provide sufficient time to ensure the availability of low-GWP HCFC-free equipment in the market. Accordingly, UNIDO indicated that the Government of the Niger committed to ban the import of second-hand HCFC-based equipment by 1 January 2025 and the imports of new HCFC-based equipment by 1 January 2026.

22. Upon discussions with the Secretariat on the importance of preventing intentional venting of HCFC into the atmosphere during servicing of RAC equipment to support the phase-out strategy in the servicing sector, and in particular the R&R activities planned under stage II, UNIDO indicated that the Government also committed to promulgating regulatory measures to prevent emissions of HCFCs during installation, servicing and decommissioning of RAC equipment by 1 January 2025.

#### Technical and cost-related issues

23. The Secretariat noted that the activities proposed under stage II of the HPMP are the result of a comprehensive analysis of the needs of the refrigeration servicing sector and a thorough consultation process with stakeholders. Noting that stage II will be implemented for a period of eight years and that it is the last assistance for the phase-out of HCFCs, the Secretariat and UNIDO discussed potential ways of maximizing the impact of the activities proposed. As a result of the discussions, the following adjustments were made to the proposal:

- (a) Noting the available funds and the number of customs officers in the country (estimated at 1,300) of which 322 are being trained under stage I, the number of customs officers to be trained under stage II was increased from 300 to 640;
- (b) Noting the number of technicians in the country (estimated at 1,500) of which 625 are being trained under stage I, the number of technicians to be trained under stage II was increased from 375 to 800, and additional support will also be provided to the APFN regional branches to undertake training of technicians;
- (c) The number of R&R units to be provided to the centre of excellence was increased to 70, and additional tools and equipment will be provided to the vocational schools and the APFN regional branches to support the training of a larger number of technicians;
- (d) Accordingly, in order to achieve this additional coverage of the assistance to be provided under stage II to ensure the total phase-out of HCFCs, the budget was adjusted to US \$1,040,000, which is in line with decision 74/50 (Table 3).

## *R&R*

24. In explaining how the additional R&R capacity will operate, UNIDO indicated that the current R&R system is operated by the 12 branches of the AFPN, from which technicians can borrow equipment to recover gas. The main incentives to recover refrigerants are the availability at no charge of R&R equipment and tools, the decreasing quotas on imports of new HCFCs, and the price of refrigerants (HCFC-22 price is above US \$6/kg). A total of 25 mt of refrigerant has been recovered so far. The proposed additional 70 R&R units and associated tools are to be administered by the centre of excellence following the same model implemented to date. R&R activities are expected to increase as quantities of virgin refrigerant diminish and as the refrigeration sector grows with the increased emphasis on food security and the rise of the food sustainability index in the region. It is estimated that five per cent of the refrigerant used in servicing will be provided by R&R activities. R&R operations will be complemented by training and awareness activities, and the inclusion of additional R&R aspects in the curricula of vocational schools, the code of practice and the technician certification scheme.

25. UNIDO confirmed that the equipment and tools procured for R&R will also be able to operate with the most common HFCs. If enough quantities of refrigerant are recovered, the Niger would also carry out a feasibility study on the possibility of starting a reclamation process. Given the issues associated with RAC equipment operating beyond its lifespan, UNIDO confirmed that the centre of excellence will be also used as a storage centre for refrigerants and a collection centre for end-of-life equipment to recover refrigerant and properly dispose of the units.

### *Technician certification scheme*

26. UNIDO explained that the requirements to establish a technician certification system in the Niger, and the institution to operate it, will be determined during the first tranche. The certification scheme is scheduled to become operational during the second tranche and 25 RAC technicians will be certified during a pilot phase with funds from the project. Certification will be voluntary initially, and based on the results and consultation with stakeholders, is expected to become mandatory through regulation by the end of stage II. Following discussions on the duration of the stage and the need to have a critical mass of technicians certified before it becomes mandatory, UNIDO reported that between 2025 and 2030 approximately 500 RAC technicians would also be certified (100 every year) through participants' contribution.

### *Sustainability of the activities proposed under stage II*

27. UNEP reported that to ensure the sustainability of the customs training beyond the HPMP timeline, the training topics will be included in the updated curricula of the National School of Administration and Magistracy (ENAM) where customs officers are trained; additional financial resources will be mobilized to expand the training to customs officers not covered under the programme, and an ozone budget will be included in the national budget of the Ministry of Environment (NOU) and the Ministry of Finance (General Directorate of Customs) to ensure continuous training of customs officers.

28. On the sustainability of the centre of excellence, UNIDO explained that the ministries of Education and Environment will provide in-kind co-financing for logistics and staff, and that the Niger is committed to maintaining this contribution over time. Regarding the technician training programme, a memorandum will be established with the four assisted vocational schools on their role and how to continue training RAC technicians by integrating the ozone module into their curricula, or updating the module if it has already been included.

Total project cost

29. The total cost for stage II of the HPMP amounts to US \$1,040,000, based on decision 74/50(c)(xii) on the eligible funding level for a low-volume consuming country. The funding for the first tranche was maintained as submitted at US \$351,500.

Impact on the climate

30. The activities proposed in the servicing sector, which include better containment of refrigerants through training and the provision of equipment, will reduce the amount of HCFC-22 used for RAC servicing. Each kilogramme of HCFC-22 not emitted due to better refrigeration practices results in savings of approximately 1.8 CO<sub>2</sub>-equivalent tonnes. A calculation of the impact on the climate was provided in the HPMP as 341,547 tonnes of CO<sub>2</sub> equivalent due to direct refrigerant emissions. The activities planned by the Niger, 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. In addition, the Niger estimates that a 10 per cent improvement in the energy efficiency of its RAC bank would reduce indirect emissions from electricity use by 0.6 million tonnes of CO<sub>2</sub> equivalent.<sup>12</sup>

**Co-financing**

31. The Government of the Niger will provide an in-kind contribution for the operation of the centre of excellence, and the APFN will provide in-kind co-financing through expert support during the implementation of stage II. The Government is also in contact with partners to identify additional sources of funding.

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

32. UNIDO and UNEP are requesting US \$1,040,000, plus agency support costs, for the implementation of stage II of the HPMP for the Niger. The total requested value of US \$382,585, including agency support costs for the period of 2022–2024, is US \$58,670 above the amount in the business plan.

**Draft Agreement**

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

**RECOMMENDATION**

34. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for the Niger for the period from 2022 to 2030 for the complete phase-out of HCFC consumption, in the amount of US \$1,133,500, consisting of US \$695,000, plus agency support costs of US \$48,650 for UNIDO and US \$345,000, plus agency support costs of US \$44,850 for UNEP, on the understanding that no more funding from the Multilateral Fund would be provided for the phase-out of HCFCs;

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<sup>12</sup> Based on electricity generation of 0.59TWh from fossil fuels emitting one kg of CO<sub>2</sub> equivalent per kW, and assuming ten per cent of the electricity consumed by the RAC sector.

- (b) Noting the commitment of the Government of the Niger:
  - (i) To completely phase out HCFCs by 1 January 2030 and to ban the import of HCFCs by 1 January 2030, except for those allowed for a servicing tail between 2030 and 2040, where required, consistent with the provisions of the Montreal Protocol;
  - (ii) To issue a ban on the import of second hand HCFC-based equipment by 1 January 2025 and new HCFC-based equipment by 1 January 2026;
  - (iii) To establish regulatory measures to control the intended emissions of refrigerant during installation, servicing and decommissioning by 1 January 2025;
- (c) Deducting 10.38 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (d) Approving the draft Agreement between the Government of the Niger 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 the Niger 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 the Niger for the 2030-2040 period; and
- (f) Approving the first tranche of stage II of the HPMP for the Niger, and the corresponding tranche implementation plan, in the amount of US \$382,585, consisting of US \$243,500, plus agency support costs of US \$17,045 for UNIDO, and US \$108,000, plus agency support costs of US \$14,040 for UNEP.

## Annex I

### **DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF THE NIGER 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 the Niger (the “Country”) and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A (“The Substances”) to a sustained level of zero ODP tonnes by 1 January 2030 in compliance with Montreal Protocol schedule.
2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in row 4.1.3 (remaining consumption eligible for funding).
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees, in principle, to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (“Funding Approval Schedule”).
4. The Country agrees to implement this Agreement in accordance with the stage II of the HCFC phase-out management plan (HPMP) approved (“the Plan”). In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.

#### **Conditions for funding release**

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

- (c) That the Country had submitted a Tranche Implementation Report in the form of Appendix 4-A (“Format of Tranche Implementation Reports and Plans”) covering each previous calendar year; that it had achieved a significant level of implementation of activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and
- (d) That the Country has submitted a Tranche Implementation Plan in the form of Appendix 4-A covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

### **Monitoring**

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (“Monitoring Institutions and Roles”) will monitor and report on implementation of the activities in the previous Tranche Implementation Plans in accordance with their roles and responsibilities set out in the same appendix.

### **Flexibility in the reallocation of funds**

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

- (a) Reallocations categorized as major changes must be documented in advance either in a Tranche Implementation Plan as foreseen in sub-paragraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:
  - (i) Issues potentially concerning the rules and policies of the Multilateral Fund;
  - (ii) Changes which would modify any clause of this Agreement;
  - (iii) Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches;
  - (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 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”) and UNEP 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 subparagraph 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	15.98

#### **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)	10.38	10.38	5.19	5.19	5.19	5.19	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	10.38	10.38	5.19	5.19	5.19	5.19	0	n/a
2.1	Lead IA (UNIDO) agreed funding (US \$)	243,500	0	166,000	0	167,400	0	118,100	695,000
2.2	Support costs for Lead IA (US \$)	17,045	0	11,620	0	11,718	0	8,267	48,650
2.3	Cooperating IA (UNEP) agreed funding (US \$)	108,000	0	84,500	0	90,000	0	62,500	345,000



Row	Particulars	2022	2023-2024	2025	2026	2027	2028-2029	2030	Total
2.4	Support costs for Cooperating IA (US \$)	14,040	0	10,985	0	11,700	0	8,125	44,850
3.1	Total agreed funding (US \$)	351,500	0	250,500	0	257,400	0	180,600	1,040,000
3.2	Total support costs (US \$)	31,085	0	22,605	0	23,418	0	16,392	93,500
3.3	Total agreed costs (US \$)	382,585	0	273,105	0	280,818	0	196,992	1,133,500
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								10.38
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)								5.60
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								0.00

\*Date of completion of stage I as per stage I Agreement: 31 December 2022

### 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) will be responsible for the monitoring and overall co-ordination of national activities during the implementation of the HPMP.
2. An independent consultant will be employed by the Lead IA if required for the verification of the achievement. Annual report will be prepared by the NOU under the assistance of the Lead IA and the Cooperating IA.

#### **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 AGENCIES**

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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