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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-third Meeting
Montreal, 15-19 December 2023
Item 9(d) of the provisional agenda[1]

PROJECT PROPOSAL: NIGER (THE)

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

Phase-down

- Kigali HFC implementation plan (stage I, first tranche) UNIDO and UNEP

[1] UNEP/OzL.Pro/ExCom/93/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Niger (the)

(I) PROJECT TITLE	AGENCY
Kigali HFC implementation plan (stage I)	UNIDO (lead), UNEP

(II) LATEST ARTICLE 7 DATA (Annex F)	**Year:** 2022	314.94 mt	813,172 CO_2-eq tonnes

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (CO_2-eq tonnes)									**Year:** 2022
Chemical	Aerosol	Foam	Firefighting	AC and refrigeration			Solvent	Other	Total sector consumption
				Manufacturing		Servicing			
				AC	Other				
HFC-134a						182,325			182,325
R-404A						522,357			522,357
R-407C						26,785			26,785
R-410A						81,705			81,705

(IV) AVERAGE 2020-2022 HFC CONSUMPTION IN SERVICING	341.63 mt	880,720 CO_2-eq tonnes

(V) CONSUMPTION DATA (CO_2-eq tonnes)			
Baseline: average 2020-2022 HFC consumption plus 65% of HCFC baseline	1,222,358	Starting point for sustained aggregate reductions	[n/a]*
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved	0	Remaining	[n/a]*

*For countries with average 2020-2022 HFC consumption in servicing only and below 360 mt.

(VI) ENDORSED BUSINESS PLAN		2023	2024	2025	Total
UNIDO	HFC phase-down (CO_2-eq tonnes)	0	0	0	0
	Funding (US $)	0	0	0	0
UNEP	HFC phase-down (CO_2-eq tonnes)	0	0	0	0
	Funding (US $)	0	0	0	0

(VII) PROJECT DATA			2023	2024	2025	2026	2027	2028	2029	2030	Total
Consumption (CO_2-eq tonnes)	Montreal Protocol limits		n/a	1,222,358					1,100,122		n/a
	Maximum allowable		n/a	935,450	911,652	887,854	864,056	840,258	792,662	792,662	n/a
Amounts requested in principle (US $)	UNIDO	Project costs	115,000	0	94,500	0	69,500	0	0	38,000	317,000
		Support costs	8,050	0	6,615	0	4,865	0	0	2,660	22,190
	UNEP	Project costs	35,000	0	35,000	0	40,000	0	0	5,000	115,000
		Support costs	4,550	0	4,550	0	5,200	0	0	650	14,950
Total amounts recommended in principle (US $)		Project costs	*150,000	0	129,500	0	109,500	0	0	43,000	**432,000
		Support costs	*12,600	0	11,165	0	10,065	0	0	3,310	37,140
		Total funds	***162,600**	**0**	**140,665**	**0**	**119,565**	**0**	**0**	**46,310**	**469,140**

*Including the US $100,000 advanced at the 91st meeting and US $50,000 to be approved at the 93rd meeting, plus agency support costs.

** In line with decision 92/37: US $360,000 plus 20 per cent for committing to reduce consumption by 10 per cent of the average HFC consumption in servicing in baseline years

(VIII) Request for approval of funding for the first tranche (2023)		
Implementing agency	**Funds recommended (US $)**	**Support costs (US $)**
UNIDO	115,000	8,050
UNEP	35,000	4,550
Total	**150,000**	**12,600**

Secretariat's recommendation:	Individual consideration – all technical and cost issues resolved

PROJECT DESCRIPTION

1. At its 91st meeting, the Executive Committee considered stage I of the Kigali HFC implementation plan (KIP) for the Niger.[2] In the absence of an established HFC consumption baseline for the country or an agreement on the levels and modalities of funding for HFC phase-down in the refrigeration servicing sector at the time, the Executive Committee approved, on an exceptional basis and without setting a precedent, US $109,800, consisting of US $80,000, plus agency support costs of US $7,200, for UNIDO and US $20,000, plus agency support costs of US $2,600, for UNEP, to support activities identified in the implementation plan for the first tranche of stage I of the KIP for the Niger,[3] on the understanding that the funding would be incorporated within the first tranche of stage I of the KIP, deferred for consideration by the Executive Committee to the 92nd meeting.[4]

2. At the 92nd meeting, in the absence of an established HFC baseline and the cost guidelines for HFC phase-down, UNIDO requested, on behalf of the Government of the Niger, that consideration of stage I of the KIP be further deferred to the 93rd meeting.

3. On behalf of the Government of the Niger, UNIDO as the lead implementing agency has resubmitted to the 93rd meeting, the request for stage I of the KIP, at a total cost of US $469,140, consisting of US $317,000, plus agency support costs of US $22,190, for UNIDO and US $115,000, plus agency support costs of US $14,950, for UNEP, as originally submitted.[5] The project proposal was revised taking into consideration the country's established HFC baseline and decision 92/37 on the level and modalities of funding in the refrigeration servicing sector. The implementation of stage I of the KIP will assist the Government of the Niger in achieving a 10 per cent reduction from its average HFC consumption in the baseline years, or 35.2 per cent of its HFC baseline, by 1 January 2029.

4. No additional funds to those approved at the 91st meeting were requested for the first tranche of stage I of the KIP, as submitted.

Background

5. The Government of the Niger ratified all amendments to the Montreal Protocol, including the Kigali Amendment on 29 August 2018. The Niger has an HCFC consumption baseline of 15.98 ODP tonnes or 290.54 metric tonnes (mt) and is set to completely phase out HCFCs by 1 January 2030.[6]

Status of implementation of the HCFC phase-out management plan

6. Stage I of the HCFC phase-out management plan (HPMP) for the Niger was approved at the 66th meeting[7] and revised at the 84th meeting[8] 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. Stage I was completed in December 2022.

[2] UNEP/OzL.Pro/ExCom/91/48
[3] As described in paragraph 60 of document UNEP/OzL.Pro/ExCom/91/48
[4] Decision 91/58
[5] As per the letter of 29 September 2023 from the Ministry of Water, Sanitation, and the Environment of the Niger to UNIDO.
[6] Except for those HCFCs allowed for a servicing tail between 2030 and 2040, where required, consistent with the provisions of the Montreal Protocol.
[7] Decision 66/40 and document UNEP/OzL.Pro/ExCom/66/44.
[8] Annex XVI of document UNEP/OzL.Pro/ExCom/84/75.

7. Stage II of the HPMP for the Niger was approved at the 90th meeting[9] for the complete phase-out of the remaining HCFC consumption of 10.38 ODP tonnes, in the amount of US $1,040,000, plus agency support costs. Stage II will be completed by December 2031, as stipulated in the Agreement between the Government of the Niger and the Executive Committee.

Status of implementation of HFC-related activities

8. At the 74th meeting, funding in the amount of US $70,000 was approved for the Niger to conduct a survey on the use of alternatives to ozone-depleting substances (ODSs) in the country; the project was completed in September 2017. At the 81st meeting, funding in the amount of US $150,000 was approved for the implementation of enabling activities for HFC phase-down, completed in December 2020. These activities assisted the country *inter alia* in ratifying the Kigali Amendment, updating its licensing system to include HFCs and HFC blends, undertaking a survey on the imports of HFCs and related equipment and on relevant market trends, reporting of HFC import data under Article 7 of the Montreal Protocol, identifying capacity-building needs for refrigeration technicians to support the transition to alternatives, analyzing policy options to facilitate HFC phase-down, reviewing the existing national and regional standards on energy efficiency and labeling, and strengthening the dialogue with energy experts on the national and regional levels.

Stage I of the Kigali HFC implementation plan

Policy, regulatory, and institutional frameworks

9. The Ministry of Water, Sanitation and the Environment (MHA/E) (formerly the Ministry of the Environment and the Fight against Desertification) is the national body responsible for the implementation of the Montreal Protocol. The national ozone unit (NOU), embedded in the MHA/E, collects relevant data and reports on the consumption of substances controlled under the Montreal Protocol, operates the ODS import licensing system, allocates quotas, maintains import records, and supervises the implementation of projects approved by the Executive Committee. Also involved in HFC phase-down is the National Ozone Committee, whose members represent the Ministry of Commerce and Private Sector Promotion, the Directorate General of the Customs, the National Institute of Statistics, and ODS importers and distributors.

10. The Niger has an operational ODS import licensing and quota system, originally developed for HCFCs and extended in 2021 to cover HFCs and related equipment. All HFC import requests must be assessed by the NOU and authorized by the Ministry of Commerce. The Government will start issuing HFC import quotas in 2024, the year of the HFC consumption freeze, distributing them among importers on a "first come, first served" basis. Tariff codes for HFCs and related equipment, based on the Harmonized System updated in 2022, are now included in the software applications used by the customs.

11. The regional regulations by the West African Economic and Monetary Union that harmonize national regulations for the import, marketing, use, and re-export of ODSs and equipment containing them, have not been extended to HFCs yet.

HFC consumption

12. The Niger only imports HFCs. In 2022, the predominantly consumed substance was R-404A, accounting for 64 per cent of total national HFC consumption in CO_2-equivalent (CO_2-eq) tonnes, followed by HFC-134a (22 per cent), R-410A (10 per cent) and R-407C (3 per cent). Table 1 presents the country's HFC consumption as reported to the Ozone Secretariat under Article 7 of the Montreal Protocol.

[9] Decision 90/42 and document UNEP/OzL.Pro/ExCom/90/34.

Table 1. HFC consumption in the Niger (2019-2022 Article 7 data)

HFC	GWP*	2019	2020	2021	2022	Share of HFC consumption in 2022 (%)
mt						
HFC-134a	1,4300	188.11	154.06	129.75	127.50	40.5
R-404A	3,922	315.73	159.07	138.43	133.20	42.3
R-407C	1,774	38.44	22.52	15.90	15.10	4.8
R-410A	2,088	74.14	48.60	41.61	39.14	12.4
Total (mt)		**616.42**	**384.25**	**325.69**	**314.94**	**100**
CO_2-eq tonnes						
HFC-134a	1,430	268,997	220,306	185,543	182,325	22.4
R-404A	3,922	1,238,167	623,809	542,867	522,357	64.2
R-407C	1,774	68,187	39,950	28,207	26,785	3.3
R-410A	2,088	154,767	101,453	86,861	81,705	10.1
Total (CO_2-eq tonnes)		**1,730,118**	**985,514**	**843,475**	**813,172**	**100.0**

*Global-warming potential

13. The high levels of consumption of R-404A and other HFCs in 2019 are attributed to overstocking that occurred in response to the awareness-building campaigns regarding the Kigali Amendment and its implications on imports. This trend did not continue in 2020 because of the effects of the COVID-19 pandemic, which had also caused an overall reduction in HFC consumption in 2021 and 2022. Consumption is expected to grow again in 2023.

Country programme implementation report

14. The sectoral HFC consumption data provided by the Government of the Niger in its country programme implementation reports for the years 2020-2022 is consistent with the data reported under Article 7 of the Montreal Protocol.

HFC distribution by sector

15. The Niger only has HFC consumption in its refrigeration and air-conditioning (AC) servicing sector. In 2022, HFCs were mainly used in the servicing of commercial refrigeration equipment (69 per cent in mt and 78 per cent in CO_2-eq tonnes), followed by residential AC, mobile air-conditioning (MAC), and domestic refrigeration, as shown in table 2.

Table 2. HFC consumption in the refrigeration and AC servicing subsectors in the Niger (2022)

Servicing subsectors*		HFC-134a	R-404A	R-407C	R-410A	Total	Share of total consumption (%)
mt							
Domestic refrigeration		12.65	0.00	0.00	0.00	12.65	4
Commercial refrigeration	Stand-alone units	4.30	6.29	0.00	0.0	10.59	69
	Condenser units	54.97	75.17	0.00	0.00	130.14	
	Centralized systems	30.40	46.76	0.00	0.00	77.16	
Industrial and transport refrigeration		1.35	4.98	0.00	0.0	6.33	2
Residential AC		0.00	0.00	15.10	36.23	51.33	16
Commercial AC		0.00	0.00	0.00	2.91	2.91	1
MAC		23.83	0.00	0.00	0.00	23.83	8
Total (mt)		**127.50**	**133.20**	**15.10**	**39.14**	**314.94**	**100**
Local installation and assembly**		15.48	17.26	0.00	0.00	32.74	

Servicing subsectors*		HFC-134a	R-404A	R-407C	R-410A	Total	Share of total consumption (%)
CO_2-eq tonnes							
Domestic refrigeration		18,090	0.00	0.00	0.00	18,090	2
Commercial refrigeration	Stand-alone units	6,149	24,667	0.00	0.00	30,816	78
	Condenser units	78,607	294,787	0.00	0.00	373,394	
	Centralized systems	43,472	183,374	0.00	0.00	226,846	
Industrial and transport refrigeration		1,931	19,530	0.00	0.00	21,460	2
Residential AC		-	0.00	26,785	75,630	102,415	13
Commercial AC		-	0.00	0.00	6,075	6,075	1
MAC		34,077	0.00	0.00	0.00	34,077	4
Total (CO_2-eq tonnes)		**182,325**	**522,357**	**26,785**	**81,705**	**813,172**	**100**
Local installation and assembly**		22,136	67,687	0.00	0.00	89,823	

*The country has not requested exemptions for any specific subsector or use where suitable alternatives do not exist, as allowed by decision XVIII/2 of the Parties in the case of countries with high-ambient-temperature conditions.
**Preliminary estimation of HFCs used for the initial charging of equipment. This value is not additional to the total in the table but rather represents the portion of HFCs consumed for the servicing of commercial and industrial refrigeration appliances.

16. There are 1,503 identified RAC technicians (including three women) in the country, 1,250 of whom work in informal workshops. Out of the 458 known workshops in the servicing sector, 25 per cent are formally established. There are 176 technicians, employed in 89 identified MAC workshops, who have not yet received training on good servicing practices.

Domestic, commercial, industrial and transport refrigeration servicing

17. The domestic refrigeration servicing subsector consumes 2 per cent of all HFCs in the country (in CO_2-eq tonnes). In domestic refrigeration, HFC-134a is used to charge small fridges and freezers, mostly domestic appliances and medicine storage units in commercial and healthcare facilities. The introduction of R-600a-based refrigerators is progressing slowly due to the blend's relatively high price, concerns about flammability, and lack of expertise by technicians, mostly employed in the informal sector and not trained under the HPMP.

18. The commercial, industrial, and transport refrigeration servicing subsectors mostly use HFC-134a and R-404A, with commercial refrigeration consuming 78 per cent (in CO_2-eq tonnes) of all HFCs in the country, and only 2 per cent of all HFC consumption recorded in the industrial and transport refrigeration. The R-404A blend is used for servicing equipment used at food stores, food outlets, cold stores, bakeries, and other food preparation facilities, factory-sealed units, and bespoke refrigeration units assembled in workshops or on-site. The sector comprises workshops, technicians, and small and medium-sized enterprises (SMEs) which design, assemble and install equipment charged with R-404A and HCFC-22. In most cases, these SMEs act as trusted advisers to equipment owners in the selection of technology.

Residential and commercial air-conditioning servicing

19. The main refrigerants used to service residential AC equipment are HCFC-22 (90 per cent), followed by R-410A and R-407C, with R-410A-based units rapidly replacing HCFC-22 units. HFC-32-based AC units are not available in the country, and only limited amounts of R-290-based units have been imported or individually retrofitted from HCFC-22. Most commercial AC systems use R-410A; more research is needed to verify whether HFC-134a-based chilled water systems are used in the country. Servicing in this sector is provided by relatively large enterprises and, given the extensive use of HCFC-22, many HPMP activities address specifically AC servicing technicians.

Mobile air-conditioning servicing

20. The MAC sector, not assisted under the HPMP, accounts for 8 per cent of national HFC consumption in mt and 4 per cent in CO_2-eq tonnes. MAC appliances are prone to leaks and are commonly repaired with used parts from other vehicles. While only 7 per cent of all vehicles in the country receive AC servicing, each serviced vehicle has practically its entire charge replaced. Servicing practices need to be improved to ensure proper operation of the units, leak reduction, and refrigerant recovery. Alternatives such as HFO-1234yf are not available yet, and their introduction will depend on the technology used in cars imported into the country, many of them second-hand.

Local installation and assembly subsector

21. There are no precise data on HFCs used by the local installation and assembly enterprises for the initial charging of new systems, but a preliminary estimate indicates that they account for around 15 per cent of all HFC consumption in the servicing of commercial and industrial refrigeration equipment. Under stage I of the KIP, data on the local installation and assembly subsector will be collected.

Phase-down strategy for stage I of the Kigali HFC implementation plan

Overarching strategy

22. The Government of the Niger is proposing three stages for the KIP. Stage I is to be implemented simultaneously with the HPMP until 2030. Stage II is expected to cover a period of 10 years (from 2031 to 2040), and stage III is planned to span a period of five years, until 2045.

HFC baseline and proposed reductions

23. The Government of the Niger reported its Article 7 data for 2020-2022. By adding 65 per cent of the HCFC baseline in CO_2-eq tonnes to the average HFC consumption in 2020-2022, the established HFC baseline is 1,222,358 CO_2-eq tonnes, as shown in table 3.

Table 3. HFC baseline for the Niger (CO_2-eq tonnes)

Baseline calculation components	2020	2021	2022
HFC annual consumption	985,514	843,475	813,172
HFC average consumption in 2020-2022			880,720
HCFC baseline (65%)			341,638
Established HFC baseline			**1,222,358**

24. The Government of the Niger and UNIDO have estimated the HFC consumption levels between 2023 and 2030 based on a 6 per cent economic activity growth rate, plus an annual increase linked to the HCFC phase-out. While in this business-as-usual (BAU) scenario HFC consumption in the country would exceed the Montreal Protocol target in 2027, the KIP proposes to begin annual reductions as early as 2024, until a 10 per cent reduction from the 2020-2022 average (and 35.2 per cent from the baseline) is reached in 2029, as shown in table 4.

Table 4. HFC consumption estimates and reductions proposed by stage I of the KIP

Year	HFC consumption estimates (CO_2-eq tonnes)			Proposed reductions in HFC consumption (%)	
	BAU scenario*	Montreal Protocol limits	Proposed under the KIP	From 2020-2022 average	From baseline
2020-2022 average	880,720	n/a	**880,720**	0	n/a
2023	988,302	n/a	**988,293**	-	n/a

Year	HFC consumption estimates (CO_2-eq tonnes)			Proposed reductions in HFC consumption (%)	
	BAU scenario*	Montreal Protocol limits	Proposed under the KIP	From 2020-2022 average	From baseline
2024	1,044,307	1,222,358	**935,450**	-	-
2025	1,103,682	1,222,358	**911,652**	-	25.4
2026	1,166,619	1,222,358	**887,854**	-	27.4
2027	1,233,332	1,222,358	**864,056**	1.9	29.3
2028	1,304,048	1,222,358	**840,258**	4.6	31.3
2029	1,379,007	1,100,122	**792,662**	10.0	35.2
2030	1,458,464	1,100,122	**792,662**	10.0	35.2

*Assuming an annual 6 per cent growth rate plus an annual increase of 54,739 CO_2-eq tonnes linked to the HCFC phase-out

Proposed activities

25. In consultation with stakeholders and using a rating approach based on consumption levels and ease of implementation, the Government of the Niger determined that stage I of the KIP would prioritize three sectors: domestic and commercial refrigeration, residential AC, and MAC. Activities including capacity building, training and curricula updates, awareness campaigns for industry stakeholders and end users, and support to local associations will be implemented in all these sectors. In addition, stage I of the KIP includes the overarching policy component, aiming to strengthen the regulatory framework and control mechanisms, and the project coordination and monitoring component.

26. In adjusting the funding level for stage I of the KIP from US $685,500 requested at the 91st meeting to US $432,000 established in line with decision 92/37, activities involving assessment of a refrigerant reclaim centre and studies on the sound management of end-of-life refrigerants and appliances were removed from the plan, while the budget for several other activities was reduced. The revised elements of stage I of the KIP for the Niger and their cost breakdown are presented in table 5 below.

Table 5. Proposed cost of activities to be implemented in stage I of the KIP for the Niger (US $)

KIP component	Activity	Agency	Cost
Domestic and commercial refrigeration servicing	Training of 180 technicians in the domestic refrigeration sector	UNEP	45,000
	Support for industry associations in formalizing their sectors		10,000
	Provision of tools for technicians in the domestic refrigeration sector	UNIDO	50,000
	Technology awareness building for refrigeration stakeholders		40,000
	Subtotal for domestic and commercial refrigeration servicing		*145,000*
AC servicing	Technology demonstration and end-user awareness projects to promote the adoption of R-290-based technology in residential AC units	UNIDO	45,000
	Subtotal for AC servicing		*45,000*
MAC servicing	Training of 80 MAC technicians	UNEP	20,000
	Extending the technician certification scheme to the MAC subsector		10,000
	Development of a code of practice	UNIDO	10,000
	Provision of tools and equipment for MAC technician training		40,000
	Subtotal for MAC servicing		*80,000*
Strengthening of the regulatory framework and control mechanisms	Strengthening of the HFC licensing and quota system	UNIDO	5,000
	Development and adoption of standards and refrigerant labeling		15,000
	Establishment of the mandatory licensing of servicing workshops		10,000
	Awareness-raising campaign for key stakeholders		20,000
	Strengthening of record-keeping and reporting by enterprises		5,000
	Provision of seven refrigerant identifiers to the customs		35,000
	Strengthening of HFC import records by the customs	UNEP	5,000
	Development of a curriculum for customs and enforcement officers		5,000
	Training of 60 customs and enforcement officers		15,000

KIP component	Activity	Agency	Cost
	Reinforcement of market monitoring, including surveys, and development of regulatory measures for a progressive ban on imports of equipment based on HFC-134a		5,000
	Subtotal for regulatory framework		*120,000*
Project coordination and monitoring	International and national consultants	UNIDO	20,000
	Travel		11,000
	Consultation meetings		7,000
	Other expenses		4,000
	Subtotal for coordination and monitoring		*42,000*
Total			**432,000**
Total for UNIDO			317,000
Total for UNEP			115,000

Gender policy implementation

27. In line with decisions 84/92(d), 90/48(c) and 92/40(b), the NOU will ensure the participation of women in training and certification programmes for customs officers and RAC technicians; promote their enrollment in RAC programmes in secondary and vocational schools; and sensitize stakeholders to the gender policy of the Multilateral Fund. Activities planned and budgeted by UNIDO and UNEP include encouraging women working in the field to join professional associations; targeting a 20 per cent rate of female trainees among the customs and enforcement officers; increasing the number of women participating in RAC technician training and certification schemes; earmarking several toolkits provided under the KIP for use by female technicians; mandatory collecting of gender-disaggregated data; including the gender dimension when selecting the beneficiary end users; and involving the Ministry for the Promotion of Women and the Protection of Children in the project's coordination and monitoring component. The implementing agencies' results framework requires the inclusion of gender-responsive indicators, targets, and baseline data to monitor progress in promoting gender equality. Project staff has completed the United Nations Women online training courses, UNIDO's gender focal point was consulted during the preparation of the proposal, and gender will be considered in the recruitment of international and national experts.

Total cost of stage I of the Kigali HFC implementation plan

28. Average HFC consumption in the refrigeration servicing sector during the baseline years was 341.63 mt. In line with decision 92/37, the eligible funding for stage I of the KIP is US $360,000 plus 20 per cent, as the country has committed to reducing its HFC consumption by 10 per cent of its baseline years' average. Accordingly, the budget for stage I has been established at US $432,000, as shown in table 5 above.

Coordination of activities in the servicing sector under HCFC phase-out and HFC phase-down plans

29. The Government of the Niger is committed to harmonizing the implementation of HPMP and KIP activities to the extent possible, on the understanding that both multi-year agreements will be governed by separate agreements between the country and the Executive Committee. KIP activities that could be implemented in an integrated manner with the HPMP, thus minimizing expenses and logistical costs, include *inter alia* tool procurement, introduction of regulatory measures, training and certification of AC technicians, training of customs officers, strengthening of technical schools and refrigeration associations, implementation of refrigerant containment strategies, adoption of standards and codes of practice to facilitate the safe adoption of flammable and/or toxic refrigerants with low GWP, and project coordination. Activities that will be implemented in parallel include training and provision of basic equipment and servicing tools for technicians in the MAC and domestic refrigeration servicing subsectors.

30. Stage I of the KIP will be implemented in four tranches. The schedule of HFC phase-down and HCFC phase-out commitments, and that of the KIP and HPMP tranches, is presented in Annex I to the present document, while Annex II presents a detailed overview and costs of both HPMP and KIP activities.

Implementation of the first tranche of stage I of the Kigali HFC implementation plan

31. With the US $100,000 approved in advance at the 91st meeting,[10] the Government is strengthening its HFC licensing system and import records, and has launched three awareness-raising campaigns to sensitize key stakeholders, including policy makers, end users and servicing workshops, to KIP-related issues and activities. The details of the remaining activities agreed under the first tranche are presented below in paragraph 38, in the Secretariat's comments section.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

32. The Secretariat reviewed stage I of the KIP for the Niger in light of the existing policies and guidelines of the Multilateral Fund, including decisions 91/38[11] and 92/37,[12] stage II of the country's HPMP, and the 2023-2025 business plan of the Multilateral Fund.

Policy, regulatory and institutional frameworks

HFC licensing and quota system

33. In line with decision 87/50(g), the Government of the Niger confirmed that the country had an established and enforceable national system of licensing and quotas for monitoring HFC imports/exports in place. The licensing system for HFCs, blends and equipment containing them was established in December 2020 through Decree 0225, and the quota system was established through an inter-ministerial decree 2021-161 in March 2021. The Government will start issuing import quotas for HFCs in 2024 at a level of 935,450 CO_2-eq tonnes, consistent with the reductions proposed under stage I of the KIP.

Adjustments to stage I of the KIP as submitted at the 91st meeting

34. The Secretariat notes that the following adjustments were made to the proposal for stage I of the KIP for the Niger:

(a) HFC consumption figures for 2022 and the newly established HFC baseline of 1,222,358 CO_2-eq tonnes were included;

(b) Annual reductions in HFC consumption are proposed to begin in 2024 and continue until achieving a reduction of 35.2 per cent by 2029, which corresponds to a 10 per cent reduction of the average HFC consumption in the refrigeration servicing sector during the baseline years; and

(c) In line with decision 92/37, the requested funding for stage I has been modified from US $685,500 to US $432,000, and the strategy proposed at the 91st meeting has been accordingly adjusted. A summary of adjustments made to stage I of the KIP for the Niger is presented in table 6.

[10] Decision 91/58(b)

[11] In the absence of the cost guidelines for HFC phase-down, to consider HFC individual investment projects and stage I of KIPs on a case-by-case basis, without setting a precedent for the cost guidelines or any future HFC individual investment projects and stage I of KIPs.

[12] Decision on the level and modalities of funding for HFC phase-down in the refrigeration servicing sector.

Table 6. Adjustments to stage I of the KIP for the Niger

Component	Proposed cost of stage I of the KIP (US $)		Adjustments made to proposed activities
	91st meeting	93rd meeting	
Domestic and commercial refrigeration servicing	213,000	145,000	Assistance to SMEs in commercial refrigeration will be undertaken under the HPMP. Technology demonstration for end users was replaced with technology awareness activities for refrigeration stakeholders. Budget for other activities has been reduced.
AC servicing	60,000	45,000	Technician training will be undertaken as part of the ongoing HPMP activities. Budget for technology demonstration project was reduced.
MAC servicing	118,000	80,000	Budget for all activities has been reduced.
Refrigerant management	65,500	0	Assessment of a reclaiming centre will be made under the HPMP. Studies on the management of end-of-life refrigerants and appliances were removed.
Regulatory framework	168,000	120,000	Budget for all activities has been reduced.
Project coordination	61,000	42,000	Budget for all activities has been reduced.
Total	**685,500**	**432,000**	

Technical and cost-related issues

35. Regarding the adjustments shown in table 6, UNIDO clarified that the technical assistance to SMEs in the commercial refrigeration sector removed from the KIP would still be carried out through the centre of excellence established under stage II of the HPMP, while the KIP technology awareness project proposed will complement this assistance by building awareness among stakeholders in the domestic and commercial refrigeration sectors on the economic and environmental benefits of adopting alternatives with low GWP and high energy efficiency. The project will include workshops for importers of equipment, components and refrigerants to discuss plans to restrict import quotas for R-404A and the need for phasing out its use in new installations; workshops for SMEs on the available alternatives to R-404A;[13] consultations with ministries and regional economic communities to prepare for an eventual ban of R-404A; and related awareness material to be produced and disseminated among stakeholders.

36. Regarding the technology demonstration project in the AC servicing subsector, UNIDO explained that it would assist two major equipment importers in the country in integrating R-290-based technology (i.e., refrigerant, equipment, and components) in their supply channels by facilitating the import of 200 mini-split AC units for demonstration and performance monitoring, and promoting this technology among end users. A total of 40 units will be installed by trained technicians in technical institutes and designated locations for training purposes and to monitor performance and energy use. The remaining 160 units will be distributed among the importers and sold, with both enterprises providing US $50,000 each in co-financing. In line with decision 92/36, UNIDO was requested to report, upon completion of this project, on the achieved HFC phase-out and energy-efficiency gains. As agreed at the 91st meeting, funds for this activity will only be requested along with the second tranche, allowing additional time to increase worldwide availability of R-290 refrigerant, equipment and components.

37. Regarding the local installation and assembly subsector, the Secretariat noted the preliminary estimations made by the Government and UNIDO, as well as their expressed interest in continuing to collect data during stage I of the KIP in order to gain a better understanding of the sector.

[13] Including, in line with the 2022 Refrigeration Technical Options Committee Assessment Report, R-290 and R-744 as low-GWP refrigerants, and R-454A, R-448A, and R-449A as medium-GWP refrigerants.

Tranche distribution and plan of action for the first tranche

38. The Secretariat noted that the revised stage I of the KIP, as submitted, only included limited activities (i.e., technician training) in the domestic and commercial refrigeration sectors, while other important activities, such as the provision of tools to technicians and technology awareness to reduce the use of R-404A in the commercial refrigeration sector, were planned to start only under the second tranche, i.e., in 2026. Noting that those sectors had the largest HFC consumption, the Secretariat and UNIDO agreed to move some of those activities to the first tranche. Consequently, funding recommended for the first tranche has been agreed at US $150,000, including US $100,000 approved at the 91st meeting, to cover the provision of tools to technicians, support to industry associations, and initiation of technology awareness workshops for end users, importers and SMEs in the refrigeration sector. The first funding tranche of stage I of the KIP, will continue to be implemented until December 2026. The remaining activities to be implemented under the revised first tranche include:

(a) *Domestic and commercial refrigeration servicing (UNIDO, UNEP) (US $75,000):* provision of four sets of tools and equipment for training on refrigeration and technology awareness workshops targeting importers, SMEs and end users (UNIDO) (US $60,000); training on the safe handling of R-600a for 60 refrigeration technicians not trained under the HPMP, and support to the industry association (UNEP) (US $15,000);

(b) *MAC servicing (UNIDO) (US $30,000):* development of a code of good practices for the MAC sector, including a gender component, and provision of two sets of tools and equipment to training institutes for technician training on MAC;

(c) *Regulatory framework and control mechanisms (UNIDO, UNEP) (US $35,000):* continued strengthening of the HFC licensing and quota system and awareness-raising campaigns to sensitize key stakeholders to KIP-related issues and activities (UNIDO) (US $15,000); strengthening of the electronic customs platform (software application) to include HFC imports, development of a curriculum for customs and enforcement officers and related training of customs officers, and ongoing market monitoring, including surveys on illegal trade and imports of refrigerants (UNEP) (US $20,000); and

(d) *Project coordination and monitoring (UNIDO) (US $10,000):* international and national consultants (US $3,000), travel (US $4,000), consultation meetings (US $2,000), and other expenses (US $1,000).

39. In addition, UNIDO agreed to programme the KIP tranches (initially proposed in 2026 and 2028) in the same years as the HPMP tranches (2025, 2027 and 2030) to reduce the administrative and reporting burden on the country, the implementing agencies and the Executive Committee. As a result, the total number of all future tranches of the two multi-year agreements has decreased from five to three.

Impact on the climate

40. The activities proposed, including efforts to promote low-GWP alternatives and technician training in good servicing practices, indicate that the implementation of stage I of the KIP will reduce the emissions of HFCs into the atmosphere, resulting in climate benefits. A calculation of the impact on the climate of the activities in the KIP indicates that the Niger will achieve an annual emission reduction of 429,696 CO_2-eq tonnes of HFCs when the final target in stage I of its KIP is achieved, calculated as the difference between the HFC baseline and the final target set in stage I.

Sustainability of the HFC phase-down and assessment of risks

41. The commitments and activities of stage I of the KIP will be sustained over time with the implementation and strengthening of the licensing and quota system for HFCs, continuous market monitoring including surveys, strengthening of the HFC import records by the customs and record keeping by the enterprises, and continuous monitoring of all implemented activities.

42. One of the potential risks identified by UNIDO was the political situation in the country potentially depriving the NOU from having sufficient and timely resources to implement the KIP and the HPMP. To help ensure sufficient and timely funding and access to necessary resources, the implementing agencies, the National Ozone Committee, and the NOU are currently coordinating an implementation roadmap, with UNIDO to closely monitor the timetable of this process. UNIDO also confirmed that it maintains permanent contact with the NOU, which despite of the recent changes in the Government, continues to be fully operational and staffed. The NOUs receives support from its Ministry and has resumed the implementation of activities such as trainings and awareness raising activities.

43. The risk of a potential lack of engagement by key stakeholders will be addressed through awareness-building activities included in the project. The low risk of non-compliance will be mitigated by imposing HFC quotas and maintaining open communication channels with importers. Furthermore, UNIDO reported that the Government will assess whether establishing quotas on HFC-based domestic refrigerators would contribute to the uptake of R-600a technology in the country, and will consider establishing zero quotas for the imports of HFC-23 to avoid the risk of its introduction into the country, where it is neither produced nor imported at present.

44. The risk that technologies promoted through the KIP could be inaccessible to the country will be mitigated by UNIDO through facilitating coordination with global suppliers and engaging importers and distributors in the demonstration and awareness projects. Finally, the risk of delays for activities requiring regional coordination (e.g., regional regulations) will be mitigated by the implementing agencies facilitating dialogue among the NOUs of the member states of the Economic Community of West African States and including national representatives of the regional bodies in the National Ozone Committee.

Co-financing

45. The two equipment importers participating in the technology demonstration project in the AC sector will provide co-financing for US $50,000 each. The establishment of a certification scheme and a licensing system for workshops and the strengthening of record keeping by both customs and the enterprises are expected to continue being self-financed by local institutions once the project is completed.

2023-2025 business plan of the Multilateral Fund

46. UNIDO and UNEP are requesting US $432,000, plus agency support costs, for the implementation of stage I of the KIP for the Niger. The total value of US $303,265, including agency support costs, requested for the period of 2023–2025, has not been included in the business plan for the relevant period. The reason is that the revised stage I as submitted did not include additional funding for the first tranche and only programmed the second tranche in 2026. The funds requested for the period 2023-2025 are the result of increasing the first tranche by prioritizing activities in the domestic and commercial refrigeration, and synchronizing the KIP tranches with the HPMP tranches to reduce reporting and administrative burden.

Draft Agreement

47. A draft Agreement between the Government of the Niger and the Executive Committee for stage I of the KIP has not been prepared as the Agreement template is still under consideration by the Executive Committee. In the absence of an Agreement, UNIDO provided a table including the estimated HFC

reduction commitments and the tranches to be requested during the period covered by stage I of the KIP, as shown in Annex I.

RECOMMENDATION

48. The Executive Committee may wish to consider:

(a) Approving, in principle, stage I of the Kigali HFC implementation plan (KIP) for the Niger for the period 2023-2030 to reduce HFC consumption by 35.2 per cent of the country's baseline in 2029 (i.e., 10 per cent from its average HFC consumption in the baseline years), in the amount of US $469,140, consisting of US $317,000, plus agency support costs of US $22,190, for UNIDO and US $115,000, plus agency support costs of US $14,950, for UNEP, as reflected in the schedule contained in Annex I of the present document;

(b) Noting that upon completion of the technology demonstration project for end users included in stage I of the KIP, UNIDO will submit a final report on the implementation of this project, including the HFC phase-out and energy-efficiency gains achieved, in line with decision 92/36(g);

(c) Approving the first tranche of stage I of the KIP for the Niger, and the corresponding tranche implementation plan, in the amount of US $162,600, consisting of US $115,000, plus agency support costs of US $8,050, for UNIDO and US $35,000, plus agency support costs of US $4,550, for UNEP, noting that, in line with decision 91/58(b), the following portion of the approval has already been transferred in advance to the implementing agencies at the 91st meeting: US $80,000 plus agency support cost of US $7,200 to UNIDO, and US $20,000, plus agency support cost of US $2,600 to UNEP; and

(d) Requesting the Government of the Niger, UNIDO, UNEP and the Secretariat to finalize the draft Agreement between the Government of the Niger and the Executive Committee for the reduction in consumption of HFCs, including the information contained in the annex referred to in subparagraph (a) above, and to submit it to a future meeting once the KIP Agreement template has been approved by the Executive Committee.

Annex I

SCHEDULE OF HFC PHASE-DOWN AND HCFC PHASE-OUT COMMITMENTS AND FUNDING TRANCHES UNDER THE KIGALI HFC IMPLEMENTATION PLAN AND THE HCFC PHASE-OUT MANAGEMENT PLAN FOR THE NIGER

Kigali HFC implementation plan (stage I)

Row	Particulars	2023	2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex F substances (CO_2-eq tonnes)	n/a	1,222,358	1,222,358	1,222,358	1,222,358	1,222,358	1,100,122	1,100,122	n/a
1.2	Maximum allowable total consumption of Annex F substances (CO_2-eq tonnes)	n/a	935,450	911,652	887,506	864,056	840,258	792,662	792,662	n/a
2.1	Lead IA (UNIDO) agreed funding (US $)	115,000	0	94,500	0	69,500	0	0	38,000	317,000
2.2	Support costs for Lead IA (US $)	8,050	0	6,615	0	4,865	0	0	2,660	22,190
2.3	Cooperating IA (UNEP) agreed funding (US $)	35,000	0	35,000	0	40,000	0	0	5,000	115,000
2.4	Support costs for Cooperating IA (US $)	4,550	0	4,550	0	5,200	0	0	650	14,950
3.1	Total agreed funding (US $)	*150,000	0	129,500	0	109,500	0	0	43,000	432,000
3.2	Total support costs (US $)	*12,600	0	11,165	0	10,065	0	0	3,310	37,140
3.3	Total agreed costs (US $)	*162,600	0	140,665	0	119,565	0	0	46,310	469,140

*****Including the $100,000 advanced at the 91st meeting

HCFC phase-out management plan (stage II)

Row	Particulars	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	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	5.19	0	n/a
2.1	Lead IA (UNIDO) agreed funding (US $)	0	0	166,000	0	167,500	0	0	118,100	695,000
2.2	Support costs for Lead IA (US $)	0	0	11,620	0	11,718	0	0	8,267	48,650
2.3	Cooperating IA (UNEP) agreed funding (US $)	0	0	84,500	0	90,000	0	0	62,500	345,000
2.4	Support costs for Cooperating IA (US $)	0	0	10,985	0	11,700	0	0	8,125	44,850
3.1	Total agreed funding (US $)	0	0	250,500	0	257,400	0	0	180,600	1,040,000
3.2	Total support costs (US $)	0	0	22,605	0	23,418	0	0	16,392	93,500
3.3	Total agreed costs (US $)	0	0	273,105	0	280,818	0	0	196,992	1,133,500

Annex II

SIMULTANEOUS IMPLEMENTATION OF THE HCFC PHASE-OUT MANAGEMENT PLAN AND THE KIGALI HFC IMPLEMENTATION PLAN IN THE NIGER

Area of work	HPMP		KIP		Combined cost
	Activity	Cost	Activity	Cost	
Updates to the regulatory framework	Updating the national regulatory framework and quota system; study on safety standards for flammable refrigerants; licensing and eventually banning imports of HCFC-22-based equipment	55,000	Strengthening of the HFC licensing and quota system, development, revision and adoption of standards, labeling of refrigerants, licensing of service workshops	30,000	83,000
Training of customs officers	Training of 640 customs and enforcement officers	100,000	Training of 60 customs and enforcement officers	15,000	115,000
Provision of tools to customs	Provision of 10 refrigerant identifiers	43,300	Provision of seven (7) refrigerant identifiers to customs	35,000	78,300
Training of RAC technicians	Training of 800 technicians	190,000			190,000
Training of refrigeration technicians			Training of 180 servicing technicians in domestic, commercial, and industrial refrigeration	45,000	45,000
Training of MAC technicians			Training of 80 MAC technicians	20,000	20,000
Provision of tools for AC training	Provision of tools for four (4) vocational schools and seven (7) branches of the industry association	118,100			118,100
Provision of tools for refrigeration training			Provision of tools and equipment for refrigeration training	50,000	50,000
Provision of tools for MAC training			Provision of tools and equipment for MAC training	40,000	40,000
Certification of technicians	Establishment of a certification scheme	40,000	Extending the certification scheme to MAC	10,000	50,000
Development of codes and standards	Development of a code of practice for RAC	23,500	Development of a code of practice for MAC	10,000	33,500
Curriculum development and updates	Updating the curricula of vocational schools	15,000	Development of a curriculum for customs officers	5,000	15,000
Centres of excellence	Establishment of a centre of excellence, purchase of 70 refrigerant recovery and recycling units	290,100			290,100
Awareness raising	Awareness building among end users and government institutions	80,000	Awareness building for end users in priority sectors	20,000	140,000
			Technology awareness projects in refrigeration sector	40,000	
Consumption monitoring			Strengthening of HFC import records by the customs and record keeping by enterprises, improved market monitoring	15,000	15,000
Supporting industry associations			Supporting industry associations in all sectors	10,000	10,000
Technology demonstrations			Technology demonstration project for residential AC	45,000	45,000
Coordination and management		85,000	Coordination and management	42,000	127,000
	Total for the HPMP	**1,040,000**	**Total for the KIP**	**432,000**	**1,472,000**