UNITED NATIONS **EP**

United Nations Environment Programme

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/94/37
27 April 2024

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-fourth Meeting
Montreal, 27-31 May 2024
Item 9(d) of the provisional agenda[1]

PROJECT PROPOSAL: THE GAMBIA

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) UNEP and UNIDO

[1] UNEP/OzL.Pro/ExCom/94/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

The Gambia

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

LATEST ARTICLE 7 DATA (Annex F)	Year: 2022	110.48 mt	258,735 CO_2-eq tonnes

SECTORAL HFC CONSUMPTION DATA (CO_2-eq tonnes) AND ACTIVITIES

	Aerosol	Foam	Fire-fighting	AC and refrigeration			Solvent	Other
				Manufacturing			Servicing		
				Refrigeration	AC	Other			
As submitted 2022	0	0	0	0	0	0	258,788	0	0
Latest CP report (2023)	0	0	0	0	0	0	258,735	0	0
KIP stage I activities as agreed (Y/N)	N	N	N	N	N	N	Y	N	N

AVERAGE 2020-2022 HFC CONSUMPTION IN SERVICING	97.73 mt	238,062 CO_2-eq tonnes

BASELINE CONSUMPTION DATA (CO_2-eq tonnes)	2020	2021	2022	Average 2020-2022
HFC annual consumption	173,033	282,417	258,735	238,062
HCFC baseline (65%)				33,453
HFC baseline				271,515

HFC CONSUMPTION ELIGIBLE FOR FUNDING	
Starting point for sustained aggregate reductions	n/a
Previously approved HFC phase-down investment projects	No
Aggregate reductions from previously approved projects (CO_2-eq tonnes)	n/a

PROJECT DATA AS AGREED			2024*	2025	2026	2027	2028	2029	Total
Consumption (CO_2-eq tonnes)	Montreal Protocol limits		271,515	271,515	271,515	271,515	271,515	244,363	n/a
	Maximum allowable		271,515	271,515	271,515	271,515	271,515	244,363	n/a
	Maximum allowable (%)		100	100	100	100	100	90	n/a
Amounts recommended in principle (US $)	UNEP	Project costs	50,150	0	0	42,250	0	0	92,400
		Support costs	6,520	0	0	5,493	0	0	12,012
	UNIDO	Project costs	30,000	0	0	47,600	0	0	77,600
		Support costs	3,900	0	0	6,188	0	0	10,088
	Total project costs		80,150	0	0	89,850	0	0	170,000
	Total support costs		10,420	0	0	11,680	0	0	22,100
	Total funds		90,570	0	0	101,530	0	0	192,100

* Recommended for approval at the present meeting

Reduction from stage I in CO_2-eq tonnes	27,152

Secretariat's recommendation:	Individual consideration (Secretariat presentation not required)

PROJECT DESCRIPTION

1. The present document contains the following sections:

I. Summary of the proposal as submitted

II. Background: Implementation status of the country's HCFC phase-out management plan

III. HFC consumption: Overview of the country's HFC consumption levels, trends, and sectoral uses

IV. Stage I of the Kigali HFC implementation plan, as submitted: Overarching strategy and plan of implementation for the first tranche

V. Secretariat's comments, including the agreed cost of activities

VI. Recommendation

I. Summary of the proposal as submitted

2. On behalf of the Government of the Gambia, UNEP as the lead implementing agency has submitted a request for stage I of the Kigali HFC implementation plan (KIP), at a total cost of US $192,100, consisting of US $97,450, plus agency support costs of US $12,669 for UNEP and US $72,550, plus agency support costs of US $9,431 for UNIDO, as originally submitted.[2]

3. The implementation of stage I of the KIP will assist the Government of the Gambia in meeting the target of 10 per cent reduction from its HFC baseline consumption by 1 January 2029.

4. The first tranche of stage I of the KIP being requested at this meeting amounts to US $97,350, consisting of US $68,950, plus agency support costs of US $8,964 for UNEP and US $17,200, plus agency support costs of US $2,236 for UNIDO, as originally submitted, for the period of June 2024 to June 2027.

II. Background

Status of implementation of the HCFC phase-out management plan

5. Table 1 presents information on the HCFC phase-out management plan (HPMP) in the Gambia as of May 2023.

Table 1. HPMP implementation status for the Gambia

	Stage I	**Stage II**
Meetings when HPMP was approved/updated	65th/71st	86th/93rd
Reduction from baseline	35% by 2020	100% by 2030
Total project cost (US $)	210,000	640,000
Date of completion (actual/planned)	31 December 2021	31 December 2031

Status of implementation of previous HFC-related activities

6. Table 2 presents an overview of activities implemented in the Gambia in the context of the Kigali Amendment that have been funded by the Multilateral Fund.

[2] As per the letter of 5 February 2024 from the National Environment Agency of the Gambia to the Secretariat.

Table 2. Previously approved HFC-related activities in the Gambia

Approval meeting	Project title	Implementing agency	Cost (US $)	Date of completion
74th	Survey of ozone depleting substance (ODS) alternatives	UNEP	40,000	August 2017
80th	Enabling activities for HFC phase-down	UNIDO	95,000	June 2021

III. HFC consumption overview

HFC consumption levels

7. The Gambia only imports HFCs for use in the refrigeration and air-conditioning (RAC) servicing sector. The most consumed substances in 2022 were R-410A (36 per cent of total HFC consumption in CO_2-equivalent (CO_2-eq) tonnes), R-404A (30 per cent), R-407A and R-507A (12 per cent each), and HFC-134a (9 per cent). Table 3 presents the country's HFC consumption as reported to the Ozone Secretariat under Article 7 of the Montreal Protocol.

Table 3. HFC consumption in the Gambia (2020–2023 Article 7 data)

HFC	GWP	2020	2021	2022	2023*
Metric tonnes (mt)					
HFC-134a	1,430	20.20	18.75	16.00	16.00
R-404A	3,922	16.20	21.42	20.00	20.00
R-407A	2,107	0.00	16.23	15.00	15.00
R-407C	1,774	24.50	0.00	0.00	0.00
R-410A	2,088	17.80	41.16	45.00	45.00
R-507A	3,985	0.00	12.92	8.00	8.00
Total (mt)		**78.70**	**110.48**	**104.00**	**104.00**
CO_2-eq tonnes					
HFC-134a	1,430	28,886	26,813	22,880	22,880
R-404A	3,922	63,530	84,001	78,432	78,432
R-407A	2,107	0	34,197	31,605	31,605
R-407C	1,774	43,459	0	0	0
R-410A	2,088	37,158	85,922	93,938	93,938
R-507A	3,985	0	51,486	31,880	31,880
Total (CO_2-eq tonnes)		**173,033**	**282,417**	**258,735**	**258,735**

* Country programme data

Established HFC baseline

8. The Government of the Gambia reported Article 7 data for 2020-2022. The country's HFC consumption baseline was established at 271,515 CO_2-eq tonnes by adding 65 per cent of its HCFC baseline (expressed in CO_2-eq tonnes) to its average HFC consumption in 2020-2022, as shown in table 4.

Table 4. HFC baseline calculation for the Gambia (CO_2-eq tonnes)

Baseline calculation components	2020	2021	2022
HFC annual consumption	173,033	282,417	258,735
HFC average consumption in 2020-2022			238,062
HCFC baseline (65%)			33,453
HFC baseline			**271,515**

Country programme implementation report

9. The sectoral HFC consumption data provided by the Government of the Gambia in its country programme (CP) implementation report for 2022 is consistent with the data reported under Article 7 of the Montreal Protocol.

HFC consumption trends

10. While import data has been reported under Article 7 only since 2020, data obtained through the sectoral survey from 2016 shows a steadily increasing trend in HFC imports. In 2020 there was a smaller growth rate in HFCs (3 per cent) than seen in the previous years (average annual growth of 13 per cent) while in 2021 there was a significant increase (40 per cent) due in part to extra imports made by importers in response to market and shipping challenges. In 2022, while HFC imports were lower than in 2021, they were still larger than in all other previous years for the same reasons.

HFC consumption by sector

11. HFCs are mainly consumed for servicing in the residential and commercial air-conditioning (AC) sectors (57.6 per cent in mt and 48.4 per cent in CO_2-eq tonnes), followed by commercial/industrial refrigeration (22.6 per cent in mt and 33.3 per cent in CO_2-eq tonnes), mobile air-conditioning (MAC) (12.4 per cent in mt and 7.1 per cent in CO_2-eq tonnes) and marine refrigeration (6.8 per cent in mt and 10.8 per cent in CO_2-eq tonnes), while domestic and transport refrigeration consume less than 1 per cent of HFCs, as shown in tables 5 and 6.

Table 5. HFC consumption in the Gambia by refrigeration and AC servicing subsector in mt (2022)

Servicing subsectors	HFC-134a	R-410A	R-404A	R-407A	R-507A	Total	Share of total (%)
Refrigeration subsectors							
Domestic refrigeration	0.58	0.00	0.00	0.00	0.00	0.58	0.6
Commercial/ industrial refrigeration	2.33	0.31	14.07	0.00	6.77	23.48	22.6
Marine refrigeration	0.00	0.00	5.89	0.00	1.23	7.12	6.8
Transport refrigeration	0.05	0.00	0.05	0.00	0.00	0.10	0.1
Air-conditioning subsectors							
Residential and commercial AC	0.18	44.69	0.00	15.00	0.00	59.87	57.6
Mobile AC	12.87	0.00	0.00	0.00	0.00	12.87	12.4
Total	16.01	45.00	20.01	15.00	8.00	104.02	100.0

Table 6. HFC consumption in the Gambia by refrigeration and AC servicing subsector in CO_2-eq tonnes (2022)

Servicing subsectors	HFC-134a	R-410A	R-404A	R-407A	R-507A	Total	Share of total (%)
Refrigeration subsectors							
Domestic refrigeration	829	0	0	0	0	829	0.3
Commercial/ industrial refrigeration	3,332	647	55,177	0	26,978	86,134	33.3
Marine refrigeration	0	0	23,098	0	4,902	28,000	10.8
Transport refrigeration	72	0	196	0	0	268	0.1

Servicing subsectors	HFC-134a	R-410A	R-404A	R-407A	R-507A	Total	Share of total (%)
Air-conditioning subsectors							
Residential and commercial AC	257	93,290	0	31,605	0	125,153	48.4
Mobile AC	18,404	0	0	0	0	18,404	7.1
Total	**22,894**	**93,938**	**78,471**	**31,605**	**31,880**	**258,788**	**100.0**

Refrigeration and air-conditioning servicing sector

12. There are approximately 400 RAC technicians (it is estimated that around 1 per cent are women) and more than 100 RAC workshops consuming HFCs in the Gambia, of which 80 are certified by the Refrigeration Association of the Gambia. A certification system for technicians is in the process of being implemented under stage II of the HPMP. As of 2022, the Gambia Technical Training Institute (GTTI) was the only institution accredited for certifying RAC technicians in the country.

Domestic, commercial, industrial, marine and transport refrigeration servicing

13. Domestic refrigeration only consumes 0.3 per cent of HFCs in CO_2-eq tonnes. The sector includes refrigeration equipment such as refrigerators, chest freezers, and portable cooling systems that are found in residential households, as well as in some commercial buildings. The dominant refrigerant used is HFC-134a, with 55 per cent of domestic refrigerators containing this substance, followed by R-600a (35 per cent) and R-290 (10 per cent).

14. In 2022, commercial and industrial refrigeration collectively accounted for the second highest consumption of HFCs, totaling 33.3 per cent of the HFC consumption in CO_2-eq tonnes. Commercial refrigeration encompasses mini-condensing systems and standalone units commonly utilized by supermarkets, cold rooms, pharmaceutical enterprises, restaurants, and small shops. Industrial refrigeration comprises large centralized systems predominantly employed in industrial processes. The most prevalent refrigerant used in these subsectors is R-404A (60 per cent), followed by R-507A (29 per cent). There is no evidence of independent enterprises dedicated to the local installation and assembly of large RAC systems. They are assembled, installed and charged in-situ by equipment manufacturers through local representation in the country.

15. Marine refrigeration includes four authorized ice-making facilities and 17 authorized fishing vessels. The ice-making facilities typically use R-404A and R-507A as refrigerants, while the vessels rely on HCFC-22, being phased out under the HPMP. Transport refrigeration contributes 0.1 per cent in CO_2-eq tonnes of the HFC consumption. It consists of refrigerated cargo areas for trucks and vans, primarily using R-404A (50 per cent), followed by HFC-134a (45 per cent) and HCFC-22 (5 per cent).

Residential, commercial, and mobile air-conditioning servicing

16. Residential and commercial AC combined represent the highest HFC consumption (48.4 per cent in CO_2-eq tonnes). The predominant HFC consumed is R-410A (74.5 per cent) followed by R-407A[3] (25 per cent) and a very small amount of HFC-134a. Residential AC comprises single-split units prevalent in households and small to large commercial establishments (of which 92 per cent are R-410A-based and 8 per cent are HCFC-22-based). The commercial AC sector includes multi-splits, ducted-splits, roof-top AC, AC chillers and centralized systems, commonly found in large office spaces, airports, shopping centres, hotels, hospitals, and supermarkets.

[3] The survey gathered information that R-407A is sometimes used to retrofit HCFC-22 refrigerant in commercial ACs even though this may not be suitable.

17. The MAC sector provides climate control for small and large vehicles, amounts to 7.1 per cent of the HFC consumption in CO_2-eq tonnes and relies only on HFC-134a. There are approximately 120 vehicle garages in the country.

IV. Stage I of the Kigali HFC implementation plan as submitted

Institutional, policy and regulatory framework

18. The National Ozone Unit (NOU) in the National Environment Agency (NEA) is the coordinating institution for the implementation of Montreal Protocol activities. The Gambia established regulations to control ODS in 1999 and revised them in 2019 to *inter alia* include control measures for HFCs. The 2019 amendment requires a licence for the import, sale or handling of controlled substances and empowers NEA to issue licenses and enforce compliance for the importation and trade of controlled substances. License holders are required to keep accurate records and submit annual reports to NEA. Quota allocationsare provided to importers through an official notification. The regulation also requires that controlled substances are handled professionally by RAC technicians and promotes capacity building of handlers of controlled substances to minimize their emissions.

19. A ban on the import of HCFC-22-based equipment has been in force since 1 January 2020 and the Government of the Gambia is currently reviewing the ozone regulations to establish a ban on the import of HCFCs by 1 January 2025.

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

Overarching strategy

20. The Government of the Gambia aims to follow the established Montreal Protocol reduction targets for HFCs to define the stages of its KIP. Accordingly, stage I of the KIP will target a 10 per cent reduction from the baseline by 2029, eliminating 27,152 CO_2-eq tonnes of HFCs. The strategy in stage I is to foster an enabling environment that will allow for the smooth transition to zero/low GWP technologies in HFC consuming sectors by establishing and enforcing the necessary regulatory measures to support HFC phase-down; building the capacity of stakeholders suchs as RAC servicing technicians and enforcement agencies; demonstrating low-GWP technologies in one sector; and raising stakeholder awareness to ensure support for the transition of the RAC sectors to low/zero GWP refrigerants.

Proposed activities and total cost

21. The budget for stage I has been proposed at US $170,000. The costs of activities in the refrigeration servicing sector have been proposed in line with decision 92/37. The proposed activities and their cost are summarized in table 7.

Table 7. Activities planned for implementation in stage I of the KIP for the Gambia (as submitted)

Project component / Planned activities	Cost (US $)	
	UNEP	UNIDO
Legal and regulatory measures to support HFC phase-down		
- Enhance the HFC quota system including the criteria for quota allocation and monitoring; establish a ban on the use of HFCs in the fire suppression, foam, aerosol and solvent sectors by 1 January 2026; revise building codes to promote low-GWP refrigerants and RAC systems with lower refrigerant charges; revise Minimum Energy Performance Standards (MEPS) to include consideration of the type of refrigerant; and develop a national cooling plan (NCP) to assist the Government in scaling up the adoption of low-GWP alternatives in the RAC sector **(UNEP)**	36,600	12,500

Project component / Planned activities	Cost (US $)	
	UNEP	UNIDO
- Establish a ban on the import of domestic refrigeration and commercial stand-alone refrigeration units based on HFC-134a by 1 January 2025 in coordination with relevant government departments; and draft regulatory measures to compel commercial and industrial RAC operators to have in-house recovery equipment to minimise the demand for HFCs **(UNIDO)**		
Enforcement of HFC controls		
- Revise and update the customs training curriculum to include HFCs, low/ zero-GWP refrigerants and the new Harmonized Customs System codes; and provide training for 10 trainers (five men and five women) and 50 customs officers **(UNEP)**	13,800	0
Capacity building in the RAC servicing sector		
- Upgrade the training curricula for RAC vocational training institutions to include HFCs and natural refrigerants; develop a CO_2-training programme at the centre of excellence for instructors, RAC technicians, customs officers, importers and distributors; organize two awareness-raising workshops for 50 RAC equipment and refrigerant importers, distributors and retailers and 50 built-environment professionals and procurement officers on HFCs, low/zero-GWP refrigerants and the Kigali Amendment; and hold a workshop for 20 major vehicle importers to frame a national policy for the MAC sector to shift from the use of HFC-134a to HFOs or another acceptable alternative **(UNEP)** - Provide technical assistance to six selected vehicle garages to become centres of excellence that can be used for technicians training on MAC **(UNIDO)**	22,850	8,700
Demonstration project in the commercial refrigeration sector		
- Demonstrate the installation, operation, performance, servicing and energy use of two R-290-based monoblocks refrigeration units at food preservation enterprises **(UNIDO)**	0	45,950
Gender mainstreaming		
- Create awareness on the RAC industry for 100 junior-level students, both female and male; and encourage women role models in the sector by inclusion of women as presenters in all KIP implementation workshops **(UNEP)**	12,600	0
Project coordination and monitoring		
- Project coordinator, consultants and experts **(UNEP)(UNIDO)**	11,600	5,400
Subtotals per agency	**97,450**	**72,550**
Total		**170,000**

Gender policy implementation

22. The Government of the Gambia plans to adopt a National Gender Policy that seeks to empower women to participate and benefit from all national development. In line with decisions 84/92(d), 90/48(c) and 92/40(b), stage I of the KIP will consider gender equality and women's empowerment for all aspects of implementation, promote gender-balanced participation in training and capacity-building activities and establish links with government agencies, private sector, non-governmental and community-based organisations and associations whose work focuses on gender mainstreaming. UNEP confirmed that the Government of the Gambia will report on all of the Multilateral Fund mandatory gender mainstreaming indicators[4] in KIP progress reports and tranche requests, including inter alia number of women and men employed through the project, progress of the gender mainstreaming activities, quantitative data disaggregated by sex for the activities implemented, knowledge products on gender produced, good practices and lessons learned, and allocation of financial resources for gender activities.

[4] As proposed in Annex XXII of UNEP/OzL.Pro/ExCom/92/56

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

23. The Government of the Gambia is committed to harmonizing the implementation of HPMP and KIP activities to the extent possible, noting that the HPMP will be implemented until 2030 and that UNEP and UNIDO will be the implementing agencies for both projects. Activities under stage II of the HPMP include *inter alia* robust components on training of customs officers, training and certification of RAC technicians on good servicing practices, strengthening of centres of excellence and distribution of tools, promoting the recovery and reuse of refrigerants, and the development of technical standards. The KIP is focused on creating an enabling environment for the adoption on low-GWP alternatives, including updates to the customs and RAC vocational institutions curricula to include HFCs and low/zero-GWP alternative refrigerants, provision of training on HFCs and natural refrigerants, demonstration of equipment based on low-GWP alternatives, and creation of centres of excellence in the MAC sector to provide training on good servicing practices, not covered under the HPMP.

24. Stage I of the KIP will be implemented in two tranches. The schedule of HFC phase-down and HCFC phase-out commitments, and the activities and associated cost of stage I of the KIP and stage II of the HPMP are presented in annexes I and II, respectively, to the present document.

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

25. The first funding tranche of stage I of the KIP, in the total amount of US $86,150, will be implemented between June 2024 and December 2026 and will include the following activities:

(a) *Legal and regulatory measures to support HFC phase-down (US $33,800):*

(i) Enhance the HFC quota system including the criteria for quota allocation and monitoring; issue the ban on the use of HFCs in the fire suppression, foam, aerosol and solvent sectors by 1 January 2026; revise building codes to promote low-GWP refrigerants and RAC systems with lower refrigerant charges; revise MEPS to include consideration of the type of refrigerant (UNEP) (US $27,300);

(ii) Issue the ban on the import of domestic refrigeration and commercial stand-alone refrigeration units based on HFC-134a by 1 January 2025; and draft legislation to compel commercial and industrial RAC operators to have in-house recovery equipment to minimise the purchase of HFCs (UNIDO) (US $6,500);

(b) *Enforcement of HFC controls:* Revise and update customs training curriculum to include HFCs, low/zero-GWP refrigerants and the new Harmonized Customs System codes; provide training for 10 trainers (five men and five women) and 50 customs officers on the revised curriculum (UNEP) (US $10,300);

(c) *Capacity building in the RAC servicing sector (US $28,750):*

(i) Update the training curricula for RAC vocational institutions to include HFCs and natural refrigerants; develop a CO_2-training programme at the centre of excellence aimed at instructors, RAC technicians, customs officers, importers and distributors; organize two awareness-raising workshop on HFCs, HC, natural refrigerants and the Kigali Amendment for 25 importers, distributors and retailers and 25 built-environment professionals and procurement officers; consultation with 20 vehicle importers to frame a national policy for the MAC sector to shift from the use of HFC-134a to HFOs or another acceptable natural refrigerant (UNEP) (US $20,050);

(ii) Support and licence two selected vehicle garages to become centres of excellence, which can be used for MAC technician training (UNIDO) (US $8,700);

(d) *Gender mainstreaming:* Initiate awareness-raising for 100 junior-level female students on the RAC industry and encourage women role models in the sector by inclusion of women presenters in all KIP implementation workshops (UNEP) (US $6,300); and

(e) *Project coordination and monitoring activities*: Funding to be allocated for staff to support implementation (UNEP) (US $5,000) and (UNIDO) (US $2,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

V. Comments

Overarching strategy

26. The Secretariat and UNEP discussed the reasons behind the significant surge in HFC consumption in 2021, which stood 40 per cent higher than that in 2020, mainly due to R-410A and R-507A. HFC consumption in 2022, although slightly lower than in 2021, was also largely above the levels recorded in previous years. UNEP explained that HFC consumption had been steadily increasing from 53.47 mt in 2016 to 76.56 mt in 2019, halting in 2020 due to the COVID-19 pandemic. The HFC consumption figures reported in 2021 and 2022 (110.48 mt and 104.00 mt, respectively) were partially influenced by increased imports as a precautionary measure against potential shortages arising from the market and shipping challenges associated with the pandemic.

27. UNEP also explained that HFC consumption data had only been comprehensively recorded and reported from 2020. Therefore, it was unclear whether HFC consumption in previous years had been different from the estimations provided. Furthermore, it was also challenging to determine what portion of the recorded HFC consumption in 2021 and 2022 was to serve regular refrigerant needs. The 2023 CP implementation report was received by the time of issuance of the present document, and while there was not sufficient time to analyse the data in detail, the Secreteriat noted that the level of HFC consumption reported was similar to that in 2022.

28. Stage I of the KIP proposes to achieve a maximum allowable consumption of 244,363 CO_2-eq tonnes by 2029, which is 10 per cent below the HFC baseline but above the average consumption for 2020-2022 of 238,062 CO_2-eq tonnes, including the increased imports in 2021. The Secretariat enquired whether the Government of the Gambia considered HFC consumption targets lower than the Montreal Protocol between 2024 and 2029. UNEP explained that the country's HFC consumption is expected to continue growing above the control measures, and the KIP activities are expected to assist the country in complying with the Montreal Protocol targets.

29. Noting that the reported HFC consumption in 2021 and 2022 may not be representative of the local market's regular consumption needs, in line with similar cases in KIPs considered at the 93rd meeting, the Secretariat and UNEP agreed that the Government of the Gambia would continue to monitor its HFC consumption to understand the extent to which the reported consumption in baseline years was representative of the local market's needs and to assess future HFC demand, and would provide that analysis when submitting the second tranche of its KIP. Based on the information provided, the maximum allowable consumption limits for the remaining years of stage I of the KIP, as contained in Appendix 2-A to the future Agreement between the Government of the Gambia and the Executive Committee would be revised as necessary when the second tranche of the KIP is considered.

Institutional, policy and regulatory framework

HFC licensing and quota system

30. In line with decision 87/50(g), UNEP provided a letter from the Government confirming that the Gambia has an established and enforceable licensing and quota system in place for monitoring HFC imports/exports. The NOU and the Legal and Policy Unit and the Inspection Unit of the NEA are responsible for its implementation. The national import quota is established based on the HFC baseline level; 90 per cent of it is to be allocated in CO_2-eq tonnes to traditional importers based on their historical level of imports and 10 per cent remains available for new importers.

Legal and regulatory measures to support HFC phase-down

31. The Secretariat noted with appreciation the regulatory measures proposed by the Government, including the ban on the import of domestic refrigeration and commercial stand-alone refrigeration units based on HFC-134a by 1 January 2025 and the ban on the use of HFCs in the fire suppression, foam, aerosol and solvent sectors by 1 January 2026. These measures will remove the possibility of new uses for high-GWP HFCs and will contribute to curving the amount of HFC-based equipment requiring future servicing. UNEP explained that for the domestic and stand-alone commercial refrigeration applications the conditions for the ban are in place, as equipment based on R-600a and R-290 is available, and the suppliers have technicians trained in the country to service them. UNEP also informed that the Government is considering future restrictions on R-410A-based single and multi-split units to favor a transition to HFC-32, noting that this technology is becoming available in the subregion.

32. Regarding the request of funds for the preparation of a national cooling plan included in the KIP, the Secretariat noted that a similar activity has already been proposed in the UNEP project funded by the Green Climate Fund (GCF) "National Framework for Leapfrogging to Energy Efficient and Climate Friendly Air Conditioners and Refrigerators in the Gambia." In light of this, and the fact that the development of NCPs is a broader process that many countries are so far pursuing via different sources of available funding, the Secretariat and UNEP agreed to reallocate the US $9,300 programmed for this activity to strengthening the quota system, the training of additional customs trainers and the upgrading of the technician training curricula.

Technical and cost-related issues

Demonstration project

33. The demonstration project included in stage I of the KIP is similar to others proposed in the subregion. In providing further information about the project to demonstrate two R-290-based monoblocks,[5] UNEP explained that the aim of the project is to measure and show how monoblocks can serve as a viable alternative to HFC-based RAC systems used for food preservation and refrigerated storage. The demonstration will focus on replacing two existing R-404A-based systems with single closed R-290-based systems, each with a capacity below 20kW. The end-user will provide the infrastructure and the civil works, while the project will provide the equipment. As the population is growing and the cold chain in the country is developing, refrigerated storage is expected to increase.

34. Upon discussion of the project, it was agreed that over the course of one year, the project will conduct a comparative analysis of the performance and energy usage of both the baseline and newly installed equipment. UNEP and UNIDO reallocated funding from the legal component to the demonstration project to ensure that the monitoring, recording and documentation of the results are properly undetaken.

[5] Refrigeration equipment pre-charged with refrigerant and containing all components required for cooling (compressor, condenser, evaporator, expansion valves and fans) a single unit.

The findings of the project will be disseminated among end-users and technicians, with training sessions on handling flammable refrigerants conducted under the HPMP.

35. It was also agreed that the Government will evaluate the feasibility of enacting future regulatory measures aimed at restricting the use of high-GWP HFCs in this particular application to support the transition to low-GWP technology following the completion of the project.

36. In line with decision 92/36(g), the Secretariat requested UNEP and UNIDO, upon completion of the project, to submit a final report on its implementation, including the HFC phase-out and energy efficiency gains achieved.

Total project cost

37. The total cost for stage I of the KIP for the Gambia (without agency support costs) amounts to US $170,000, as summarized in table 7 below. This is in line with decision 92/37 based on the average HFC consumption in the refrigeration servicing sector for the years 2020-2022. The level of funds recommended remained as requested, with some internal reallocation of funding among activities, as explained in the sections above.

Table 7: Activities and costs as agreed

Project component / Planned activities	Total Cost (US $)		First tranche (US $)	
	UNEP	UNIDO	UNEP	UNIDO
Legal and regulatory measures to support HFC phase-down: funds for the development of NCP reallocated to other activities	21,800	8,500	10,800	8,750
Enforcement of HFC controls: number of customs trainers increased from 10 to 30 (15 men and 15 women)	19,200	0	13,500	0
Capacity building in RAC servicing sector: additional funds allocated for the upgrade of the technician training curricula and the development of the CO_2-training programme	27,200	8,700	13,850	8,450
Demonstration project in the commercial refrigeration sector: including one-year monitoring of performance and energy usage, recording, documentation and dissemination of the results among end-users, and feasibility assessment of future regulatory measures to limit the use of high-GWP HFCs in the application demonstrated	0	55,000	0	10,000
Gender mainstreaming	12,600	0	6,000	0
Project implementation, coordination, and monitoring	11,600	5,400	6,000	2,800
Total per agency	**92,400**	**77,600**	**50,150**	**30,000**
Total		**170,000**		**80,150**

38. Stage I of the KIP will be implemented in two tranches. The second tranche is synchronized with the next HPMP tranche to streamline reporting, as shown in annex I. UNEP explained that two tranches would allow the implementation of activities in an effective manner allowing more time for implementation among tranches and reducing the administrative cost of processing a larger number of smaller tranches.

39. In line with decision 93/105, the Secretariat considered the tranche distribution proposed by UNEP on a case-by-case basis. The proposal of two tranches is consistent with the proposals included in document UNEP/OzL.Pro/ExCom/94/59 on the modalities for the distribution of tranches for KIPs. In the event that the country does not comply with the maximum allowable consumption targets in any year after the approval of the last tranche, the issue would be considered in line with Appendix 7-A of the KIP agreement on "reduction in funding for failure to comply with the targets in the Agreement," noting that any reduction in funding, if applicable, would take place from stage II of the KIP once approved.

Exemption for high-ambient temperature parties

40. The Gambia is one of the countries operating under the high-ambient temperature (HAT) exemption in line with decision XXVIII/2 of the Parties. The decision allows these countries to request exemptions for any specific subsector or use where suitable alternatives do not exist[6] and in its paragraph 35 indicates that the amount of Annex F substances that are subject to the HAT exemption are not eligible for funding under the Multilateral Fund while they are exempted for that party.

41. At the time of issuing this document, the Secretariat was informed that the Gambia had applied for HAT exemption under decision XXVIII/2 of the Parties. However, no specific details regarding the relevant applications were provided. Following discussions, UNEP indicated that although the country had applied for the exemption, it did not intend to use it. Consequently, under the understanding that the Gambia will not use the HAT exemption, all its HFC consumption is eligible for funding under the Multilateral Fund

Co-financing

42. There is currently financing secured from the Global Environment Facility to implement an energy efficiency project which included the procurement of 200 R-290-based AC units to be installed in public institutions (e.g., hospitals and universities). In addition, the beneficiaries of the demonstration project in commercial refrigeration will provide co-financing and the MAC workshops selected as centres of excellence will sign Memorandums of Understanding (MOUs) with the NOU for the use of their facilities at little or no cost for technician training. The development of the NCP funded by the GCF will also contribute to the KIP objectives. During the implementation of the KIP, the NOU will continue to identify additional co-financing opportunities to enhance the results of the KIP.

2024-2026 business plan of the Multilateral Fund

43. UNEP and UNIDO are requesting US $170,000 plus agency support costs, for the implementation of stage I of the KIP for the Gambia. The total value of US $90,570, including agency support costs, requested for the period of 2024–2026, is US $9,888 above the amount in the business plan.

Sustainability of the HFC phase-down and assessment of risks

44. Given the ongoing HCFC phase-out, which includes a planned ban on imports of HCFCs by 1 January 2025, there is a risk of uptake of HFCs in the coming years. This potential increase in HFC consumption is expected to be minimized by the application of the import quota system, the bans on the import and use of HFCs in several sectors, measures to compel commercial and industrial RAC operators to have in-house recovery equipment and the updated of MEPS for domestic RAC equipment including refrigerant considerations planned under the KIP as well as the the training and certification of technicians and the recovery, recycling and reclaiming activities being implemented under the HPMP.

45. Potential risks related to constraints in the supply of low-GWP technologies will be mitigated by supporting equipment importers and the local supply chain during the demonstration project and the implementation of the KIP.

46. To ensure the sustainability of the customs and technician trainings, the associated curriculas will be updated under the KIP to include matters related to HFCs and the Kigali Amendment, and the ongoing certification system already in place will continue to be implemented by local institutions, which will assist the continuation of this activity beyond the KIP.

[6] Exempted equipment for HAT are multi-split air conditioners (commercial and residential); split ducted air conditioners (commercial and residential); and ducted commercial packaged (self-contained) air-conditioners

Impact on the climate

47. The activities proposed, including the enforcement of the quota system for HFCs; compelling commercial and industrial RAC operators to have in-house recovery equipment to reduce demand for HFCs; building technician capacity for good servicing practices; demonstrating low-GWP technologies in the commercial refrigeration sector, indicate that the implementation of stage I of the KIP will reduce refrigerant emissions into the atmosphere, resulting in climate benefits. While the Secretariat is not able to provide an estimate of the avoided emissions from the implementation of the KIP at the present meeting,[7] by 2029 the Gambia will have reduced its annual HFC emissions by approximately 27,152 CO_2-eq tonnes, calculated as the difference between the HFC baseline for compliance and the 2029 target, assuming that all consumed HFCs would eventually have been emitted.

Draft Agreement

48. A draft Agreement between the Government of the Gambia 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.

49. If the Executive Committee so wishes, the funds for stage I of the KIP for the Gambia could be approved in principle, and funds for the first tranche could be approved on the understanding that the Agreement would be prepared and presented at a future meeting, before the submission of the second tranche, and once the Agreement template has been approved.

VI. Recommendation

50. The Executive Committee may wish to consider:

(a) Approving, in principle, stage I of the Kigali HFC implementation plan (KIP) for the Gambia for the period 2024-2029 to reduce HFC consumption by 10 per cent of the country's baseline by 2029, in the amount of US $192,100, consisting of US $92,400, plus agency support costs of US $12,012, for UNEP and US $77,600, plus agency support costs of US $10,088, for UNIDO, as reflected in the schedule contained in annex I to the present document;

(b) Noting:

(i) The commitment of the Government of the Gambia to implement a ban on the import of domestic refrigeration and commercial stand-alone refrigeration units using HFCs by 1 January 2025 and to revise relevant regulations to include a ban on the use of HFCs in fire suppression, foam, aerosols, and solvents sectors in the country by January 2026; and

(ii) That upon completion of the end-user technology demonstration project in commercial refrigeration included in stage I of the KIP, UNIDO will submit a final report on its implementation, including the HFC phase out and energy efficiency gains achieved, in line with subparagraph (g) of decision 92/36;

(c) Noting also:

[7] As noted in document UNEP/OzL.Pro/ExCom/94/14, Overview of issues identified during project review, the Secretariat is in the process of developing a methodology to estimate the avoided emissions from the implementation of HFC phase-down projects supported by the Multilateral Fund.

(i) That the Government of the Gambia would continue to monitor its HFC consumption to understand the extent to which reported consumption in baseline years was representative of the local market's needs and to assess what future HFC demand would be, and would provide that analysis when submitting the second tranche of its KIP; and

(ii) That, on the basis of the information provided in subparagraph (c)(i) above, the maximum allowable consumption limits for the remaining years of stage I of the KIP, as contained in Appendix 2-A to the future Agreement between the Government of the Gambia and the Executive Committee would be revised, if appropriate, when the Committee considered the second tranche of the KIP;

(d) Approving the first tranche of stage I of the KIP for the Gambia and the corresponding tranche implementation plan, in the amount of US $90,570, consisting of US $50,150, plus agency support costs of US $6,520, for UNEP and US $30,000, plus agency support costs of US $3,900, for UNIDO; and

(e) Requesting the Government of the Gambia, UNEP, UNIDO and the Secretariat to finalize the draft Agreement between the Government of the Gambia 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 GAMBIA

Kigali HFC implementation plan (stage I)

Row	Particulars	2024	2025	2026	2027	2028	2029	Total
1.1	Montreal Protocol reduction schedule of Annex F substances (CO_2-eq tonnes)	271,515	271,515	271,515	271,515	271,515	244,363	n/a
1.2	Maximum allowable total consumption of Annex F substances (CO_2-eq tonnes)	271,515	271,515	271,515	271,515	271,515	244,363	n/a
2.1	Lead IA (UNEP) agreed funding (US $)	50,150	0	0	42,250	0	0	92,400
2.2	Support costs for Lead IA (US $)	6,520	0	0	5,493	0	0	12,012
2.3	Cooperating IA (UNIDO) agreed funding (US $)	30,000	0	0	47,600	0	0	77,600
2.4	Support costs for Cooperating IA (US $)	3,900	0	0	6,188	0	0	10,088
3.1	Total agreed funding (US $)	80,150	0	0	89,850	0	0	170,000
3.2	Total support costs (US $)	10,420	0	0	11,680	0	0	22,100
3.3	Total agreed costs (US $)	90,570	0	0	101,530	0	0	192,100

HCFC phase-out management plan (stage II)

Row	Particulars	2020	2021-2022	2023	2024	2025-2026	2027	2028-2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	0.98	0.98	0.98	0.98	0.49	0.49	0.49	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	0.98	0.98	0.98	0.98	0.49	0.49	0.49	0	n/a
2.1	Lead IA (UNEP) agreed funding (US $)	100,000	0	145,000	0	0	106,000	0	54,000	405,000
2.2	Support costs for Lead IA (US $)	13,000	0	18,850	0	0	13,780	0	7,020	52,650
2.3	Cooperating IA (UNIDO) agreed funding (US $)	90,000	0	145,000	0	0	0	0	0	235,000
2.4	Support costs for Cooperating IA (US$)	8,100	0	13,050	0	0	0	0	0	21,150
3.1	Total agreed funding (US $)	190,000	0	290,000	0	0	106,000	0	54,000	640,000
3.2	Total support costs (US $)	21,100	0	31,900	0	0	13,780	0	7,020	73,800
3.3	Total agreed costs (US $)	211,100	0	321,900	0	0	119,780	0	61,020	713,800

Annex II

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

	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US $)
Category of activity	**Activity**	**Cost (US $)**	**Activity**	**Cost (US $)**	
Supporting policies and regulations	Develop policies that support green procurement in public institutions Train 80 procurement officers through four training workshops on energy efficient, low-GWP-refrigerant-based RAC systems and green procurement	20,000	Enhance the HFC quota system including the criteria for quota allocation and monitoring Ban on the use of HFCs in the fire suppression, foam, aerosol and solvent sectors by 1 January 2026 Revise building codes to promote low-GWP refrigerants and RAC systems with lower refrigerant charges; and revise MEPS to include considerations of the type of refrigerant Ban on import of domestic refrigeration and commercial stand-alone refrigeration units based on HFC-134a by 1 January 2025 Draft legislation to compel commercial and industrial RAC operators to have in-house recovery equipment to minimise the purchase of HFC	30,300	50,300
Training of customs officers	Train 15 trainers and 200 customs and law enforcement officers on monitoring, control, and identification of HCFCs and HCFC-based equipment; disseminate training manuals, booklets on ODS regulation, posters, factsheets, and reference materials for customs officers, continue to support the informal Prior-Informed Consent (iPIC) process to validate the import and export of controlled substances	101,000	Revise and update customs training curriculum to include HFCs, natural refrigerants and the new Harmonized Customs System codes; provide training for 10 trainers (five men and five women) and 50 customs officers on the revised curriculum	19,200	120,200
Provision of tools to customs	Distribute five refrigerant identifiers	20,000			20,000
Training of RAC trainers and technicians	Train 10 trainers on hydrocarbon (HC) based air conditioners and train 600 RAC technicians on good refrigeration servicing practices	65,000	Upgrade the training curricula for RAC vocational institutions to include HFCs and natural refrigerants; develop a CO_2 training programme at the centre of excellence aimed at instructors, RAC technicians, customs officers, importers and	27,200	92,200

	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US $)
Category of activity	**Activity**	**Cost (US $)**	**Activity**	**Cost (US $)**	
			distributors; organize two awareness raising workshop for 50 importers, distributors and retailers and 50 built environment professionals and procurement officers on HFCs, HCs, natural refrigerants and the Kigali Amendment; consultation with 20 vehicle importers to frame a National Policy for the MAC sector to shift from the use of HFC-134a to HFOs or another acceptable natural refrigerant		
Certification of technicians	Develop the certification scheme for RAC technicians, and build capacity of key stakeholders involved in the certification process; and update national codes of conduct for RAC servicing technicians and revision of the national RAC training curriculum	25,000			25,000
Centres of excellence	Support 3 existing centres of excellence for training, develop and implement projects to demonstrate low-GWP alternative technologies, and establish 2 new centres including the provision of equipment	79,000	Support and licence six selected vehicle garages to become centres of excellence, which can be used for technicians training in the MAC sector	8,700	87,700
Support for associations	Procurement and distribution of 30 basic tool kits to the RAC association and RAC training institutions	15,000			15,000
Development of national technical standards	Develop national technical standards in the RAC sector for the safe use of energy-efficient, low-GWP RAC systems and train 100 standards officers and environmental and enforcement officers on monitoring and enforcement of the standards	70,000			70,000
Refrigerant recovery and recaiming	Establish one refrigerant recovery and re-use centre with necessary tools and equipment (e.g., reclaim unit for multiple non-flammable refrigerants, refrigerant identifier; laboratory equipment, cylinders, and tanks)	65,000			65,000
Demonstration projects on end-users			Demonstrate the installation, operation, performance, servicing and energy use of two R-290-based monoblocks refrigeration units at two food preservation enterprises	55,000	55,000
Energy efficiency	Two coordination meetings with key stakeholders for enforcement of MEPS; update of training material and	100,000		0	100,000

	HPMP – stage II		KIP – stage I		HPMP+KIP combined cost (US $)
Category of activity	**Activity**	**Cost (US $)**	**Activity**	**Cost (US $)**	
	training workshops for RAC technicians in servicing energy-efficient equipment; update competency-based certification schemes for technician to include servicing energy-efficient equipment; public awareness campaign; and a survey of consumer behaviour related to purchasing of RAC appliances				
Awareness	Four awareness workshops for the general public on benefits of adopting and using green RAC system; and four targeted awareness workshops to end-users about the need to move away from HCFCs and the introduction of new technologies such as low-GWP HFCs and natural refrigerants	30,000	Create awareness for 100 junior-level female students on the RAC industry and encourage women role models as presenters in all KIP implementation workshops	12,600	42,600
Coordination and monitoring	Conduct project monitoring and follow-up activities	50,000	Conduct project monitoring and follow-up activities	17,000	67,000
Total		**640,000**		**170,000**	**810,000**