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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-sixth Meeting
Montreal, 26-30 May 2025
Item 9(c) of the provisional agenda¹

PROJECT PROPOSAL: LIBERIA

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

Phase-out

- HCFC phase-out management plan (stage II, second tranche) UNEP and UNIDO Blanket approval

¹ UNEP/OzL.Pro/ExCom/96/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Liberia

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNEP (lead), UNIDO	90 th	100% phase-out by 2030

(II) LATEST ARTICLE 7 DATA (Annex C, Group I)	Year: 2024	0.82 ODP tonnes
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2023	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					1.25				1.25

(IV) CONSUMPTION DATA (ODP tonnes)			
2009–2010 baseline:	5.30	Starting point for sustained aggregate reductions:	5.30
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	5.30	Remaining:	0.00

(V) ENDORSED BUSINESS PLAN		2025	2026	2027	Total
UNEP	ODS phase-out (ODP tonnes)	0.80			0.80
	Funding (US \$)	185,000			185,000
UNIDO	ODS phase-out (ODP tonnes)	0.60			0.60
	Funding (US \$)	121,000			121,000

(VI) PROJECT DATA			2022	2023*	2024	2025	2026-2029	2030	Total
Montreal Protocol consumption limits (ODP tonnes)			3.45	3.45	3.45	1.72	1.72	0.00	n/a
Maximum allowable consumption (ODP tonnes)			1.70	1.50	1.50	0.74	0.74	0.00	n/a
Funding agreed in principle (US \$)	UNEP	Project costs	116,000	0	0	164,012	0	58,500	338,512
		Support costs	15,080	0	0	21,322	0	7,605	44,007
	UNIDO	Project costs	135,595	0	0	110,893	0	0	246,488
		Support costs	12,204	0	0	9,980	0	0	22,184
	Germany	Project costs	0	100,000	0	0	0	0	100,000
		Support costs	0	13,000	0	0	0	0	13,000
Funds approved by ExCom (US \$)		Project costs	251,595	100,000	0	0	0	0	351,595
		Support costs	27,284	13,000	0	0	0	0	40,284
Total funds recommended for approval at this meeting (US \$)		Project costs	0	0	0	274,905	0	0	274,905
		Support costs	0	0	0	31,302	0	0	31,302

* Approved funding for additional activities to maintain energy efficiency (decision 89/6)

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Liberia, UNEP as the lead implementing agency has submitted a request for funding for the second tranche of stage II of the HCFC phase-out management plan (HPMP), at a total cost of US \$306,207, consisting of US \$164,012, plus agency support costs of US \$21,322, for UNEP and US \$110,893, plus agency support costs of US \$9,980, for UNIDO.² The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2020 to 2024, and the tranche implementation plan for 2025 to 2030.

Report on HCFC consumption

2. The Government of Liberia reported a consumption of 0.82 ODP tonnes of HCFC-22 in 2024, which is 84.5 per cent below the country's HCFC baseline for compliance. The 2020-2024 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in Liberia (2020-2024 Article 7 data)

HCFC-22	2020	2021	2022	2023	2024	Baseline
Metric tonnes (mt)	28.65	26.14	15.13	22.80	14.96	95.45
ODP tonnes	1.58	1.44	0.83	1.25	0.82	5.30

3. HCFC imports are generally decreasing in Liberia, due to the implementation of HPMP activities and increased imports of alternatives to HCFCs, such as R-600a. Alternatives like HFC-32 and R-290 are making their way into the commerce of Liberia and are mostly used in the servicing sector. The increase in imports of HCFCs in 2023 was due to uncertainty about market needs in the forthcoming compliance years while the decrease in 2024 was due to a reduction in actual demand.

Country programme implementation report

4. The Government of Liberia reported HCFC sector consumption data under the 2023 country programme (CP) implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol. The country programme (CP) implementation report for 2024 has not been submitted yet.

Verification report

5. The verification report confirmed that the Government was implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2020 to 2024 was correct (as shown in table 1 above). The verification confirmed that the country sets clear procedures to ensure that steps are taken for the importation and licensing of HCFCs brought into Liberia, and has a well-coordinated institutional framework laid out to track and monitor the process. The verification concluded that Liberia is in full compliance with the HCFC phase-out schedule, set by the Montreal Protocol and outlined in the Agreement between the country and the Executive Committee.

Status of implementation of stage I of the HCFC phase-out management plan

6. Stage I of the HPMP was completed on 1 December 2022, in line with the extension approved by the Executive Committee in decision 93/36. The project completion report was submitted on 17 October 2023.

² As per the letter of 17 March 2025 from the Environmental Protection Agency of Liberia to the Secretariat.

Progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan

Legal framework

7. Liberia ratified the Kigali Amendment on 12 July 2020. The ODS Regulations (now referred to as “Montreal Protocol Controlled Substances Regulations”) were established in 2004 and revised in August 2023 to include issues related to the Kigali Amendment. The enforceable licensing and quota system for HCFCs now also includes HFCs and is currently in operation to ensure effective monitoring.

Strengthening the enforcement of ODS phase-out policies and regulations

8. Multiple meetings with stakeholders were held regarding the implementation of a ban on the import of HCFC-based equipment. More time was required to study the market situation further; another meeting was proposed for March 2025 to make a final decision on the implementation.

9. The revised Harmonized System (HS) Customs Codes of 2022 was adopted by Liberia in 2023 and utilized by the Liberian Customs authority.

10. Two customs train-the-trainer workshops were held for 30 enforcement officers (including 11 females) on the revised ODS Regulations; the revised 2022 HS Customs Codes; the updated customs training manual; and the monitoring and control of imports of HCFCs and related equipment.

11. The national ozone unit (NOU) held two planning meetings aimed at jump-starting the customs border dialogues with neighbouring countries and subsequently, in November 2024, participated in the NOUs and Customs Twinning Workshop and Border Dialogues for the Economic Community of West African States (ECOWAS) and North Africa region. Outputs and impacts of this workshop included enhanced cooperation regarding trade-related border issues and border dialogues between neighbouring countries, reconciled ODS trade data among the NOUs, licensing authority, and customs, and exchange of information across borders.

Refrigeration servicing sector

Establishment of a mandatory certification scheme and training of RAC technicians

12. A group of qualified/trained technicians (led by an internationally trained female RAC engineer) has been contracted to assist in the establishment of the competency-based certification programme for the safe handling of HCFCs and their alternatives and development of a business model for its sustainability. Discussions concluded in May 2024; the establishment process is ongoing. The stakeholders’ workshop to present the certification programme’s rules and processes for feedback will be conducted following the complete establishment of the programme.

13. The NOU has contracted the service of the National Standards Authority, in collaboration with engineers of the technicians’ union for the revision of the Technicians National Codes of Practice, which is in progress. The curriculum of a government technicians training school has been revised; discussions with stakeholders such as vocational training schools, Ministry of Youth and Sports, Ministry of Education and others, are ongoing for the development and adoption of a harmonized technicians training curriculum to be used nationwide. The revised Codes and curriculum will include the safe handling of low-GWP alternatives.

14. During the reporting period, four training workshops were conducted for 100 technicians (including 31 females) in the installation, servicing and maintenance of equipment based on low-GWP

alternatives. During these workshops trainees were taught to retrofit a unit containing HCFC-22 to work on R-290 which has been used in past trainings.

15. An awareness workshop on the need to transition away from the use of HCFCs and to introduce new technologies based on low- or zero-GWP refrigerants was held for 23 end users and importers of refrigerants and related equipment.

16. One of the two training workshops for the Liberian Refrigeration Union was conducted for 20 members in preparation for the administration of the certification scheme, codes of conduct and the supervision for the use of the training tools and equipment.

Strengthening the existing national technical standards

17. The National Standards Authority has been contracted to revise the RAC technical standards for the servicing sector to include energy efficiency and safety measures relating to the use of low-GWP technologies. Work is ongoing and the stakeholders' workshop to present the revised standards for feedback will be done once work is completed.

Strengthening the centres of excellence

18. The NOU is in contact with UNIDO on the procurement of equipment and tool kits for training of technicians in handling alternative refrigerants and making equipment accessible to RAC technicians on demand.

Project implementation and monitoring

19. Project monitoring is being conducted through a collaborative approach led by a project monitoring unit of the Environmental Protection Agency (EPA), working closely with the NOU, the Liberian Refrigeration Union, and the Liberia Revenue Authority. Of the US \$20,000 approved for this component, US \$20,000 has been disbursed. Monitoring activities focus on training-related implementation at each institution, ensuring alignment with project goals. Annual progress reports are compiled and submitted to the appropriate authorities, documenting the status of activities, challenges encountered, and milestones achieved.

Level of fund disbursement

20. As of March 2025, of the US \$251,595 approved so far (US \$116,000 for UNEP and US \$135,595 for UNIDO), US \$138,502 (55 per cent) had been disbursed (US \$116,000 for UNEP and US \$22,502 for UNIDO). UNIDO in collaboration with the NOU plans to expedite the disbursement of the remaining balance of US \$113,093. Of the US \$100,000 approved for additional activities to maintain energy efficiency at the 93rd meeting, being implemented by the Government of Germany, no disbursement has been made.

Implementation plan for the second tranche of stage II of the HCFC phase-out management plan

21. The following activities will be implemented between July 2025 and June 2030:

- (a) *Strengthening and enforcement of ODS phase-out policies and regulations:* Training of 250 customs and other law enforcement officers on the revised ODS Regulations, the revised HS Customs Codes of 2022, and monitoring and control of imports of HCFCs and related equipment; organize one border dialogue to improve cooperation and enhance enforcement trade regulations; and purchase of five refrigerant identifiers (UNEP) (US \$69,000);

- (b) *Establishment of a mandatory certification scheme and training of RAC technicians:* Conduct eight training workshops for 200 RAC technicians on good refrigeration servicing practices; strengthening the Liberian Refrigeration Union through training 15 refrigeration technicians on administration of the certification scheme and codes of good conduct as well as provision of tool kits to refrigeration training institutions; and conduct a stakeholders' workshop to present the certification programme's rules and processes for feedback (UNEP) (US \$57,000);
- (c) *Strengthening the enforcement of the technical standards for the RAC sector:* Conduct three capacity-building workshops for 60 (20 per workshop) standards officers, environmental inspectors, and other stakeholders on the enforcement of the technical standards; and carry out sensitization activities for the RAC technicians, importers, industries and the general public on the standards for compliance enhancement (UNEP) (US \$18,012);
- (d) *Strengthening the centres of excellence:* Provide equipment to the three centres for handling alternative refrigerants and making equipment accessible to technicians on demand; develop a business model for the operation of one reclamation centre for multiple refrigerants, promote the uptake of low-GWP alternatives in the air-conditioning servicing subsector through the procurement of one R-290-based split unit for training purposes and train-the-trainers programme for low-GWP or zero-GWP-refrigerant-based equipment for five trainers (UNIDO) (US \$110,893, plus balance from the previous tranche); and
- (e) *Project monitoring:* Conduct project monitoring and follow-up activities, including meetings with stakeholders and provide support to the Liberian Refrigeration Union (UNEP) (US \$20,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Progress report on the implementation of the first tranche of stage II of the HPMP

Legal framework

22. The Government of Liberia has already issued HCFC import quotas for 2025 at 13.4 mt (0.74 ODP), which is lower than the Montreal Protocol control targets and in line with the reduction target set in the stage II of the HPMP Agreement for the same year.

23. On the delay in establishing an online HCFC licensing and quota system by 1 January 2023 and banning the import of HCFC-based equipment by 1 January 2024,³ UNEP informed that the online system is in the final stage of development of finalizing the system design, integrating EPA data, and preparing training for relevant users including customs officers, and is expected to be ready by mid-year 2025. The existing system will remain active and enforced until the online system is fully operationalized and tested. On the ban on the import of HCFC-based equipment, the prolonged process is due to concerns raised by industry stakeholders about the unavailability of equipment based on environmentally friendly alternative technologies and at affordable prices. Despite this, the Government has managed, through a prolonged consultative process, to address most of the concerns raised by the stakeholders. A final multi-stakeholder meeting involving all key Government ministries, importers, and the Liberian Refrigeration Union is

³ Noted in decision 90/39 as commitment by the Government of Liberia

planned during the first half of 2025, which is expected to sort out remaining concerns and confirm the official ban and its effective date.

24. On the customs train-the-trainers' session, originally planned but not conducted, and sustainability of customs training within the Customs authority, UNEP explained that the NOU and UNEP agreed to ensure continuity of knowledge, institutional memory and ongoing enforcement capacity through a sustained institutional practice that includes developing an annual training plan considering phase-out needs, conducting regular assessment on training gaps, institutionalizing the training within the Customs authority and facilitating participation in regional training programmes.

25. In relation to how Liberia intends to benefit from the outcomes of the regional border dialogue, UNEP informed that Liberia plans to continue regular border dialogues with customs and NOUs of neighboring countries, pursue joint strategies and practical solutions, such as harmonizing customs procedures and sharing intelligence on ODS trade, coordinating enforcement actions and improving information exchange mechanisms to monitor and prevent unauthorized ODS movement, and encouraging joint training exercises and cross-border capacity building activities to ensure a common understanding of ODS regulations and enforcement tools.

Refrigeration servicing sector

26. On the establishment of a mandatory certification scheme for RAC technicians, UNEP clarified that progress has been made with a full draft of the certification scheme being finalized and key stakeholder consultations to ensure that the final version includes practical testing of the mandatory certification which is planned to be in place by last quarter of 2025 following final stakeholder validation and endorsement processes.

27. In relation to the delay in purchase of training equipment and toolkits resulting in low fund disbursement for the component, UNIDO indicated that the level of funding allocated during the first tranche did not allow initiation of the full procurement process. The procurement of the equipment and toolkits is in progress and the quotation is currently with the Government for clearance. Although an exact delivery date has not been provided, further updates are expected as the procurement process advances. UNIDO also indicated that the development of the business model for one reclamation centre is ongoing with the activities of the second tranche.

Additional activities to maintain energy efficiency in the refrigeration servicing sector

28. On the additional activities to maintain energy efficiency in the refrigeration servicing sector approved at the 93rd meeting,⁴ the Government of Germany explained that due to the recruitment process for technical experts, the implementation of activities has not yet started. However, the contracts will be awarded by May 2025, and implementation will start immediately thereafter.

Implementation plan for the second tranche of stage II of the HCFC phase-out management plan

29. The Secretariat noted that both the progress report and the implementation plan include reference to trainees taught to retrofit units containing HCFC-22 with R-290 which has been used in past trainings. The Secretariat reminded the agencies of the consideration of stage II of the HPMP, in reference to document UNEP/OzL.Pro/ExCom/90/29, which clearly stated that the Government of Liberia was aware of decisions 72/17 and 73/34, and no retrofitting activities were planned to promote the uptake of low-GWP alternatives in the air-conditioning servicing subsector and that retrofitting or drop-ins with hydrocarbons

⁴ Blanket approval decision 93/36

or other toxic and flammable refrigerants is not recommended or encouraged and that all responsibility and liability will lie with the country and this experience is not proposed to continue in stage II.

30. UNEP responded that the training on retrofit simply entails demonstration of the steps involved in the retrofit process with strict emphasis on safety measures which was similar to an old training conducted in earlier projects prior to the respective Executive Committee decisions. UNEP confirmed that there will be no activities or training conducted on the retrofit of HCFC-22-based equipment to R-290 under stage II in ongoing or next tranches.

Gender policy implementation

31. The NOU has encouraged the participation of females in the international ozone day programme; has continuously featured females in its customs and RAC technicians training programmes, encouraged female participation in training of other technicians and has provided opportunities for female technicians to participate in out-of-country studies as well. The Gender Unit at the EPA has completed the process of developing gender policy, which serves as a fundamental framework for promoting gender-responsive initiatives, ensuring that women and other marginalized communities are actively represented and empowered in environmental governance, leadership, and decision-making processes. Under the second tranche workplan, UNEP clarified that the country will be further encouraging training of female RAC technicians as well as female customs officers. UNEP and the Government of Liberia are also considering additional activities under stage II that include establishing a database of women experts, conducting special training/information material, and reporting regularly on female engagement in all HPMP activities.

Sustainability of the HCFC phase-out and assessment of risks

32. Liberia is making every effort to ensure the long-term sustainability of the HPMP activities while phasing out the remaining HCFCs. A module of ODS controls has already been integrated in the regular training for new customs officers, which will be updated regularly as the need arises. The customs training manual has been amended and includes new issues. To sustain the technicians training programme, the NOU in cooperation with the Monrovia Vocational Training Center, has updated the technicians training curriculum to include HCFC alternatives and will continue to be updated as required. It is currently being used for training purposes. To mitigate the risk of certified trainers leaving their jobs for training other trainers, an after-training service agreement with the certified trainers will be signed to ensure that they serve within the RAC sector in the country for an agreed post training period.

33. In the future, a public awareness campaign will be developed to promote the services of the centres of excellence which will in turn generate revenues to contribute to the sustainability of these centres. All these activities will immensely contribute to the sustainable phase-out of HCFCs beyond the completion of the HPMP.

Conclusion

34. The Secretariat notes that Liberia remains in compliance with the Montreal Protocol targets and its Agreement with the Executive Committee for the period 2020-2024 including a verification report for the same period submitted along with the tranche proposal. Progress was made in the implementation of the first tranche of stage II along with an overall level of disbursement of approved funds of 55 per cent. In addition, the recruitment process of technical experts for the additional activities to maintain energy efficiency in the refrigeration servicing sector just completed and implementation is starting soon.

RECOMMENDATION

35. The Fund Secretariat recommends that the Executive Committee note the progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan (HPMP) for Liberia

and further recommends blanket approval of the second tranche of stage II of the HPMP and the corresponding 2025-2030 tranche implementation plan for Liberia at the funding levels shown in the table below.

	Project title	Project funding (US \$)	Support costs (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage II, second tranche)	164,012	21,322	UNEP
(b)	HCFC phase-out management plan (stage II, second tranche)	110,893	9,980	UNIDO