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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 7(b)(ii) of the provisional agenda[1]

REPORTS ON PROJECTS WITH SPECIFIC REPORTING REQUIREMENTS: REPORTS WITH OUTSTANDING ISSUES

An overview

1. Table 1 lists three reports on projects with specific reporting requirements submitted to the 93rd meeting which, after the Secretariat's review, present outstanding issues and require the Executive Committee to consider them individually.

Table 1. Reports on projects with specific reporting requirements with outstanding issues

Country	Project title	Issue	Paragraphs
A. Reports related to HCFC phase-out management plans (HPMPs)			
Libya	HCFC phase-out management plan (stage I – progress report)	Request for cancellation of the conversion project at Al Najam Company	2 - 21
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[1] UNEP/OzL.Pro/ExCom/93/1

A. Reports related to HPMPs

Libya: HCFC phase-out management plan (stage I – progress report) (UNIDO)

Background

2. At their Twenty-Seventh Meeting, the Parties noted that the annual HCFC consumption reported by Libya for 2013 and 2014 exceeded the country's maximum allowable levels for those years, and that Libya was therefore in non-compliance with the consumption control measures for HCFCs under the Protocol. The Parties further noted with appreciation the submission by Libya of a plan of action to ensure its return to compliance with the Protocol's HCFC control measures, under which Libya committed itself to reducing HCFC consumption from 122.40 ODP tonnes in 2014 to no more than 122.30 ODP tonnes in 2015; 118.40 ODP tonnes in 2016 and 2017; 106.50 ODP tonnes in 2018 and 2019; 76.95 ODP tonnes in 2020 and 2021; and the levels allowed under the Montreal Protocol in 2022 and subsequent years.

3. Subsequently, the Executive Committee approved stage I of the HPMP for Libya at its 75th meeting[2] to facilitate its implementation of the plan of action to return to compliance, and to phase out 26.51 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) servicing sector and the foam manufacturing sector to achieve a 10 per cent reduction of HCFC consumption from its baseline by 2018, at a total cost of US $1,908,843 plus agency support costs. The control targets proposed in the plan of action were used as the Montreal Protocol control targets for stage I.

4. Stage I of the HPMP for Libya was approved in two tranches. The Executive Committee approved the second tranche at the 82nd meeting and requested the Government of Libya and UNIDO to submit annual progress reports on the implementation of the work programme associated with the second (final) tranche and a verification report on consumption through the completion of stage I (decision 82/75(c)).

5. On behalf of the Government of Libya, UNIDO as the lead implementing agency has submitted the final progress report on the implementation of the work programme associated with the second and final tranche of stage I of the HPMP in line with decision 82/75(c).

Progress report on the implementation of stage I of the HCFC phase-out management plan

6. The implementation of stage I was delayed due to the political and security situation in the country, and the plan was revised at the 86th meeting[3] to extend the implementation until December 2021 (decisions 84/20(b) and 86/26(b)), as stipulated in the updated Agreement between the Government of Libya and the Executive Committee.[4] The country returned to compliance in 2018, has maintained compliance with the targets set in the plan of action thereafter, and has achieved the control target of 35 per cent reduction from its consumption baseline in 2020 without additional funding.

Report on HCFC consumption and verification

7. The Government of Libya reported a consumption of 73.01 ODP tonnes of HCFCs in 2022, which is below the control target set in the plan of action for that year. The verification report confirms that the Government is 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 2022 was correct. The verification report concluded that the Government of Libya has met its consumption reduction commitments toward the Executive Committee.

[2] Decision 75/50 and documents UNEP/OzL.Pro/ExCom/75/53 and Add.1
[3] Paragraphs 95-109 of document UNEP/OzL.Pro/ExCom/86/21
[4] Annex VIII of document UNEP/OzL.Pro/ExCom/86/100

Manufacturing sector

8. Stage I of the HPMP included an investment project to phase out 216.73 mt (23.84 ODP tonnes) of HCFC-141b at three polyurethane (PU) foam manufacturing enterprises (Alyem Engineering, Al-Najah Company, and Al Najam Company (previously known as Al-Amal Alkhadar Company)).

9. At its 82nd meeting, the Executive Committee approved the cancellation of the conversion at Alyem Engineering, as it was no longer in operation.[5] The funds of US $747,533 associated with the project (including project cost and technical assistance for training) was returned to the 82nd meeting.

10. The conversion of Al-Najah Company was approved to phase out 105.37 mt of HCFC-141b in the manufacturing of continuous panel foam. The contract for supplying equipment and technical assistance was signed in 2017. The equipment was delivered to the beneficiary company in 2018. The installation and commissioning of equipment and training of staff were delayed due to the breakout of the war and the travel ban imposed by Italy. In December 2022, a team of engineers from Cannon was able to travel to Libya to complete the equipment installation, commissioning, and training. The safety certificate was received in November 2023, and the enterprise has been producing insulation panels with cyclopentane foam blowing agent since then.

Request for cancellation of the conversion project at Al Najam Company

11. The project for the conversion of Al Najam Company was approved at the cost of US $140,523 to phase out 15.53 mt of HCFC-141b in the manufacturing of discontinuous panels for building construction. The contract for supplying equipment for the conversion was signed in 2017 with an Italy-based company. The supplier did not deliver the equipment due to the political instability of the country. The contract was subsequently cancelled. When the security situation improved significantly in 2021, the beneficiary company and the national ozone unit (NOU) finalized the technical specifications for the procurement of equipment in 2022 and an open bid was launched in May 2022. A Singapore-based supplier was awarded the contract in June 2022.

12. From June to October 2022, UNIDO, the NOU, the supplier and the beneficiary company had several rounds of discussion on the timeline for project implementation, including the delivery of equipment, the ground preparation work, and the installation and commissioning of equipment. As agreed by all parties involved, the equipment was successfully delivered to Tripoli harbor in December 2022, but could not be delivered to the beneficiary company, as the latter was rendered "non-operational." UNIDO and the NOU held several meetings with the representative of the beneficiary company to discuss the conversion project. The conclusion was that the company could not operate anymore due to a land ownership dispute making the plant site inaccessible. Through a letter, the NOU informed UNIDO that the conversion project at Al Najam had to be cancelled.

13. In this context, UNIDO agreed with the NOU to cancel the project. UNIDO and the NOU have been trying to find a solution to recover the cost of the procured equipment and return it to the Multilateral Fund. Several options were considered, including identifying an alternate eligible company in Libya to use the equipment; selling the equipment back to the supplier or auctioning the equipment on the market; and finding an eligible company in another country to agree to use the equipment. After prolonged consultation, it was found that no eligible company in Libya was identified that could use the equipment. As the equipment is tailored to the company and had already been manufactured, it cannot be sold on the market at its original price, and only 40 per cent of the cost could be recovered from the supplier. UNIDO assessed the possibility of re-exporting the equipment to another beneficiary overseas and has identified a Syria-based enterprise under the ongoing HPMP that could use the equipment. Subsequently, the technical specifications of the equipment were evaluated to assess its suitability, and consent was obtained from the

[5] As per document UNEP/OzL.Pro/ExCom/82/53.

enterprise in the Syrian Arab Republic to use the equipment. The NOU and UNIDO are seeking the Executive Committee's agreement to cancel the project and to re-export the equipment to the Syrian Arab Republic in order to recover the equipment cost.

Refrigeration servicing sector

14. The following activities were conducted in the servicing sector:

(a) Updated Decree Law 228 issued in 2015 to include HFCs; held discussions with relevant ministries and stakeholders on a ban on imports of HCFC-based equipment; reached agreement that the Ministry of Economy and Trade would issue a decree announcing the ban, effective from January 2024;

(b) Conducted two training workshops for six master trainers and 20 customs officers on the phase-out of ozone-depleting substances (ODS), identification of ODS and the use of refrigerant identifiers, labelling and packaging of ODS, harmonized system (HS) codes, and countering illegal import of ODS; printed 200 copies of the training manual for dissemination;

(c) Conducted three training workshops for 38 technicians on ODS phase-out and environmental protection; various cooling processes and components; good servicing practices during the installation, servicing and maintenance of RAC equipment; the classification and labelling of refrigerants; and strategies to increase women's participation in the servicing sector;

(d) Procured tools and equipment for training and refrigerant recovery and reclamation[6] (e.g., model training equipment, refrigerant identifiers, refrigerant recovery machines, tool kits); and delivered the equipment and tools for training in November 2022; and

(e) Awareness-raising activities for ODS phase-out and promoted the participation of women in the activities under the HPMP.

Level of fund disbursement

15. As of October 2023, of the US $1,161,310 approved for stage I of the HPMP,[7] US $1,141,430 (98 per cent) had been disbursed. The balance of US $19,880 (US $8,075 from the servicing sector and US $11,805 from the foam sector) plus the funds to be recovered from selling the equipment, will be returned to the Multilateral Fund once the re-export of the equipment is completed.

Secretariat's comments

Progress report on the implementation of stage I of the HCFC phase-out management plan

Legal framework

16. The Government has issued HCFC import quotas for 2023 at 75.00 ODP tonnes, which is lower than the Montreal Protocol control targets.

[6] Thirty portable refrigerant recovery units were delivered in 2019.

[7] The funding tranche was adjusted after deducting US $747,533 associated with the cancellation of the conversion of one enterprise in the foam sector (Alyem Engineering); these funds have been returned to the Multilateral Fund.

Manufacturing sector

Request for cancellation of the conversion project at Al Najam Company

17. Upon a query regarding the estimated amount of funds that can be recovered from re-exporting the equipment, UNIDO reported that approximately 80 to 90 per cent of the approved funding could be recovered depending on the shipment costs and custom clearance fee when moving the equipment from Libya to the Syrian Arab Republic. The exact amount would be known when the project was completed and would be returned to the Fund.

18. With regard to the timeline for returning the balance, UNIDO informed that the equipment will be delivered to the beneficiary enterprise in the Syrian Arab Republic through Lebanon. Depending on the time for customs clearance in Lebanon and the Syrian Arab Republic, it is estimated to take three to six months. Therefore, the funding balance should be returned to the Fund at the 94th meeting.

19. The Secretariat notes that the cancellation of the conversion project at Al Najam was due to an unforeseen situation in the country, notes the efforts by UNIDO to recover the approved funds to the extent possible, and recommends that the Executive Committee approve the cancellation of the project as requested by the Government.

Completion of stage I of the HCFC phase out management plan

20. UNIDO confirmed that stage I of the HPMP for Libya will be completed by 31 December 2023 as per decision 91/14(b)(ii).

Recommendation

21. The Executive Committee may wish:

(a) To note the final progress report on the implementation of stage I of the HCFC phase-out management plan (HPMP) for Libya, submitted by UNIDO and contained in document UNEP/OzL.Pro/ExCom/93/21;

(b) To cancel the project for the conversion of foam manufacturing at Al Najam planned under stage I of the HPMP; and

(c) To request UNIDO to return the funding balance from stage I of the HPMP to the 94th meeting.

Mauritania: HCFC phase-out management plan (stage I – review status of the HCFC survey report and recommendations on the revised starting point and the revised Agreement) (UNEP)

Background

22. Stage I of the HPMP for Mauritania was approved at the 80th meeting. At the time, the country had submitted HCFC consumption under Article 7 on an annual basis, although official data on imports of HCFC or records from importers or other sources were unavailable. In 2007 and 2008, the Government reported consumption of 1.4 and 5.5 ODP tonnes of HCFCs, respectively, and increased to 20.5 ODP tonnes in 2009-2010, based on which the baseline for compliance was established. Stage I of the HPMP for Mauritania was approved based on an estimated starting point for aggregate reductions in HCFC consumption of 6.60 ODP tonnes (120.00 metric tonnes (mt)) given the lack of reliable HCFC consumption data. The approval was on the understanding, *inter alia*, that a comprehensive survey to determine the actual

level of consumption in the country would be undertaken and independently verified prior to the submission and approval of the second funding tranche; that the starting point could be revised on the basis of the results of the survey, and that that the clause on reductions in funding for failure to comply (Appendix 7-A of the Agreement) would not be applied if the verified level of HCFC consumption was higher than the estimated starting point of 6.60 ODP tonnes (decision 80/57).

23. At the 91st meeting, UNEP requested funding for the second tranche, including in the submission the HCFC survey[8] and an independent verification report[9] to support the request to revise the starting point to 20.50 ODP tonnes (372 mt). The Secretariat and UNEP discussed several matters related to the survey results, including the relatively high HCFC consumption per capita in Mauritania compared to neighbouring countries, the methodology used to determine the aggregated level of consumption in different subsectors, the unusually high leakage rates, and additional details on the consumption in the fisheries sector. Noting that UNEP required more time to provide all required information, the Secretariat agreed with UNEP to finalise the discussion on revising the starting point based on the survey results and to submit an analysis to the 92nd meeting. Accordingly, the Executive Committee noted[10] that the Secretariat would present at the 92nd meeting the review of the report on the HCFC survey for Mauritania, based on further consultations with UNEP on the survey submitted to the 91st meeting.

24. At the 92nd meeting, the Secretariat noted that the additional data provided by UNEP would not allow for a conclusion on the best estimate of HCFC consumption for the country, and agreed with UNEP that the Government of Mauritania, with the support of UNEP, would continue processing socio-economic data to justify the use of HCFCs in the country. Subsequently, the Executive Committee inter alia noted that the Secretariat would present at the 93rd meeting a review of the survey report, including additional information on the population of equipment and the use of HCFCs for each subsector for the year covered by the survey; a recommendation on the revised starting point for aggregate reductions in HCFC consumption, and a revised Agreement for stage I of the HPMP between the Government of Mauritania and the Executive Committee.[11]

HCFC consumption

25. Mauritania is consuming HCFC for servicing refrigeration and air-conditioning (RAC) equipment only and HCFC-22 is the sole HCFC consumed in the country. Table 2 shows the HCFC consumption reported under Article 7 between 2016 and 2022.

Table 2. HCFC consumption in Mauritania (2016-2022 Article 7 data)

HCFC-22	2016	2017	2018	2019	2020	2021	2022	Baseline
Metric tonnes (mt)	330.00	287.26	273.55	252.98	239.90	238.60	237.09	**372.73**
ODP tonnes	18.15	15.80	15.05	13.91	13.19	13.12	13.04	**20.50**

Survey report results

26. UNEP with the assistance of country experts conducted a new survey of HCFC consumption in the RAC sector of Mauritania. An independent expert assisted UNEP in analysing the field data to prepare the 2022 HCFC survey report submitted to the present meeting. The report estimated the country's HCFC demand to serve local needs, highlighting the challenges to cross-checking data due to the customs

[8] The survey collected the 2021 HCFC consumption data, equipment details and age, particularly in large air-conditioning applications, and cross-checked that information with the verified import data.

[9] The verification report for Mauritania showed HCFC consumption in ODP tonnes of 15.80 for 2017; 15.05 for 2018; 13.91 for 2019; 13.19 for 2020; and 13.12 for 2021 that was consistent with the survey results.

[10] Provision contained in Annex XVI of UNEP/OzL.Pro/ExCom/91/72.

[11] Decision 92/14.

electronic system still needing updates for the HCFC tariff codes and the reluctance of certain enterprises to provide information.

27. The survey report estimated the actual HCFC demand to serve local needs in the RAC servicing sector from the amount of installed equipment multiplied by industry indicators for the leakage rate and the average refrigerant charge for different types of RAC equipment. The resulting HCFC demand of 109.77 mt, as shown in table 3, was lower than the consumption reported under Article 7 of 237.09 mt.

Table 3. Estimation of 2022 demand for HCFC-22 in the RAC servicing sector in Mauritania

Application	Equipment units	Average charge (kg)	Banks (mt)	Leakage rate (percentage)	HCFC needs for servicing (mt)
Air-conditioning	124,350	1.20	149.22	25.0	37.31
Commercial refrigeration	44,183	2.50	110.46	25.0	27.61
Fishing vessels (with mechanical refrigeration)	660	45.00	29.70	40.0	11.88
Ice machines	16,636	6.00	99.82	15.0	14.97
Freezing tunnels	1,200	50.00	60.00	30.0	18.00
Total	**187,029**		**449.20**		**109.77**

28. Given the international fishing fleets operating in Mauritania and the information provided by the free zone authorities, the UNEP's expert attributed the difference of 127.32 mt between the Article 7 data and the survey report to the servicing of foreign vessels at the port and selling refrigerants to the vessels for servicing in the high seas. Based on the information provided, the Secretariat notes that there may also be other factors that contribute to the difference between the recorded imports and the actual needs, such as possible incorrect use of customs codes (e.g., using the HCFC-22 code for several refrigerants) and other deficiencies in the application of the licensing and quota system for imports and exports of HCFCs.

29. It was concluded that the HCFC consumption of 109.77 mt from the revised survey report represents the actual local needs of the country in the RAC servicing. However, acknowledging that there might also be a level of uncertainty related to the indicators used for leakages rate and average charge of equipment, the Secretariat and UNEP agreed to add a conservative factor of 15 per cent to the 109.77 mt, reaching an estimated demand of 126.23 mt (6.94 ODP tonnes). This figure is considered the best estimate of HCFC needs for serving the local market in Mauritania.

30. Noting that there is still a significant difference between the HCFC demand in the servicing sector and the HCFC consumption reported under Article 7, in line with decision 63/17[12] the Secretariat recommended UNEP continue assisting the Government of Mauritania in strengthening their licensing and quota system and their systems to record imports and exports of HCFCs to be able to account for the export of HCFCs used by foreign vessels from 2023 and to improve the use of customs codes. The Secretariat also suggests that UNEP provides a report on the progress on this matter to the 95th meeting.

Revision of the starting point and eligible funding

31. In order to revise the starting point for aggregate reductions in HCFC consumption for Mauritania, based on the current estimated HCFC demand of 126.23 mt (6.94 ODP tonnes), the Secretariat projected what would have been the HCFC demand for servicing in the period 2009-2010 (years used as reference for the starting point). Assuming that Mauritania has reduced its consumption by 35 per cent from the

[12] Governments need to confirm that an enforceable national system of licensing and quotas for HCFC imports and, where applicable, production and exports is in place and that the system is capable of ensuring the country's compliance with the Montreal Protocol HCFC phase-out schedule for the duration of the Agreement.

baseline years, it is estimated that HCFC demand during baseline years should be around 194 mt (10.67 ODP tonnes). This figure is consistent with the country's socioeconomic indicators and with the level of HCFC demand in other comparable countries in the region.

32. Consequently, UNEP on behalf of the Government of Mauritania agreed to adjust the starting point for aggregate reductions in HCFC consumption to 10.67 ODP tonnes (194 mt). Based on the cost guidelines for HCFC phase-out (i.e., decision 74/50), the eligible HCFC consumption in Mauritania is US $1,000,000 as its HCFC consumption in the refrigeration servicing sector in baseline years is between 160 and 200 mt.[13]

33. At present, the Executive Committee has approved in principle to Mauritania US $607,500 for the implementation of stage I of the HPMP to reach a 67.5 per cent reduction of the HCFC baseline by 2025. With the revised starting point, Mauritania would be eligible to receive an additional US $392,500 for the total phase-out of HCFCs, rather than US $292,500 as calculated based on the original starting point of 6.60 ODP tonnes (120 mt). A summary of the level of eligible funds for the HPMP of Mauritania is presented in table 4.

Table 4. Level of eligible funds for the HPMP of Mauritania based on the original and revised starting point

Starting point	Eligible funds for total phase-out (US $)	Funds approved for stage I up to 2025 (US $)	Remaining funds to be approved for stage II (US $)
As included in the stage I submission: 20.5 ODP tonnes (372 mt) (non-LVC)	1,785,600	n/a	n/a
As approved at the 80th meeting: 6.60 ODP tonnes (120 mt) (LVC)	900,000	607,500	292,500
As revised based on the survey on HCFC demand for local servicing needs: 10.67 ODP tonnes (194 mt) (LVC)	1,000,000	607,500	392,500

Penalty exemption

34. Decision 80/57 approved the Agreement between the Government of Mauritania and the Executive Committee[14] for the reduction in consumption of HCFCs, on the understanding that the clause on reductions in funding for failure to comply (Appendix 7-A) would not be applied in the event that the verified level of HCFC consumption was higher than the estimated starting point of 6.60 ODP tonnes. With the agreement on the starting point and the maximum allowable consumption for 2024 and 2025, the exemption will not be applicable for the consumption for these two years.

Revision of Agreement

35. The Secretariat has revised the Agreement between the Government of Mauritania and the Executive Committee[15] as presented in annex I, to include the following adjustments:

(a) In paragraph 1, to reflect the sustained level of 6.66 ODP by 1 January 2025;

(b) In Appendix 1-A, to reflect the starting point for aggregate reductions in HCFC consumption of 10.67 ODP tonnes;

[13] Without adding the 15 per cent uncertainty factor, the HCFC consumption in baseline years would be 169 mt, still between 160 mt and 200 mt.
[14] Contained in Annex XV of the UNEP/OzL.Pro/ExCom/80/59
[15] Contained in Annex XV of the UNEP/OzL.Pro/ExCom/80/59

(c) In Appendix 2-A, to include in row 1.2 for 2024 a value of 6.94 ODP tonnes based on the HCFC use in the local market, and for 2025 a value of 6.66 ODP tonnes (67.5 per cent reduction from the HCFC baseline, same as the Montreal Protocol targets);

(d) In Appendix 7-A to add "for 2017-2023" at the end of the last phase to read, "on the understanding that this clause would not be applied in the case that the verified level of HCFC consumption was higher than the estimated starting point of 6.6 ODP tonnes for 2017-2023"; and

(e) To update paragraph 16 to indicate that the revised updated Agreement supersedes the updated Agreement reached at the 88th meeting.

Recommendation

36. The Executive Committee may wish:

(a) To note:

(i) The review status of the HCFC survey report, recommendations on the revised starting point and the revised Agreement in the context of HCFC phase-out management plan for Mauritania contained in document UNEP/OzL.Pro/ExCom/93/21;

(ii) With appreciation, the efforts from the Government of Mauritania with the assistance from UNEP to conduct the survey for determining the HCFC consumption;

(iii) That the starting point for aggregate reduction in HCFC consumption has been established at 10.67 ODP tonnes based on the results of the survey referred to in subparagraph (b)(ii) and taking into account the level of uncertainty related to the indicators used for leakages rate and average charge of equipment;

(iv) That the Fund Secretariat has updated the Agreement between the Government of Mauritania and the Executive Committee, as contained in annex I to the present document, specifically: paragraph 1, Appendices 1-A, 2-A and 7-A resulting from the establishment of the starting point referred to in subparagraph (b)(iii) and paragraph 16, which has been updated to indicate that the revised updated Agreement supersedes that reached at the 88th meeting;

(b) To request UNEP:

(i) Pursuant to decision 63/17, to continue assisting the Government of Mauritania in strengthening their licensing and quota system and their systems to record imports and exports of HCFCs to be able to account for the export of HCFCs used by foreign vessels from 2023 and to improve the use of customs codes; and

(ii) To report to the 95th meeting steps taken to strengthen the HCFC import and export licensing and quota systems.

B. Reports related to HFC projects

Argentina: Control of emissions of HFC-23 generated in the production of HCFC-22 (UNIDO)

Background

37. At its 87th meeting, the Executive Committee approved the project for the control of emissions of HFC-23 generated in the production of HCFC-22 at Frio Industrias Argentina (FIASA) (decision 87/52(b)), followed by, at its 88th meeting, approval of the draft Agreement (decision 88/77(c)) and 2021-2022 annual implementation plan (decisions 87/52(f) and 88/77(b)).

38. The 2021-2022 annual implementation plan inter alia anticipated that any HFC-23 by-product generated after 1 January 2022 and before the completion of the refurbishment of the incinerator would be stored in the on-site cryogenic tank until the maximum capacity of the cryogenic tank had been reached. UNIDO noted that in case of unforeseen delays caused by *force majeure*, such as the COVID-19 pandemic, FIASA, the Government of Argentina, and UNIDO would immediately inform the Executive Committee and propose HFC-23 emission mitigation measures.[16]

39. At the 90th meeting, UNIDO reported delays finalizing a contract for the refurbishment of the incinerator. The cryogenic storage tank could have been used to store HFC-23 by-product while the incinerator refurbishment was ongoing at FIASA; however, due to concern by the Government that the cryogenic tank would reach its maximum capacity before the refurbishment was complete, FIASA had not connected the cryogenic tank, and HFC-23 had been vented to the atmosphere between January 2022 and March or April 2022 when it was reconnected. In March 2022, FIASA had also temporarily stopped producing HCFC-22 due to challenges in purchasing raw materials given supply chain disruptions. It was agreed that once the enterprise restarted production of HCFC-22, it would store the HFC-23 by-product generated in the cryogenic tank until the refurbishment of the incinerator was complete or the maximum capacity of the cryogenic tank was reached, as originally planned.

40. At the 91st meeting, UNIDO reported that FIASA had resumed production of HCFC-22 in June 2022; that its production was intermittent due to delays in the supply of anhydrous hydrogen fluoride caused by supply chain disruptions; and that there had been no further emissions of HFC-23 vented to the atmosphere beyond those reported to the 90th meeting, as the HFC-23 by-product that had been generated was stored in the onsite cryogenic tank. Many but not all the parts needed to refurbish the incinerator had been delivered; accordingly, the incinerator was not yet operational.

41. At the 92nd meeting, UNIDO reported that FIASA continued to store the HFC-23 by-product generated during the production of HCFC-22 in the cryogenic tank and that there had been no further emissions of HFC-23 vented to the atmosphere beyond those reported to the 90th meeting; however, the incinerator was not yet operational as the shipment of parts from SGL Carbon Group of Meitingen, Germany (SGL), the technology provider for the incinerator, was delayed. The incinerator was expected to be operational by the end of June 2023.

42. UNIDO further reported that the enterprise had increased production of HCFC-22 from November to January 2023, which aligns with the Argentine summer and increased demand; produced HCFC-22 in February 2023 at a reduced rate; and temporarily ceased production in March 2023. Given the enterprise's production of 964.93 mt of HCFC-22 since the cryogenic tank was reconnected, the maximum capacity of the storage tank had not been reached: as of March 2023, 29.87 mt of HFC-23 by-product was stored in the cryogenic tank and an estimated 2.08 mt of capacity remained.

[16] Paragraph 5 of document UNEP/OzL.Pro/ExCom/88/77.

Progress report submitted to the 93rd meeting

43. The shipment from SGL was delivered at FIASA on 8 September 2023. Given the delay in delivery of the shipment of parts from SGL, and the need for the enterprise to meet its contractual obligations with clients, FIASA continued producing HCFC-22 prior to the delivery of the shipment. In order to ensure that it did not emit any HFC-23 by-product to the atmosphere, FIASA purchased several rupture discs and operated the incinerator in a campaign mode, starting and stopping the incinerator nine times to ensure that the rupture disc, a key piece of equipment needed to ensure the safe operation of the incinerator, was intact.

44. Between 1 January and 1 October 2023, the enterprise produced 1,169.51 mt of HCFC-22, generated 37.32 mt of HFC-23 by-product,[17] and destroyed 52.37 mt of HFC-23. UNIDO confirmed that in 2023 there had been no further emissions of HFC-23 by-product except for those in line with the destruction and removal efficiency (DRE) of the incinerator (99.99 per cent). UNIDO further reported that the parts from SGL had been installed. The incinerator was temporarily not in operation as the enterprise wished to check the pressure-swing absorption compressor, which should be completed by the end of November 2023. There was sufficient capacity in the cryogenic tank for the enterprise to continue producing HCFC-22 and storing additional HFC-23 by-product, thus continuing to ensure that there were no further emissions of HFC-23.

Secretariat's comments

45. Notwithstanding the challenges faced in the implementation of the project, no further HFC-23 by-product has been emitted to the atmosphere beyond those in line with the DRE of the incinerator. In that regard, the Secretariat noted that the incinerator operates optimally at steady-state; in contrast, frequent start-up and shut-downs may result in a lower DRE. UNIDO confirmed that the enterprise monitored emissions of HFC-23 from the incinerator and that such emissions had been in line with the DRE of the incinerator.

46. In line with decision 92/18(b), the Secretariat sought clarification on the quantity of HFC-23 by-product stored in the cryogenic tank. UNIDO indicated the cryogenic tank was 48.3 per cent full. At the time of finalization of the present document, the Secretariat was not clear on how that value was determined; the Executive Committee may wish to seek UNIDO's clarification on the matter.

47. The parts from SGL have been installed, and the incinerator can be restarted once the pressure-swing absorption compressor has been checked, expected by the end of November. The enterprise remains committed to meeting the targets specified in the Agreement between the Government and the Executive Committee. The second tranche of the project is expected to be submitted to the 94th meeting. That submission will include a progress report on the implementation of the first tranche, a plan of action for the second tranche, and the verification for the years 2022 and 2023.

Recommendation

48. The Executive Committee may wish to note:

(a) The progress report on the implementation of the project for the control of emissions of HFC-23 generated in the production of HCFC-22 at Frio Industrias Argentina, submitted by UNIDO, and contained in document UNEP/OzL.Pro/ExCom/93/21; and

(b) That UNIDO will provide an update to clarify the quantity of HFC-23 by-product stored in the cryogenic tank, in line with decision 92/18(b), during the 93rd meeting.

[17] The average HFC-23 by-product generation rate from January to October 2023 was 3.19 per cent.

Annex I

TEXT TO BE INCLUDED IN THE REVISED UPDATED AGREEMENT BETWEEN THE GOVERNMENT OF MAURITANIA AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE I OF THE HCFC PHASE-OUT MANAGEMENT PLAN

(Relevant changes are in bold font for ease of reference)

1. This Agreement represents the understanding of the Government of Mauritania (the "Country") and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A ("The Substances") to a sustained level of **6.66** ODP tonnes by 1 January 2025 in compliance with Montreal Protocol schedules.

16. At the 88th meeting, UNDP stopped being the Cooperating IA in respect of the Country's activities under this Agreement. This updated Agreement supersedes the Agreement reached between the Government of Mauritania and the Executive Committee at the **88th** meeting of the Executive Committee.

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	**10.67**

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	**Particulars**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	18.45	18.45	18.45	13.33	13.33	13.33	13.33	13.33	6.66
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	6.6	6.6	6.6	5.94	5.94	5.94	5.94	**6.94**	**6.66**

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US $180 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met, on the understanding that this clause would not be applied in the case that the verified level of HCFC consumption was higher than the estimated starting point of 6.60 ODP tonnes **for 2017-2023.**