

**United Nations
Environment
Programme**Distr.
GENERALUNEP/OzL.Pro/ExCom/90/10
31 May 2022

ORIGINAL: ENGLISH

**EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL**Ninetieth Meeting
Montreal, 20-23 June 2022
Item 7(b) of the provisional agenda¹**2022 CONSOLIDATED PROJECT COMPLETION REPORT****I. INTRODUCTION**

1. The issue of outstanding project completion reports (PCRs) has been regularly addressed by the Executive Committee over time. At its 88th meeting, the Committee *inter alia* urged bilateral and implementing agencies (IAs) to submit to the 90th meeting the outstanding PCRs for multi-year agreements (MYAs) and individual projects, or to provide reasons for failing to submit such reports; and also urged the lead and cooperating IAs to coordinate their work closely in finalizing their portion of PCRs to allow the lead IA to submit the completed PCRs on schedule (decision 88/31(b) and (c)).

2. The Senior Monitoring and Evaluation Officer (SMEO) acknowledges the efforts on the part of bilateral agencies and IAs, which have helped reduce the PCR backlog. The SMEO also recognizes that results on PCR submissions can be improved both quantitatively in terms of numbers of timely submissions, but also qualitatively in terms of the reported information and its usefulness in identifying causes for delay and lessons learned.

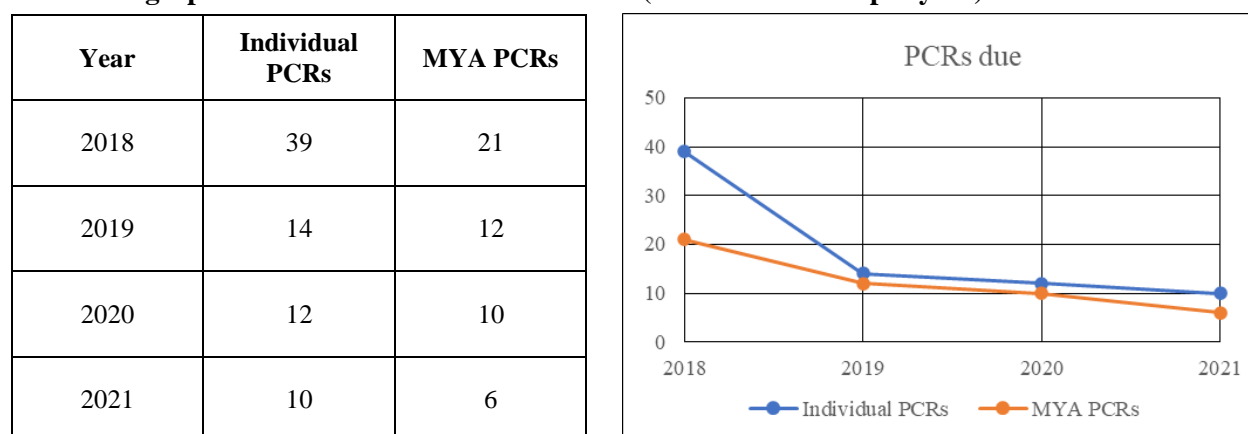
3. At its 88th meeting, the Executive Committee considered the report on the audit of the Multilateral Fund² by the Office of Internal Oversight Services (OIOS). One of the recommendations of the audit relates to the need to finalize PCRs in a timely manner.³ The issue was further addressed during the Inter-Agency Coordination Meeting (IACM) held virtually on 31 March and 1 April 2022. In a dedicated session led by the SMEO, she presented the latest statistics on trends in the submission of PCRs (Table and graph 1), which provided the opportunity to exchange views to further improve existing processes. The trends from 2018 to 2021 reveal positive progress in the submission of PCRs.

¹ Document UNEP/OzL.Pro/ExCom/90/1.

² Document UNEP/OzL.Pro/ExCom/88/2/Add.1.

³ As reported in document UNEP/OzL.Pro/ExCom/90/2, this recommendation has since then been closed by OIOS, considering it as implemented.

Table and graph 1. Trends in submission of PCRs (number of PCRs per year)



4. At the 88th meeting, the Executive Committee also noted that UNDP, UNIDO and the World Bank were updating the PCRs for the CFC production, polyurethane (PU) foam, process agent II, halon, refrigeration servicing and solvent sector plans for China, contained in document UNEP/OzL.Pro/ExCom/88/18/Add.1 (decision 88/30). In response to the decision, the SMEO followed up with the IAs urging them to update the information on the PCRs. As a result, the World Bank and UNDP have updated the above-mentioned PCRs for their respective projects; however, UNIDO has not completed its part. The SMEO will continue to follow up on the matter with UNIDO and report to the Executive Committee at its 91st meeting.

II. SUMMARY OF INFORMATION FROM MYA PCRS RECEIVED

5. Pursuant to decision 88/31(b) and (c), the list containing outstanding PCRs and those due for 2022, as per the 2020 progress reports, was sent to bilateral agencies and IAs in January 2022. The rate of response and submission has been highly satisfactory. While some PCRs due in 2022 are still outstanding, the list covers the entire year, and therefore IAs still have time to reach their performance targets regarding PCR submission.

Overview of information from MYA PCRs

6. As per the 2020 progress report, 212 MYAs have been completed. Bilateral and implementing agencies submitted 206 PCRs prior to the 90th meeting, with an outstanding balance of six, as shown in Table 2. The list of the seven PCRs submitted after the 88th meeting, including five PCRs for projects completed after 31 December 2020, is contained in Annex I to the present report.

Table 2. Overview of MYA PCRs

Agency	Completed	Received prior to the 88 th meeting	Received after the 88 th meeting	Outstanding
Canada	3	3	0	0
France	6	6	0	0
Germany	10	9	0	1
Japan	1	1	0	0
UNDP	46	45	0*	1
UNEP	62	62	0	0
UNIDO	58	57	1**	0
World Bank	26	21	1	4
Total	212	204	2	6

* In addition, UNDP submitted two PCRs for projects completed after 31 December 2020.

** In addition, UNIDO submitted three PCRs for projects completed after 31 December 2020.

7. An analysis of the aggregated funds disbursed, ODS tonnes phased out and delays in the completion of the seven MYA PCRs submitted since the 88th meeting is summarized in Table 3.

Table 3. Overview of the budget, ODS phased out and delays of MYA PCRs submitted after the 88th meeting

Agency	MYA funds (US \$)		Phase-out (ODP tonnes)		Average of delays (in months)*
	Approved	Disbursed	Approved	Actual	
World Bank	1,098,284	1,098,284	85.2	85.2	-5.03
UNDP	2,144,063	1,801,331	21.0	20.8	0.00
UNIDO	20,863,884	20,109,849	268.8	266.1	12.67
Total	24,106,231	23,009,464	375.0	372.1	6.52

* The total average is based on the total of seven MYA PCRs received as presented in Annex I.

Reasons for delays

8. The MYA PCRs received mostly concerned HCFC phase-out management plan (HPMP) projects; five for stage I and one for stage II.⁴ A variety of causes for delays were reported, relating to project design, administrative delays, supplier/enterprise delays, delays in disbursement of funding, and COVID-related delays. Noting that only one PCR relates to Methyl Bromide (MB), the information below focuses mostly on HPMPs, and briefly on MB.

HPMPs

External factors

9. The COVID-19 pandemic was reported in several cases as having impacted many different aspects of project implementation, from capacity-building (no in-person training) to issues of slow-down in the supply chain, causing worldwide shortages in chemical systems.

10. Institutional factors such as changes in governments also delayed the final signature and launch of projects in some beneficiary countries, delaying the starting date by about one year. Governmental changes led to changes of incumbents in the relevant ministries and therefore the process of signature was delayed.

Administrative issues – agreements and funding disbursement

11. Delays related to administrative issues were reported, covering *inter alia* the following: a) slow pace in the process of signing the grant agreement; b) procurement issues; and c) transition between tranche disbursements (insufficient spending on first tranche preventing the disbursement of the next one). In other projects, it was mentioned that the process of drafting the documents and the agreement between all of the parties took longer than planned.

12. One agency reported that cost-effectiveness in implementation had led to lower expenditures and incomplete disbursement of the first tranche, which had not reached the necessary threshold to allow for approval and disbursement of the next tranche. The reporting agency suggested introducing the possibility of continued tranche implementation in future, in order to use available balances for agreed activities.

13. The introduction of new administrative tools (SAP)⁵ was reported as the reason for a slow-down in the capacity of one IA, which resulted in delays in the bidding processes for the supply of equipment and tools for training centres. It is worth noting that though the PCR has been submitted now, this information relates to 2013 and therefore this particular issue might have been resolved long ago.

⁴ One MYA project on MB is covered separately.

⁵ Systems Applications and Products.

Suppliers and technology

14. Some delays were attributed to technical challenges related to laboratory testing of the new products, however the joint efforts of the agencies and the country made it possible to overcome difficulties and recover from the initial delays. Another project was delayed due to the lack of available suppliers for the required equipment, as the market for 60Hz HC-based RAC equipment had not yet been fully established in the country. This required the identification of foreign suppliers.

15. Other delays were attributed to a worldwide shortage of chemical systems not available at the time when enterprises were ready to start the testing processes and trials. Difficulties were also experienced due to lengthy negotiations between the supplier and the beneficiary regarding the lay-out of equipment, as the beneficiary was considering purchasing non-eligible parts. The IA mediated between the two parties to reach a final agreement that facilitated project implementation. Another project identified the involvement of international suppliers as a risk factor for delays at the national level, noting the lack of leverage to push for delivery.

MB

16. Reasons for delays were reported in relation to enterprises and suppliers. The fumigation enterprises were reluctant to participate in the sub-grant agreement. The delay in obtaining the engagement of the enterprises created further delays in contracting a consultant to assess integrated approaches as a replacement for MB. The project was initiated later than planned but the grant was subsequently extended for 6 months, allowing for the project to be successfully completed and meet its targets.

17. This project also reported delays in the disbursement of tranches, due to the gap between the finalization of the first tranche and the release of the next tranche disbursement. There is no more information available regarding this technology, as there was only one PCR submission on a MB MYA.

Lessons learned

HPMPs

Project design and stakeholder ownership

18. Government and industry were deeply involved in the formulation and definition of the scope of the phase-out projects. The day-to-day involvement of industry associations and ODS-consuming enterprises helped design appropriate programmes, actions and policy instruments, which created a conducive environment and stakeholders' sense of ownership in the implementation of phase-out activities and conversion projects. In view of the significant HCFC-22 consumption in the servicing sector, it is critical to maintain this relationship through ongoing training programmes for service technicians and by updating technicians' knowledge with respect to upcoming new alternatives to ODS and the adoption of climate-friendly substances and servicing technologies.

19. In relation to project design and preparation, it was reported that in one case the design of the project had allowed for retroactive payments of expenses prior to the counter-signing of the Grant Agreement and that this flexibility had contributed to successful project execution.

Capacity-building

20. Important elements for successful implementation of the conversion programme in the manufacture of rigid PU foam insulation products at three enterprises were technical assistance, and services consisting of: providing techno-commercial analysis and assistance in the selection of the most appropriate alternative technology taking into consideration quality standards and product performance parameters; drafting

specifications for new equipment, and providing engineering services to replace existing machinery when justified by the selected technology; preparing terms of reference (TOR) for the sub-contracting of technology and services, and also selecting suppliers of the technology, equipment and engineering services based on international competitive bidding; and installing and commissioning equipment and conducting trial tests according to an agreed programme, and training operational and managerial personnel.

21. Innovative approaches in project execution, such as technology development, and enhancing local capacity through extensive technical assistance and training make it possible to achieve a cost-effective and sustainable introduction of environmentally friendly technologies in domestic enterprises while enhancing their long-term sustainability.

22. The use of Project Coordination Unit (PCU) staff to conduct biannual monitoring visits at the industrial plants involved in the project strengthens the PCU's capacity and the sustainability of the project, while reducing the cost of monitoring and decreasing PCU's dependency on external consultants.

23. The participation of national ozone unit (NOU) staff in refrigeration fairs and industry events facilitates direct contact with technicians and experts in the refrigeration industry, which in turn helps to identify their technical and training needs as well as the type of information required. Building capacity is an important component in assuring the national long-term sustainability of the training activities.

24. Training of technicians should occur at an early stage in the introduction of a new technology, to increase the likelihood of its uptake and use, and to help ensure that new appliances will be serviced correctly. This has been especially successful in the room air-conditioning sector, where the entire sector was converted at the same time to HFC-410A refrigerant.

Suppliers and technology

25. A key factor in the success and sustainability of a project's achievements was the involvement of industry experts in the definition of proper specifications and selection criteria for project equipment, taking into account local availability and service support. This helped avoid delays in technology conversion and increased the likelihood of the project's sustainable impact in the country.

26. It was reported that technology-transfer investment projects should ensure minimum impact on industrial operations, as they generate many jobs directly and indirectly. One project supported the phase-out of HCFC-141b as a foam blowing agent at three domestic refrigerator enterprises, converting to cyclopentane for insulation foam blowing. This provided an opportunity to upgrade facilities and rationalize the manufacturing process with minimum impact on industrial operations. The outcome was the phase-out of 308 mt of HCFC-141b with an improvement in environmental impact, occupational safety and quality assurance of products, and with an increase in labour productivity. This is an example of the positive side-effects that the implementation of projects to achieve Montreal Protocol goals can have on environmental, economic and social stewardship.

27. One project reported a cumbersome procurement process to use equipment from the local market, and facing complicated administrative procedures for VAT exemptions, causing initial delays in project implementation due to late equipment delivery. However, in the end the project resulted in local equipment being provided at a more competitive price than internationally sourced equipment, and it enabled the enterprises to benefit from a complete set of equipment and tools for the design and market distribution of new products based on the selected alternative technologies to HCFC-22.

Policy and regulatory framework

28. Legislation and policy implementation is essential for the phase-out of HCFC consumption. The national preparation and adoption of a comprehensive legislative framework, as well as a number of

concrete legislative measures to reduce HCFC consumption in line with the accelerated Montreal Protocol schedule was instrumental for achieving the phase-out. Beneficiary countries put in place an effective licensing and quota system for HCFC imports, and a ban on imports of refrigeration and air-conditioning equipment containing HCFCs. The licensing and quota system as a regulatory measure to control and eliminate ODS remains the most effective tool for ensuring compliance with the Montreal Protocol. The support provided to train customs officers under stage I of the HPMP through a project to track imports of HCFCs and HCFC-based substances was key to the smooth execution of the quota system.

MB

Capacity-building

29. The project helped improve awareness of issues, enhance networking among stakeholders and increase the effectiveness of cooperation between the PMU, the IAs and stakeholders. The Plant Protection department gained better understanding of the issues at stake, thus strengthening the positive impact of its role in the area of MB use in the country. The project raised the awareness of fumigation service enterprises, storage facility owners, and farmers, who searched for MB alternatives, which they proposed and tested in the fumigation of soil and stored goods during project implementation. This has helped ensure the sustainability of the project.

Alternative technologies

30. The use of phosphine, alongside integrated pest management (IPM) methods, has supported the phase-out of MB for non-quarantine-and-pre-shipment (QPS) applications in the country. Phosphine nevertheless remains a toxic chemical, the application of which is carefully monitored. Experience gained with use of reduced a dosage of phosphine to limit, to the extent possible, reliance on this toxic product for non-QPS purposes is now being assessed with regard to QPS treatments. In an effort to reduce the amounts of MB required for QPS treatments, which are not controlled under the Protocol, trials were conducted wherein products/goods were first treated with phosphine, to determine whether reduced dosages of MB could then be applied at the time of QPS treatments. This line of assessment contributed positively to identifying workable solutions to reducing imports of MB for QPS applications, and to preserving the ozone layer.

Policy and regulatory framework

31. The Government increased its engagement to protect the global environment by actively signing international commitments such as the Montreal Protocol and fulfilling its obligations. Policies and regulations to control ODS including MB that were promulgated during project implementation are among the key contributions to the project's success.

III. SUMMARY OF INFORMATION FROM INDIVIDUAL PCRS RECEIVED

32. Of the total 1,863 investment projects that have been completed, bilateral agencies and IAs have submitted 1,859 PCRs, with a balance of four outstanding PCRs, as shown in Table 4.

Table 4. PCRs submitted for investment projects

Agency	Completed	Received prior to the 88 th meeting	Received after the 88 th meeting	Outstanding
Canada	2	0	2	0
France	13	13	0	0
Germany	20	19	0	1
Italy	11	11	0	0
Japan	6	6	0	0
Spain	1	1	0	0

Agency	Completed	Received prior to the 88 th meeting	Received after the 88 th meeting	Outstanding
United Kingdom of Great Britain and Northern Ireland	1	1	0	0
United States of America	2	2	0	0
UNDP	898	896	2*	0
UNIDO	452	449	1	2
World Bank	457	455	1	1
Total	1,863	1,853	6	4

* In addition, UNDP submitted one PCR for an ongoing investment project.

Overview of information from individual PCRs

33. Of the 1,263 non-investment projects⁶ that have been completed, bilateral agencies and IAs have submitted 1,259 PCRs, with a balance of four outstanding PCRs, as shown in Table 5.

Table 5. PCRs submitted for non-investment projects

Agency	Completed	Received prior to the 88 th meeting	Received after the 88 th meeting	Outstanding
Canada	57	57	0	0
France	34	34	0	0
Germany	62	61	0	1
Japan	17	17	0	0
Portugal	1	0	1	0
Russian Federation	1	1	0	0
UNDP	299	295	3	1
UNEP	498	483	15	0
UNIDO	159	154	4	1
World Bank	44	41	2	1
Others*	91	91	0	0
Total	1,263	1,234	25	4

* Including PCRs completed and received from the following countries: Australia (25), Austria (1), Czech Republic (2), Denmark (1), Finland (5), Israel (2), Italy (1), Poland (1), South Africa (1), Spain (4), Sweden (5), Switzerland (3), and the United States of America (40).

34. The list of non-investment projects received after the 88th meeting is contained in Annex II to the present document. The aggregated results relevant to disbursement, actual phase-out and delays are shown in Table 6.

Table 6. Overview of the budget, ODS phased out and delays of individual projects submitted after the 88th meeting

Agency	Number of projects	Funds (US \$)		Phase-out (ODP tonnes)		Average duration/delays (months)*	
		Approved	Disbursed	Approved	Actual	Duration	Delays
Canada	2	664,988	664,988	45.5	45.5	29.47	4.10
Portugal	1	47,743	47,743	0.0	0.0	68.93	43.60
World Bank	3	2,931,732	2,931,732	157.4	178.1	87.94	23.01
UNDP	6	3,529,837	3,527,327	406.7	408.6	23.18	-3.54
UNEP	15	795,000	744,969	0.0	0.0	25.17	1.49
UNIDO	5	1,173,858	1,157,048	112.5	112.5	22.13	-2.43
Total	32	9,143,158	9,073,807	722.1	744.7	31.84	3.43

*The total average is based on the total of 32 individual PCRs received.

⁶ Excluding project preparation, country programmes, multi-year projects, networking, clearing-house activities, and institutional strengthening projects.

Reasons for delays and actions taken

External factors

35. The reported reasons for delays indicate a predominance of external factors compared to other possible causes. Among these, adapting to the consequences of the COVID-19 pandemic is a recurring factor, which led to the cancellation of workshops, and the postponement or cancellation of field verification visits due, *inter alia*, to travel restrictions. When possible, some workshops were rescheduled or held virtually. NOUs adapted to the new conditions by preparing summaries that could be shared and then discussed virtually with experts and other NOUs through international webinars.

36. The pandemic also affected the supply chain of key products required to achieve project performance targets. In such cases, the IAs negotiated project extensions to facilitate completion.

37. On a number of occasions, external factors included the state of the carbon market, which affected project expectations in the short term. One project on resource mobilization for HCFC phase-out and co-benefits adopted a longer-term view for analysis in the midst of an ill-defined and changing landscape of climate finance, and developed strategies that would remain relevant despite any conjunctural weakness of carbon markets.

National factors

38. Different reasons for delays have been reported, including: delays in signature between the Government and other national stakeholders; financial volatility and debt crisis affecting the effectiveness of the financial incentive in project management; c) late submission of the grant request by the Government; delays in completing payments of a tranche resulting in delays for the final tranche; and delays in the hiring of a consultant for the verification report.

39. In all cases where the IA could assist in resolving the problem, actions were taken that facilitated overcoming the bottleneck and mitigating, to some extent, the impact of these delays on overall project completion.

Project design

40. A global project reported delays resulting from over-optimistic assumptions underlying project design, which had not fully grasped the high risks related to market and co-financing issues. This was related to the carbon market and Clean Development Mechanism (CDM). As a result, only one of the components of the originally Global project was successfully restructured. The second component and the remaining Global Environment Facility (GEF) grant was transferred to another GEF operation.

Suppliers and contractors

41. Delays have occurred in cases where the originally planned contractors, which were considered to be the optimal ones from the technological perspective, could not be hired for reasons beyond the project's control, such as legal aspects, contract conditions that could not be agreed to by the contractor and the IA, etc. While this delayed the launch of a project, IAs found alternative suppliers that were able to conduct the expected work with due quality and performance.

42. Another project reported that the initial bid invitation for MAC recycling did not generate any offers upon the first try. This was resolved by the NOU identifying potential suppliers and sending the offer directly to them so that they would receive the information and be able to bid if interested.

Lessons learned⁷

43. Lessons learned shared through the PCR reports often consist of results rather than lessons to be replicated or challenges to be avoided. The reports often describe the factual results of the projects rather than what can be learned from their implementation. The issues identified below by the SMEO aim at summarizing the essence of what is systematically reported in most projects.

Verification reports

44. The number of verification reports covered two thirds of the submissions of individual PCRs for the 90th meeting.⁸ The impact of COVID-19 has resulted in delays in undertaking and finalizing the verification reports. As they would usually entail a mission in situ, uncertainty regarding the evolution of the pandemic and travel-related restrictions affected the planning of verifications, most of which were ultimately completed virtually.

45. The agencies unanimously highlighted that the selection of the verifiers was undertaken with due diligence and in a way that ensured that assessments were unbiased with guaranteed absence of conflict of interest. They also acknowledged all of the efforts made to ensure effective data collection for the preparation of the verification reports under the exceptional constraints faced by verifiers to ensure the comprehensiveness of information despite being unable to visit the countries.

Guidelines from the Multilateral Fund (MLF)

46. MLF guidelines are reported to be useful in preparing the TOR for contracts with enterprises or consultants to undertake verification. The role of project verification is very relevant as it involves all stakeholders, e.g., customs, users of controlled substances and data providers. Furthermore, the verification reports can yield useful recommendations for improvements in the operation of the HCFC import licensing systems.

Customs and licensing

47. Customs authorities and officers play a key role in preventing the illegal trade of HCFCs. Licensing and quota systems established by the countries allow for effective control over imports. The latest improvements in Harmonized System codes also allow for penalties and sanctions to be included in the system in the event of regulatory infringement. It is important to ensure, through training and capacity-building, that enforcement officers are informed about the latest ODS identifiers.

Institutional and legal framework

48. Verification reports confirm that the countries have established the legal and institutional framework to implement the Montreal Protocol. One project is recommending to establish at least one annual meeting between the relevant institutional stakeholders, regulators, customs and refrigerant importers to review the licences and imports made. Other projects also recall the importance of constantly upgrading the legislative framework and strengthening law-enforcement capabilities. Cooperation between ministries and environmental agencies is instrumental to building an effective framework for compliance with the Montreal Protocol.

49. The COVID-19 pandemic has led to improved methodologies to facilitate the preparation of verification reports in spite of travel restrictions. Lessons learned in this area can be replicated in the future, undertaking travel in the most cost-effective manner and only when it adds to the results to be obtained. It

⁷ Lessons learned from the individual PCRs can be found in the PCR lessons learned database: <http://www.multilateralfund.org/pcrindividual/search.aspx>.

⁸ 21 verifications out of 32 individual PCRs.

has now been demonstrated that remote tools supplemented by good coordination among stakeholders can be a second-best option in times of uncertainty, as well as a way of optimizing the use of resources.

Role of NOUs

50. As reported consistently in the verification reports, the NOUs play a critical role in ensuring the success of projects, facilitating communication, raising awareness, reaching out to relevant stakeholders, resolving issues with IAs and liaising with the different actors involved in achieving Montreal Protocol goals. They are essential in constantly reviewing and updating the information on ODS identifiers and organizing training for key players to ensure enforcement of the regulatory framework.

Recommendations in the verification reports

51. The SMEO would like to note that the vast majority of PCRs dealing with verification projects refer to relevant recommendations having been identified by the verifier, which will be useful for future consideration in other projects. However, these recommendations are not included, not even as a summary, in the PCRs. In the view of the SMEO, as part of improving the use of existing information, the reporting format template for PCRs could be updated to include a specific section where the essence of the recommendations made in the verification report could be summarized, for use by the Evaluation Office in reporting on lessons learned.

Investment projects

52. The lessons learned from investment projects highlighted, *inter alia*, the following dimensions as being critical for the effective, smooth and successful implementation of projects:

- (a) *Planning as part of project design*, taking into consideration all future elements required during the project, including strong risk-assessment;
- (b) *Commitment on the part of the enterprises* engaged in the technological conversion, to ensure that the technological choice to be implemented is in line with the enterprise's expectations;
- (c) *Clear communication* between the project parties to ensure a common understanding and avoid potential delays in implementation;
- (d) *Clarity* on disbursement criteria and project progress milestones; and
- (e) *Awareness-raising* to overcome challenges in the adoption of new technology, as all stakeholders – i.e., producers, service providers, technicians and customers – must upgrade their technical knowledge and understanding of the new technology.

53. Coordination and awareness-raising are two components that have been emphasized in the lessons learned as elements that should be systematically addressed and incorporated into the project design phase. The component of awareness-raising can be included in project design or introduced through complementary projects to consolidate the adoption of the new technology. Emphasis was also placed on coordination among stakeholders as an essential aspect to ensure the success of the projects, particularly with a very short time frame of two years for project completion. The investment projects provided important information on the incremental capital and operating costs that enterprises in the commercial refrigeration sector will face with the challenge of eliminating HFCs and adopting technologies with low environmental impact and high energy efficiency.

54. The importance of connecting national stakeholders with international forums was also highlighted, as it allows for knowledge sharing, cooperation and the sharing of potential solutions among countries facing similar challenges. Simple project design coupled with strong involvement and leadership, as well

as longevity in the position of head of the NOU were also considered to be factors of success to ensure that the expected results of the projects were achieved.

Demonstration projects

55. Lessons were drawn from the experience of a complex demonstration project, with global coverage, involving three different funding institutions. The project achieved 80% of the chiller replacement target at 32.3% cost for the MLF. Important lessons refer to the need for a robust ex-ante risk-assessment when building complex projects, and to take account of the impact of involving different institutions with diverse funding and reporting requirements. One consequence was that projects became more vulnerable in terms of delays or the withdrawal of some of the beneficiaries. It was reported that project design offering a simple subsidy payment upon completion had better results than projects with mixed complex financing arrangements. In the end, the 4 projects covered under this global project used a straight subsidy model to achieve the desired results within the allotted time frame.

56. Issues concerning project sustainability were called into question by the absence of an option to dispose of and/or destroy recovered ODS. No clear path for recycling and reuse or destruction of CFCs recovered from old chillers was integrated into original project design, leaving governments for the most part with the responsibility of determining how to manage the fate of obsolete ODS, in particular CFCs. While the projects helped to eliminate future CFC servicing demand, they should have more proactively incorporated a design element to ensure that the recovered CFC would be properly disposed of and/or destroyed in the longer term. In all cases, the refrigerant was properly recovered and stored but the longer-term burden of destroying the unwanted ODS remains for the respective governments, given the current challenges under the Multilateral Fund of financing disposal and destruction of controlled substances.

Technical assistance project with a cross-sectoral approach

57. This technical assistance project yields interesting lessons for addressing cross-sectoral issues while aiming at achieving the goals of the Montreal Protocol. A cross-sectoral team was established to bring together Montreal Protocol and climate finance experts, to bridge the communication gap between their respective organizational units. This project laid the theoretical foundation for additional donor-funded work and guidance for the operationalization of synergies between HCFC phase-out, energy efficiency, and climate co-benefits in the IA's projects. The experience may be of use for the coming challenges related to implementation of Kigali HFC Implementation Plans.

IV. GENDER MAINSTREAMING (ALL PCRS)

58. The SMEO notes with concern that, with few exceptions, neither the MYA PCRs nor the individual PCRs have provided substantive information related to gender mainstreaming. While it is the case that the gender mainstreaming policy of the MLF was approved more recently (84th meeting) than the dates on which these projects were approved and implemented, gender mainstreaming should receive increased attention in the future preparation of PCR reports.

59. Only a few projects reported explicitly about efforts to include gender in either project design or implementation. One project reported on efforts made on the part of the NOU to design projects in a way that would take into consideration both the national gender policy and the MLF's policy on gender mainstreaming.

60. Another project, which was approved at the 82nd meeting of the Executive Committee (November 2018) and the implementation of which started before the adoption of the MLF's gender policy, has made targeted efforts to promote gender-balance initiatives, in line with decision 84/92. These initiatives have promoted broad participation by women and men in all project activities, including

management and monitoring practices, with the enterprise appointing a female worker as one of the main managers in charge of project liaison and monitoring. The engagement of women in various activities such as planning design, decision making, training, monitoring and evaluation, and promotion were encouraged

61. The SMEO is considering working on an update of the PCR reporting format which would include a section on gender so as to facilitate reporting on the subject.

V. OUTSTANDING MYA PCRS AND INDIVIDUAL PCRS

62. The SMEO would like to thank one IA for the effort made in tracing back an old project from 2011, which was implemented on behalf of a bilateral agency, and which has now been successfully eliminated from the list of outstanding PCRs. The agency was able to consolidate the PCR and to report on the successful activities and results of this project, which supported awareness-raising, communication and capacity-building activities in a number of Lusophone countries.

63. It is also worth recalling the dedicated session on PCR-related issues held during the IACM in March 2022, which provided the opportunity to exchange informally on ways of enhancing the usefulness of PCRs without adding to the reporting burden, and perhaps even reducing it. The SMEO will continue working closely with the agencies in this regard, with the guidance of the Executive Committee should it have any views on possible improvements and expectations regarding this monitoring and evaluation tool.

64. The SMEO stresses, once again, the importance of submitting all outstanding PCRs, in line with decision 88/31, and in particular those for stage I of the HPMPs, which are mandatory for the approval of stage II.⁹ Annexes III to V to the present document contain the lists of outstanding PCRs.

VI. RECOMMENDATION

65. The Executive Committee may wish:

- (a) To note the 2022 consolidated project completion report (PCR) contained in document UNEP/OzL.Pro/ExCom/90/10;
- (b) To request bilateral and implementing agencies to submit, to the 91st meeting, outstanding PCRs for multi-year agreements (MYAs) and individual projects, or to provide reasons for failing to do so;
- (c) To request lead and cooperating agencies to coordinate their work closely in finalizing their respective portions of PCRs to facilitate the timely submission of the reports by the lead implementing agency;
- (d) To request bilateral and implementing agencies, when filling in the data for PCR submissions, to ensure that relevant and useful information is reported under lessons learned and reasons for delays, beyond anecdotal evidence, aimed at actionable recommendations for improvement in future project implementation or the replicability of good practices;
- (e) To invite all those involved in the preparation and implementation of MYAs and individual projects, in particular the Secretariat and the bilateral and implementing agencies, to take into consideration the lessons learned from PCRs, where applicable;

⁹ Decision 81/29.

- (f) To request UNIDO to complete its update of the PCR for the refrigeration servicing sector in China in line with decision 88/30 and to note that the Senior Monitoring and Evaluation Officer will report on the matter at the 91st meeting;
- (g) To provide guidance to and invite the Senior Monitoring and Evaluation Officer, in line with decision 89/1(b):
 - (i) To explore ways and means to collect better data, improve database accessibility and improve access to online information from MYA PCRs and individual PCRs, in the context of the revamped information strategy to be reviewed by the Secretariat, and to include this issue in the draft monitoring and evaluation work programme for 2023; and
 - (ii) To include in the draft monitoring and evaluation work programme for 2023 activities for the preparation of updated PCR reporting formats, which would include, *inter alia*, specific sections for gender mainstreaming, issues related to Kigali HFC Implementation Plans and a summary of key recommendations from verification reports.

Annex I

**MULTI-YEAR AGREEMENT (MYA) PROJECT COMPLETION REPORTS RECEIVED
AFTER THE 88TH MEETING**

Country	MYA sector	Lead agency	Cooperating agencies
Argentina	HCFC phase-out plan (stage I)	UNIDO	IBRD/Italy
Egypt	HCFC phase-out plan (stage I)	UNIDO	UNDP
Morocco	HCFC phase-out plan (stage I)	UNIDO	
Serbia	HCFC phase-out plan (stage I)	UNIDO	UNEP
Kyrgyzstan	HCFC phase-out plan (stage II)	UNDP	UNEP
Trinidad and Tobago	HCFC phase-out plan (stage I)	UNDP	
Viet Nam	Methyl bromide	World Bank	

Annex II

INDIVIDUAL PROJECT COMPLETION REPORTS RECEIVED AFTER THE 88TH MEETING

Code	Agency	Project Title
ALB/PHA/82/TAS/37	UNIDO	Verification report on the implementation of the HCFC phase-out management plan
ARM/PHA/84/TAS/23	UNDP	Verification report on the implementation of the HCFC phase-out management plan
ASP/REF/76/DEM/59	UNEP	Promoting alternative refrigerants in air-conditioning for high ambient countries in West Asia (PRAHA-II)
BKF/PHA/84/TAS/40	UNEP	Verification report on the implementation of the HCFC phase-out management plan
BOT/PHA/80/TAS/20	UNEP	Verification report on the implementation of the HCFC phase-out management plan
BZE/PHA/82/TAS/35	UNEP	Verification report on the implementation of the HCFC phase-out management plan
CPR/FOA/82/INV/06+	UNDP	Conversion of polyurethane foam panels in domestic refrigeration manufacturing at Hisense Kelon from the use of cyclopentane and HFC-245fa to the use of cyclopentane and HFO-1233zd (E) as the blowing agent
CUB/PHA/82/TAS/60	UNDP	Verification report on the implementation of the HCFC phase-out management plan
DOM/REF/81/INV/63	UNDP	Conversion of a commercial refrigerator manufacturing line at Fábrica de Refrigeradores Comerciales, SRL (FARCO) from HFC-134a and R-404A to propane (R-290) as refrigerant
DOM/REF/81/INV/64	Canada	Conversion of a commercial refrigerator manufacturing line at Fábrica de Refrigeradores Comerciales, SRL (FARCO) from HFC-134a and R-404A to propane (R-290) as refrigerant
ERI/PHA/82/TAS/17	UNEP	Verification report on the implementation of the HCFC phase-out management plan
FIJ/PHA/82/TAS/35	UNDP	Verification report on the implementation of the HCFC phase-out management plan
GAM/PHA/82/TAS/36	UNEP	Verification report on the implementation of the HCFC phase-out management plan
GBS/PHA/82/TAS/25	UNEP	Verification report on the implementation of the HCFC phase-out management plan
GLO/REF/47/DEM/268	World Bank	Global Chiller Replacement Project (China, India, Indonesia, Malaysia and Philippines)
GLO/SEV/47/TAS/269	Portugal/UNEP	Communication and cooperation support to Portuguese speaking countries (Angola, Cape Verde, East Timor, Guinea Bissau, Mozambique and Sao Tome and Principe)
GLO/SEV/63/TAS/309	World Bank	Resource mobilization for HCFC phase-out co-benefits study
JOR/PHA/38/INV/77	World Bank	National ODS phase out plan: aerosol, foam, MAC service and solvent sectors
LEB/REF/81/INV/03+	UNIDO	Conversion from HFC-134a and HFC-404A to R-600a and R-290 in domestic refrigeration at Lematic Industries
MAG/PHA/82/TAS/31	UNEP	Verification report on the implementation of the HCFC phase-out management plan
MEX/REF/81/INV/187	UNDP	Conversion of domestic refrigeration manufacturing facility from HFC-134a to isobutane as a refrigerant and conversion of compressors manufacturing facility from HFC-134a-based to isobutane-based at Mabe Mexico

Code	Agency	Project Title
MEX/REF/81/INV/188	Canada	Conversion of domestic refrigeration manufacturing facility from HFC-134a to isobutane as a refrigerant and conversion of compressors manufacturing facility from HFC-134a-based to isobutane-based at Mabe Mexico
MLW/PHA/82/TAS/44	UNEP	Verification report on the implementation of the HCFC phase-out management plan
MOG/PHA/84/TAS/14	UNIDO	Verification report on the implementation of the HCFC phase-out management plan
NER/PHA/82/TAS/34	UNIDO	Verification report on the implementation of the HCFC phase-out management plan
STP/PHA/82/TAS/29	UNEP	Verification report on the implementation of the HCFC phase-out management plan
STV/PHA/77/TAS/24	UNEP	Verification report on the implementation of the HCFC phase-out management plan
SWA/PHA/80/TAS/24	UNEP	Verification report on the implementation of the HCFC phase-out management plan
TKM/PHA/82/TAS/14	UNIDO	Verification report on the implementation of the HCFC phase-out management plan
UGA/PHA/82/TAS/25	UNEP	Verification report on the implementation of the HCFC phase-out management plan
URT/PHA/82/TAS/38	UNEP	Verification report on the implementation of the HCFC phase-out management plan
ZAM/PHA/82/TAS/35	UNEP	Verification report on the implementation of the HCFC phase-out management plan

Annex III

OUTSTANDING INDIVIDUAL PROJECT COMPLETION REPORTS

Code	Agency	Project Title
CPR/ARS/56/INV/473	UNIDO	Sector plan for phase-out of CFCs consumption in MDI sector
IND/HAL/34/INV/315	World Bank	Halon production and consumption sector phase-out plan
JOR/FUM/29/INV/54	Germany	Complete phase-out of the use of methyl bromide in Jordan
JOR/REF/81/INV/103	UNIDO	Conversion of large commercial unitary roof top air-conditioning units of up to 400kW manufacturing facility from HFC (R134a, R407c, R410a) to propane R290 as refrigerant at Petra Engineering Industries Co.
LIR/PHA/85/TAS/29	Germany	Verification report for stage I of HCFC phase-out management plan
ODS alternative surveys	World Bank	Survey of ODS alternatives at the national level
SRL/PHA/82/TAS/51	UNDP	Verification report on the implementation of the HCFC phase-out management plan
YUG/PHA/82/TAS/49	UNIDO	Verification report on the implementation of the HCFC phase-out management plan

Annex IV

OUTSTANDING PROJECT COMPLETION REPORTS BY DECISION IN 2022

Country	MYA Sector/Title	Lead agency/ cooperating agency
Bahrain	HCFC phase-out plan (stage I)	UNEP/UNIDO
Belize	HCFC phase-out plan (stage I)	UNEP/UNDP
China	HCFC phase-out plan (stage I) – room air-conditioning	UNIDO
China	Methyl bromide production	UNIDO
Eswatini (the Kingdom of)	HCFC phase-out plan (stage I)	UNEP/UNDP
Iraq	Replacement of refrigerant CFC-12 with isobutane and foam blowing agent CFC-11 with cyclopentane in the manufacture of domestic refrigerators and chest freezers at Light Industries Company (IRQ/REF/57/INV/07)	UNIDO
Iraq	HCFC phase-out plan (stage I)	UNEP/UNIDO
Maldives	HCFC phase-out plan (stage I)	UNEP/UNDP
Tunisia	HCFC phase-out plan (stage I)	UNIDO/UNEP/France
Zimbabwe	HCFC phase-out plan (stage I)	Germany

Annex V

OUTSTANDING MULTI-YEAR AGREEMENT (MYA) PROJECT COMPLETION REPORTS

Country	MYA sector/title	Lead agency/cooperating agency
Argentina	CFC production	World Bank
Bahamas	CFC phase-out plan	World Bank
China	CFC/CTC/halon accelerated phase-out plan	World Bank/United States of America
Costa Rica	HCFC phase-out plan (stage I)	UNDP
Philippines	CFC phase-out plan	World Bank/Sweden/UNEP
Yemen	Methyl bromide	Germany