



**United Nations  
Environment  
Programme**



Distr.  
GENERAL

UNEP/OzL.Pro/ExCom/59/8  
9 October 2009

ORIGINAL: ENGLISH

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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Fifty-ninth Meeting  
Port Ghalib, Egypt, 10-14 November 2009

**2009 CONSOLIDATED PROJECT COMPLETION REPORT**

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## Executive summary

1. The purpose of this report is to provide the Executive Committee with an overview of the results reported in the project completion reports (PCRs) received during the reporting period, i.e., since the 56<sup>th</sup> Meeting in November 2008. The total number of PCRs received for investment projects in the year 2009 decreased to 14 (compared to 32 in 2008) while the total number of PCRs still due on completed investment projects has decreased from 31 to 29. For non-investment projects, the number of PCRs received in 2009 increased from 69 to 71 and the number of outstanding PCRs increased from 104 to 112.
2. The decrease in the number of PCRs received for 2009 is partly due to the early cut off date (13 September 2009) because of the scheduling of the 59<sup>th</sup> Meeting in early November and for investment projects partly because of the decline in the number of PCRs due. Moreover, UNEP and UNIDO did not follow fully the agreed delivery schedule for the first three quarters of 2009.
3. The 14 PCRs submitted on investment projects were reviewed with respect to phase-out achieved, implementation delays, and completeness of information and data consistency, overall assessment and lessons learned. A number of interesting lessons were reported. Some refer to policy issues, others to umbrella projects and various aspects of project implementation modalities. The most informative ones are presented in Annex II-A. A select number of these are summarized in section VII of this report.
4. Most of the 71 PCRs on non-investment projects contain substantial information and analysis. Lessons learned referred in particular to projects for monitoring of regional trade in ODS in Asia, implementation of refrigeration management plans (RMPs), and of halon management and banking projects. A list of selected lessons learned is reproduced in Annex II-B. The full list is available on request and on the intranet of the Fund Secretariat in the evaluation section under PCRs. The implementing agencies did not this time report lessons learned from implementing multi-year agreements (MYAs).
5. The formats for terminal reports and extension requests for institutional strengthening (IS) projects approved at the 32<sup>nd</sup> Meeting of the Executive Committee continue to be used for renewal requests. While, the current submissions for renewal requests show some improvements in quality with regard to the level of detail and information provided on results achieved and planned future actions, many of the terminal reports and plans of action received continue to be of uneven quality and completeness. In order to allow timely reviewing and approval of extension requests, the agencies are encouraged to continue improving their quality control over the IS reporting.
6. A specific section of the report analyses relevant lessons learned through the PCRs. While no particular decision is required by the Executive Committee on the lessons learned as they do not concern issues that have not yet been addressed by the Executive Committee, they provide interesting insight into project execution for all those preparing and implementing projects in the implementing and bilateral agencies, financial intermediaries, project management units (PMUs) as well as national ozone units (NOUs). Regional network meetings could be a useful forum for discussing lessons learned regarding the implementation of projects in the regions. The Fund Secretariat also takes them into account for the review of projects and phase-out agreements.
7. It is important to note that the Senior Monitoring and Evaluation Officer has not requested PCRs for MYAs as there is no format in place for PCRs for MYAs. In order to address this outstanding issue, a recommendation has been included for the Executive Committee to consider instructing the Senior Monitoring and Evaluation Officer, once recruited, to give due priority to this issue.
8. The recommendations for the Executive Committee's consideration set out at the end of the document relate to the scheduling of next year's submission of PCRs by the agencies, further

improvements in data consistency, the provision of missing information, the need to develop project completion report formats for MYAs and the use of lessons learned reported in PCRs for future project preparation and implementation.

## **I. Introduction**

9. The purpose of this report is to provide the Executive Committee with an overview of the results reported in the PCRs received during the reporting period, i.e., since the 56<sup>th</sup> Meeting in November 2008. A draft of the report was sent to the implementing agencies as well as the bilateral agencies. Comments received were taken into account when finalizing the report. PCRs scheduled for submission by the implementing agencies for 2010 are shown in Table IV in Annex I.

## **II. Overview of PCRs received and due**

10. The total number of PCRs received for investment projects in the year 2009 decreased to 14 (compared to 32 in 2008) while the total number of PCRs still due on completed investment projects has decreased from 31 to 29. For non-investment projects, the number received in 2009 increased from 69 to 71 and the number of outstanding PCRs increased from 104 to 112.

11. The decrease in the number of PCRs received for 2009 is partly due to the early cut off date (13 September 2009) because of the scheduling of the 59<sup>th</sup> Meeting in early November and for investment projects due to the decline in the number of PCRs due. Moreover, UNEP and UNIDO did not follow fully the agreed delivery schedule for the first three quarters of 2009 (see Table I in Annex I).

12. By 13 September 2009 UNDP, which implements by far the largest number of investment projects, delivered 6 compared to 8 PCRs on investment projects scheduled for submission by the end of September this year, and 28 compared to 14 PCRs on non-investment projects. UNEP submitted 29 compared to 67 PCRs on non-investment projects scheduled for submission by the end of July this year, and UNIDO sent 3 compared to 12 PCRs scheduled on investment projects and 2 PCRs on non-investment projects compared to 6 scheduled for submission by the end of September this year. The World Bank provided 1 compared to 5 PCRs on investment projects and 2 PCRs more for non-investment projects than were scheduled by the end of September this year.

13. Since the inception of the Multilateral Fund, implementing agencies and bilateral agencies have submitted, as of 13 September 2009, a total of 1,783 PCRs on investment projects and 819 PCRs on non-investment projects, representing 98.4 per cent (compared to 98.3 per cent last year) of PCRs due for all investment projects and 88 per cent (87.8 per cent last year) for all non-investment projects completed as of 31 December 2008.

14. Tables 1 and 2 below present more detailed data by agency including comparative figures for the previous two reporting periods.

Table 1

**INVESTMENT PROJECTS OVERVIEW**  
(Except multi-year projects)

Agency	Completed projects up to December 2008	Total PCRs received for projects completed up to December 2008	PCRs still due	PCRs received in the reporting period		
				2007	2008	2009 <sup>1</sup>
France	15	11	4	0	2	0
Germany	19	19	0	6	0	3
Italy	6	6	0	1	1	N/A
Japan	6	6	0	0	0	1
United Kingdom (the)	1	1	0	N/A	N/A	N/A
UNDP	883	880 <sup>2</sup>	3	32	11	6
UNIDO	429	422 <sup>3</sup>	7	12	4	3
United States (the)	2	2	0	N/A	N/A	N/A
World Bank	451	436 <sup>4</sup>	15	20	14	1
<b>Total</b>	<b>1,812</b>	<b>1,783</b>	<b>29</b>	<b>71</b>	<b>32</b>	<b>14</b>

<sup>1</sup> After the 56<sup>th</sup> Meeting of the Executive Committee (13 November 2008 to 13 September 2009).

<sup>2</sup> In addition, UNDP submitted 2 PCRs on cancelled projects and 1 PCR for multi-year project.

<sup>3</sup> In addition, UNIDO submitted 1 PCR for a cancelled project, 9 cancellation reports and 1 PCR for multi-year project.

<sup>4</sup> In addition, the World Bank submitted 2 PCRs on cancelled projects.

15. UNEP has the largest number of PCRs due (67 for non-investment projects), followed by the World Bank which has 15 PCRs due for investment and 3 for non-investment projects completed by the end of 2008. UNDP has three PCRs due for investment and 11 for non-investment projects. For UNIDO as well as for several bilateral agencies, the combined numbers of PCRs still due for investment and non-investment projects range between 2 and 12 (see Tables 1 and 2).

Table 2

**NON-INVESTMENT PROJECTS OVERVIEW**  
(Except project preparations, country programmes, multi-year projects, and ongoing projects like networking and clearinghouse activities as well as institutional strengthening projects)

Agency	Completed projects up to December 2008	Total PCRs received for projects completed up to December 2008	PCRs still due	PCRs received in the reporting period		
				2007	2008	2009 <sup>1</sup>
Australia	20	8 <sup>2</sup>	12	N/A	1	0
Austria	1	1	0	N/A	N/A	N/A
Canada	53	51	2	2	4	5
Denmark	1	1	0	N/A	N/A	N/A
Finland	5	2	3	0	0	0
France	17	13	4	2	0	0
Germany	44	40	4	3	4	3
Israel	1	1	0	N/A	N/A	N/A
Japan	8	8	0	0	0	N/A
Poland	1	1	0	N/A	N/A	N/A
Singapore	2	0	2	0	0	0
South Africa	1	1	0	N/A	N/A	N/A
Spain	2	2 <sup>3</sup>	0	N/A	1	2
Sweden	4	4	0	0	3	N/A
Switzerland	3	3	0	N/A	N/A	N/A
UNDP	228	217 <sup>4</sup>	11	21	32	28

Agency	Completed projects up to December 2008	Total PCRs received for projects completed up to December 2008	PCRs still due	PCRs received in the reporting period		
				2007	2008	2009 <sup>1</sup>
UNEP	366	299 <sup>5</sup>	67	7	13	29
UNIDO	103	99	4	16	9	2
United States (the)	40	40	0	N/A	N/A	N/A
World Bank	31	28	3	0	2	2
<b>Total</b>	<b>931</b>	<b>819</b>	<b>112</b>	<b>51</b>	<b>69</b>	<b>71</b>

<sup>1</sup> After the 56<sup>th</sup> Meeting of the Executive Committee (13 November 2008 to 13 September 2009).

<sup>2</sup> In addition, Australia submitted 1 project cancellation report.

<sup>3</sup> In addition, Spain submitted 1 PCR for ongoing project.

<sup>4</sup> In addition, UNDP submitted 2 PCRs on transferred projects.

<sup>5</sup> In addition, UNEP submitted 1 PCR for multi-year project.

### III. Analysis of project completion reports for investment projects

#### (a) PCRs received and due

16. The largest number of PCRs on investment projects was received from UNDP, particularly for foam and refrigeration projects. However, fumigation is the sector with the largest number of PCRs due, followed by refrigeration projects. Fumigants (8) and refrigeration (7) projects combined account for 52 per cent of the 29 PCRs still due from all agencies for investment projects completed by the end of 2008 (see Table II in Annex I). The backlog of PCRs on early investment projects completed by the end of 2001 has been eliminated and only two remain for projects completed before 2005.

17. The 14 PCRs received in the reporting period (13 November 2008 to 13 September 2009) represent projects completed in 12 countries.

#### (b) Ozone depleting substance (ODS) phase-out achieved

18. ODS phase-out in the projects covered by the 14 PCRs is found to be as planned in most cases, the total phase-out reported being slightly less than the planned amount (see Table 3 below). However, information in the PCRs on phase-out achieved is in some cases incomplete when unit production and ODS consumption data before and after the conversion have not been provided (see also Table X in Annex I). Moreover, the ODS phase-out data reported in the PCRs are different in 5 of the 14 reports from the ODS data reported in the 2008 progress report. While this is in some cases due to different rounding of figures, for 4 projects significant differences are noted, which are being clarified with the agencies concerned. However, the number of cases with such differences and the volume of differences is more than last year.

Table 3

#### ODS PHASED OUT BY PROJECTS WITH PCRS SUBMITTED

Agency	Number of projects	PCR		2008 progress report	
		ODP phase-out planned	ODP phased out	ODP phase-out planned	ODP phased out
Bilateral	4	46.7	53.8	46.7	23.0
UNDP	6	462.4	341.1	462.4	462.4
UNIDO	3	243.4	243.4	243.4	243.4
World Bank	1	954.0	954.0	954.0	954.0
<b>Total</b>	<b>14</b>	<b>1,706.5</b>	<b>1,592.3</b>	<b>1,706.5</b>	<b>1,682.8</b>

**(c) Implementation delays**

19. Out of 14 projects, 12 showed delays ranging from 6 months to 86 months; one PCR was completed before the scheduled date and one PCR was completed on time. In 50 per cent of 14 projects, delays of more than 12 months occurred compared to 82 per cent of projects for which PCRs were received last year. Average delays reported in PCRs in 2009 decreased to 24 months (from 37 months) and the average project duration decreased from 69 months to 57 months (see Table 4 below).

20. The limited number of PCRs covered in the analysis does not allow a discussion of any trend. Delays are most frequently attributed to the recipient enterprise (7), followed by the government (5), the supplier (3), external factors (2), the implementing agency (1) and the funding (1).

Table 4

**IMPLEMENTATION DELAYS**  
(Total figures in brackets show last year for comparison)

Agency	Number of projects	Average delays as per PCRs (months)	Average delays as per 2008 progress reports (months)	Average duration as per PCRs (months)	Average duration as per 2008 progress reports (months)
Bilateral	4	24.86	25.61	48.71	49.46
UNDP	6	16.90	20.28	57.13	60.35
UNIDO	3	17.27	17.27	50.07	50.07
World Bank	1	86.27	86.27	111.60	111.60
<b>Total</b>	<b>14 (29)</b>	<b>24.21 (37.47)</b>	<b>25.87 (36.18)</b>	<b>57.10 (69.44)</b>	<b>58.70 (69.10)</b>

**(d) Completeness of information**

21. Key information was less regularly provided than last year, for example the list of equipment destroyed was included in 50 per cent of the PCRs, compared to 82.8 per cent last year (see Table 5 below). Information still frequently is not complete, in particular with regard to annual consumption of ODS and substitutes (35.7 per cent of the PCRs compared to 17.2 per cent in 2008), equipment destroyed (7.1 per cent of the PCRs compared to 6.9 per cent the year before), operating cost and savings (14.3 per cent compared to 13.8 per cent in 2008) and list of capital equipment (7.1 per cent compared to 6.9 per cent in 2008).

Table 5

**INFORMATION PROVIDED IN INVESTMENT PROJECT COMPLETION REPORTS  
RECEIVED DURING THIS REPORTING PERIOD**  
(Figures in brackets show last year for comparison)

	Provided		Incomplete		Not provided		"Not applicable"*	
	Number of projects	Percentage %	Number of projects	Percentage %	Number of projects	Percentage %	Number of projects	Percentage %
List of annual consumption of ODS and substitutes	9	64.3 (72.4)	5	35.7 (17.2)	0	0.0 (3.5)	0	0.0 (6.9)
List of capital equipment	13	92.9 (93.1)	1	7.1 (6.9)	0	0.0 (0.0)	0	0.0 (0.0)
Operating cost details	7	50.0 (69.0)	2	14.3 (13.8)	0	0.0 (6.9)	5	35.7 (10.3)
List of destroyed equipment	7	50.0 (82.8)	1	7.1 (6.9)	1	7.1 (10.3)	5	35.8 (0.0)

\* According to indications of implementing agencies

**(e) Overall assessment and rating**

22. During the reporting period, implementing agencies rated 14.3 per cent of projects as highly satisfactory, which is down from 20.7 per cent in the previous year; 78.6 per cent were rated as satisfactory, compared to 72.4 per cent in 2008, and 7.1 per cent as less satisfactory compared to 6.9 per cent reported in the year before (see Table 6 below).

Table 6

**NEW OVERALL ASSESSMENT OF PROJECT IMPLEMENTATION BY THE AGENCIES  
IN THE NEW PCR FORMAT  
(Figures in brackets show last year for comparison)**

Assessment	Bilateral	UNDP	UNIDO	World Bank	Total	Percentage of total %
Highly satisfactory		1	1		2	14.3 (20.7)
Satisfactory	3	5	2	1	11	78.6 (72.4)
Less satisfactory	1				1	7.1 (6.9)
<b>Total</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>1</b>	<b>14</b>	<b>100.0</b>

**IV. Analysis of non-investment project completion reports****(a) Overview**

23. Seventy-one PCRs were received for non-investment projects, the majority of which are for technical assistance projects implemented mainly by UNDP and UNEP. UNEP has submitted more PCRs than in previous years, however the backlog of delayed PCRs has remained the same as last year. For bilateral technical assistance projects there are still 23 PCRs due, as well as 5 PCRs on training projects (see Table III in Annex I). This review does not include country programmes, project preparation, or UNEP's recurrent activities (including networking), which do not require PCRs as per decision 29/4.

**(b) Funding, delays, phase-out and assessment**

24. Total actual expenditures for all completed non-investment projects with PCRs were reported to be 93 per cent of the planned expenditures indicating some overall savings (see Table 7). These data need to be reconfirmed once the final financial figures become available.

Table 7

**BUDGETS, PHASE-OUT AND DELAYS REPORTED IN PCRS RECEIVED  
FOR NON-INVESTMENT PROJECTS  
(Figures in brackets show last year for comparison)**

Agency	Number of projects	Approved funds (US\$)	Funds disbursed (US\$)	ODP to be phased out (ODP tonnes)	ODP phased out (ODP tonnes)	Average delays (months)
Bilateral	10	1,814,938	1,806,888	137.47	137.47	32.05 (32.97)
UNDP	28	3,725,791	3,439,905	269.56	38.72	20.21 (12.69)
UNEP	29	1,215,791	1,010,201	94.50	87.20	20.60 (26.16)
UNIDO	2	239,535	237,165	40.40	40.40	-1.53 (20.74)
World Bank	2	1,282,250	1,207,369	250.00	86.93	79.13 (43.62)
<b>Total</b>	<b>71</b>	<b>8,278,305</b>	<b>7,701,528</b>	<b>791.93</b>	<b>390.72</b>	<b>23.13 (20.89)</b>



25. The delays experienced in project implementation continue to show a great deal of variance. Out of 71 non-investment projects, 2 were completed before the scheduled date and 4 were completed on time. Delays were experienced in 64 projects ranging from one month to 110 months and one project did not report on actual completion date. In 50 cases, or 70.4 per cent of the projects, delays of more than 12 months occurred. Twelve projects reported delays between 37 and 110 months. Agencies concerned were UNDP and UNEP, mainly for components of RMPs such as customs training, implementation and monitoring of recovery and recycling, technical assistance or demonstration projects, along with Australia, Canada and the World Bank.

26. UNDP shows an increase in average delays (20.21 months compared to 12.69 months last year). The average delay in UNEP's projects decreased from 26.16 to 20.6 months, and delays in the World Bank's projects increased from 43.62 to 79.13 months. The overall average delays for non-investment projects is 23.13 months beyond the planned completion date, showing a significant increase compared with 20.89 months in 2008.

27. The difference in ODP phase-out planned and reported as achieved is almost entirely due to seven projects implemented by UNDP, UNEP and the World Bank for which the actual ODS phase-out was reported to be less than planned.

28. 19.7 per cent of the projects were marked as "highly satisfactory", which is more than last year (16.3 per cent); 67.6 per cent were rated as "satisfactory as planned" which is more than last year when this figure was 34.7 percent and 7 per cent as 'satisfactory though not as planned' which is less than last year when this figure was 30.6 per cent (see Table 8). The validity of such assessments can only be verified during evaluations. In several projects rated as "satisfactory though not as planned", no clear explanation for this rating has been provided. Two out of 71 non-investment projects did not report any assessments and for one of these an assessment is not applicable.

Table 8

**OVERALL ASSESSMENT OF NON-INVESTMENT PROJECTS BY AGENCIES**  
(Figures in brackets show last year for comparison)

Assessment	Bilateral	UNDP	UNEP	UNIDO	World Bank	Total	Percentage of total %
Highly satisfactory	5	3	4	2		14	19.7 (16.3)
Satisfactory or satisfactory and as planned	4	21	22		1	48	67.6 (34.7)
Satisfactory though not as planned		2	2		1	5	7.0 (30.6)
Unsatisfactory or less satisfactory		1				1	1.4 (0.0)
Not applicable	1					1	1.4 (0.0)
Not provided		1	1			2	2.8 (18.4)
<b>Total</b>	<b>10</b>	<b>28</b>	<b>29</b>	<b>2</b>	<b>2</b>	<b>71</b>	<b>100.0</b>

**(c) Quality of information received**

29. Most PCRs for non-investment projects contain substantial information and analysis. The sections on causes of delays and corrective actions taken continue to vary considerably in terms of details provided. Usually governmental and agency are given as causes for delays.

30. Comments on draft PCRs have been provided by NOUs for 37 (52 per cent) of the 71 reports received, and by the implementing agency in 60 (84.5 per cent) of the 71 cases. This is an improvement compared to last year when 31 (63 per cent) of the 49 reports received contained comments from the implementing agencies. However, NOUs commented less regularly than last year when they had done so

in 28 (57 per cent) out of 49 cases. The reported lessons learned have in many cases been interesting and substantial, as documented in Annex II-B. The use of the guidelines for the preparation of PCRs on non-investment projects, which include a section on lessons learned, may have contributed to this positive development.

**(d) Institutional strengthening**

31. According to decision 29/4, IS projects are providing terminal reports on the previous phase at the same time as requests for an extension (see Table 9).

Table 9

**OVERVIEW OF INSTITUTIONAL STRENGTHENING REPORTING**

Agency	PCRs on IS projects received before decision 29/4	Terminal reports received with extension requests for projects completed up to December 2008 <sup>1</sup>	Terminal reports received with extension requests in 2009 <sup>2</sup>
France	1	0	0
Germany	0	3	0
UNDP	1	113	10
UNEP	10	287	58
UNIDO	2	21	8
United States (the)	0	1	0
World Bank	7	22	2
<b>Total</b>	<b>21</b>	<b>447</b>	<b>78</b>

<sup>1</sup> Completed in the sense of a phase being completed.

<sup>2</sup> Excluding start-up projects where approval is only for one year. In those cases, no terminal reports are submitted.

32. The formats for terminal reports and extension requests for IS projects approved at the 32<sup>nd</sup> Meeting of the Executive Committee continue to be used for renewal requests. While, the current submissions for renewal requests show improvements in quality with regard to the level of detail and information provided on results achieved and planned future actions, many of the terminal reports and plans of action received continue to be of uneven quality and completeness. They also vary considerably in terms of length, level of detail, and logical structure. Often the objectives and results are presented in qualitative terms only without specifying the contribution of the IS project to the operations of the NOU as a whole. There are also rarely concrete references to problems, constraints, risks or failures which would allow for a more profound assessment of real conditions and, therefore, a more realistic appraisal of the activities planned and performed. In some instances, it was obvious that information was recycled from previous submissions without having it updated.

33. In addition, some agencies have submitted requests beyond the deadlines set (eight weeks before the start of the Executive Committee Meeting). The Secretariat is concerned that poorly documented submissions may mean that requests for renewals cannot be processed in time due to lack of information and the countries might suffer from a delay in approval. The agencies are therefore encouraged to continue improving their quality control over the IS reporting and ensure that the results achieved, lessons learned and remaining issues are properly highlighted in the terminal reports. The agencies should also take note of the fact that IS renewal requests may be submitted six months in advance of the completion date for the current phase to avoid disruption in the NOU staffing and activities covered by the IS project.

**V. Schedule for submission of PCRs in 2010**

34. The implementing agencies submitted, as in previous years, schedules for submission of PCRs due. Table IV in Annex I shows PCRs due for projects completed as of 31 December 2008 and takes into

account the number of outstanding PCR as of 13 September 2009. The implementing agencies will, in addition to the above schedule, submit PCRs in 2010 for projects completed during 2009.

## **VI. Improve consistency of data reported in PCRs and in annual progress reports**

35. Decision 56/7(b)(i) requested implementing agencies, in cooperation with the Fund Secretariat, to establish full consistency of data reported in the PCRs, in the inventory and the annual progress reports by the end of January 2009. The Fund Secretariat provided all agencies with detailed information on data completeness and inconsistencies of PCRs received in comparison to the inventory and the progress reports. All cases of incomplete information and data inconsistencies in PCRs received in 2003 have now been resolved, while this process still continues with UNDP (for some PCRs received in 2004 and 2005) and the World Bank (for PCRs received in 2005) (see Tables V and VI in Annex I), with several agencies for PCRs received in 2006 (see Tables VII in Annex I), the World Bank for PCRs received in 2007 (see Table VIII in Annex I) and several agencies for PCRs received in 2008 (see Table IX in Annex I).

36. During the reporting period, 24 PCRs were received with incomplete information and 49 PCRs with data inconsistencies (see Table X in Annex I). Regarding PCRs with incomplete information, the number has decreased in line with the reduction in the number of PCRs received (24 PCRs compared to 27 PCRs last year). The total number of PCRs with data inconsistencies also decreased in line with the reduction of PCRs received (49 PCRs compared to 73 PCRs last year).

37. In order to improve consistency of data and facilitate the preparation of PCRs, agencies can, since July 2004, download key project data from the website of the Fund Secretariat. When indicating the project number or title the first page of the PCR forms will be automatically filled in with data from the Fund Secretariat's project inventory database, including actual data and remarks from the last progress reports. However, the continued high number of reports with inconsistencies appears to indicate that this facility is still not regularly used.

## **VII. Lessons learned on investment and non-investment projects**

38. Lessons learned have been reported in quite a number of PCRs and offer important and useful insights into the various aspects of the project implementation process. They range from reflections on the importance of stakeholder involvement to the use of appropriate technologies, public awareness and implementation of HCFC surveys. While the edited texts of such lessons reported are contained in Annex II, a select number are summarized below under several headings. The full list from the PCR database is available on request, including those reported in PCRs received after the cut off date of 13 September 2009. This is also to be found on the intranet of the Fund Secretariat in the evaluation section under PCRs.

### **(a) Advantages of involving stakeholders for project success**

39. The umbrella project for the commercial refrigeration manufacturing sector in Plurinational State of Bolivia concluded that carrying out and working together with the beneficiaries at all the stages of the project is very important to raise awareness and to get the commitments required from them for project success. Moreover, working together with the beneficiaries from the beginning was useful for the government to understand their needs and determine accordingly measures that will benefit the industry.

40. The need to promote the involvement of beneficiaries and stakeholders in project implementation seems to be especially critical for the success of methyl bromide projects. Several countries, including Brazil, Chile, Kenya, Paraguay and Zimbabwe, indicated in the lessons learned that beneficiaries and

stakeholder involvement was a key element to raise awareness, gain commitment and ensure that the projects stay focused on appropriate alternative technologies.

41. A project in Paraguay concludes that creating awareness among stakeholders is necessary when consumption of an ODS is concentrated in one single sector. Involving high level officials from Government and high level Montreal Protocol officers is essential for the success in addressing a non-compliance situation. Creating consensus among all stakeholders (especially governmental bodies and end users) is essential.

42. The PCR on the technical assistance to comply with the phase-out of methyl bromide in Mexico concluded that close collaboration and involvement of research and scientific institutions enhanced scientific information and data exchange regarding current research on methyl bromide alternatives and emissions reduction is beneficial for project success. Also cooperation with the regional UNEP ROLAC team and MBTOC, and sharing expertise in the region, strengthened the results of the technical assistance programme for methyl bromide alternatives in Mexico.

**(b) The importance of appropriate technology**

43. A project in Colombia concluded that for large phase-out projects in the foam sector covering numerous smaller manufacturers it is possible to work with equipment suppliers to develop very simple, low-cost foam dispensers in order to supply the largest possible number of recipients within the project budget. Several equipment manufacturers worked in cooperation with the study to develop equipment for use in manufacturing rigid and integral skin polyurethane foam, and the results can be applied to other future projects where low-cost simplified equipment would be helpful. The study results were presented in formal reports through this project.

44. Relative to the use of liquid carbon dioxide (LCD) technology it was reported from a project in the Islamic Republic of Iran that the use of the LCD technology for the production of mattresses and furniture using high pressure dispensing equipment is a perfectly viable proposition. However, it requires a change of habits and methods in the production process. The educational level of personnel is low and therefore, any change needs more training than is eligible under the fund.

**(c) Lessons from HCFC survey activities**

45. Several PCRs (12) reported interesting lessons learned in the implementation of HCFC surveys carried out during 2007. The key findings and difficulties experienced by the different countries seem to be quite similar in nature. Among the most relevant conclusions we can mention the following:

- (a) Ground-up surveys are time consuming. They need to be an ongoing or continuing activity, particularly if enterprise-level data collection is to be collected and the costs and efforts involved are quite high. In order to generate broad and relevant results in a relatively short timeframe, the survey needed to be carried out from the supply side at the sub-sector or sector level instead of enterprise level, involving information from and interaction with upstream suppliers of chemicals, equipment and components;
- (b) Due to the increased penetration of consumer and industrial goods resulting from economic development, the growth in HCFC consumption has been very rapid in the past decade and unconstrained growth is expected to remain significant in the foreseeable future until control measures begin to apply;
- (c) Awareness of impending controls on HCFCs, even based on the earlier control schedule, was very limited. Similarly awareness of alternatives to HCFCs was also very limited;

- (d) Availability of alternatives to HCFCs is very limited and their costs high. Many of the alternatives to HCFCs are not proven or mature for several applications;
- (e) Availability of HCFCs until 2015 is not constrained and their prices are expected to remain competitive;<sup>1</sup>
- (f) The volumetric usage of HCFCs is comparable to usage of CFCs in the early years of the Montreal Protocol. Unconstrained consumption of HCFCs is expected to grow until 2015. Given the current and projected consumption levels, long-term management of HCFCs is expected to present considerable challenges and involve significant costs, which the countries expect to be met by technical and financial assistance from the Montreal Protocol.<sup>1</sup>

46. In the case of Colombia, some suggestions were put forward to accelerate the process to zero ODP alternatives with reduced impact on climate change:

- (a) Create suitable technical and financial incentives through the Multilateral Fund;
- (b) Prepare the domestic and commercial refrigeration industry to an early conversion to hydrocarbons. This conversion could become crucial for eventual future exports to developed countries and in case of a significant increase of HCFC prices;
- (c) Develop a feasibility study on an early retirement of old domestic and commercial refrigeration units and their environmentally sound destruction;
- (d) Explore the possibility to replace HCFC-based extinguishers by foam or dry powder units;
- (e) Extend the good practices in maintenance programmes to HCFCs;
- (f) Establish a legal framework for HCFCs to secure good procedures in their use;
- (g) Evaluate opportunities for synergies between environmental programmes for ozone protection and against global warming.

47. A survey in Brazil further concluded that, in an unconstrained scenario, the HCFC use in Brazil would more than double until 2015—the year that control measures under the Montreal Protocol will start taking effect—and that even larger growth—up to triple the baseline use is not unimaginable. Brazil expects an ample future HCFC supply at moderately increasing prices. Possible replacement technologies for HCFCs include HFCs and HCs for the RAC and foams sector with niche opportunities for other organic substances such as methyl formate. Barriers to the introduction of these chemicals are high prices and/or high related investment costs. As such Brazil saw the need for work to be done to decrease these barriers and expressed willingness to entertain participation in related pilot programmes.<sup>2</sup>

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<sup>1</sup> It is important to note that paragraphs 45 (e) and (f) address a series of conclusions included in the PCRs that do not take into consideration the accelerated HCFC phase-out adjustments approved at the Nineteenth Meeting of the Parties. At the time when the HCFC surveys were conducted there was unconstrained consumption, however, HCFC consumption has been constrained by decision XIX/6.

<sup>2</sup> Paragraph 47: Note that the freeze is now in 2013, not 2015 and consumption and production is constrained to the baseline of 2009 and 2010 respectively, in accordance with decision XIX/6 of the Nineteenth Meeting of the Parties.

**VIII. Action expected from the Executive Committee**

48. The Executive Committee might wish to consider:

- (a) Taking note of the 2009 consolidated project completion report including the schedule for submission of project completion reports (PCRs) due and the lessons learned in Annex II;
- (b) Requesting implementing agencies and bilateral agencies concerned:
  - (i) To establish by the end of January 2010, in cooperation with the Multilateral Fund Secretariat, full consistency of data reported in the PCRs in the inventory and in the annual progress reports;
  - (ii) To provide, by the end of January 2010, the information still missing in a number of PCRs;
  - (iii) To clear by the end of January 2010 the backlog of PCRs on projects completed before the end of 2006;
- (c) Requesting that the Senior Monitoring and Evaluation Officer, when recruited, to address the issue of development of a completion report format for completed MYA projects as a matter of priority;
- (d) Inviting all those involved in the preparation and implementation of projects to take into consideration the lessons learned drawn from PCRs when preparing and implementing future projects.

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**Annex I**  
**STATISTICS**

Table I

**SCHEDULE FOR PLANNED SUBMISSION OF PCRS IN 2009 AND ACTUAL DELIVERY**

	Schedule	Sector	Investment PCRs		Non-investment PCRs	
			Schedule	Received	Schedule	Received
UNDP	October 2008			2 FOA		1 TAS
	December 2008	Foam Refrigeration	3		4	
	April 2009	Foam Refrigeration	3		4	
	August 2009	Fumigation Refrigeration	2	2 FOA, 1FUM	2	25 TAS
	September 2009			1 REF	4	2 TAS
	December 2009	Refrigeration Solvents	2		6	
					3	
	<b>Total</b>			<b>10</b>	<b>6</b>	<b>23</b>
<b>Status at 13 September 2009</b>				<b>-2</b>		<b>+14</b>
	Schedule	Sector	Investment PCRs		Non-investment PCRs	
			Schedule	Received	Schedule	Received
UNEP	October 2008	Technical Assistance			1	
	November 2008	Training				1
	December 2008	Technical Assistance Training			7	1
					1	4
	January 2009	Training				2
	February 2009	Technical Assistance Training			5	
					4	
	March 2009	Technical Assistance Training			12	2
					9	
	April 2009	Technical Assistance Training			1	
					9	
	June 2009	Technical Assistance Training			1	1
				13	7	
July 2009	Technical Assistance Training			2	3	
				2	7	
September 2009	Technical Assistance				1	
<b>Total</b>			<b>N/A</b>	<b>N/A</b>	<b>67</b>	<b>29</b>
<b>Status at 13 September 2009</b>				<b>N/A</b>		<b>-38</b>
	Schedule	Sector	Investment PCRs		Non-investment PCRs	
			Schedule	Received	Schedule	Received
UNIDO	January 2009	Methyl Bromide Halon RMP Refrigeration	1		1	2
			1			
	April 2009	Methyl Bromide Solvent	2		1	
			3			
	June 2009	Methyl Bromide Halon	2		2	
	August 2009			2 FUM, 1PAG		2 TAS
	September 2009	Methyl Bromide	3			
	October 2009	Halon			1	
<b>Total</b>			<b>12</b>	<b>3</b>	<b>7</b>	<b>2</b>
<b>Status at 13 September 2009</b>				<b>-6</b>		<b>-4</b>
	Schedule	Sector	Investment PCRs		Non-investment PCRs	
			Schedule	Received	Schedule	Received
World Bank*	December 2009			1 FOA		2 TAS
	March 2009	Halon (1), Refrigeration (1)	2		--	
	September 2009	Foam (1), Methyl bromide (1) Refrigeration (1)	3		--	
	October 2009	Halon (2), Sterilants (1) Methyl bromide (1)	4		--	
	December 2009	Aerosol (3)	3		--	
	<b>Total</b>			<b>12</b>	<b>1</b>	<b>0</b>
<b>Status at 13 September 2009</b>				<b>-1</b>		<b>+2</b>

\* Table includes expected PCRs for projects completed up through December 2007 with outstanding PCRs (19 total) and takes care of the number of outstanding PCRs as of September 2008 minus PCRs that will be submitted by 31 December 2008 (expected 7). The Bank will, in addition to the above schedule, be submitting PCRs in CY2009 for projects completed through 2008 and up to 30 June 2009.

Table II

**PCRS FOR INVESTMENT PROJECTS RECEIVED AND DUE BY IMPLEMENTING AGENCY, SECTOR AND YEAR  
(FOR PROJECTS COMPLETED UNTIL THE END OF 2008)**

Agency	Sector	PCR(s) Received in:																			
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total	2004	2005	2006	2007	2008	2009	Total
UNDP	Aerosol	1	-	9	4	11	-	-	4	3	5	2	-	39	-	-	-	-	-	-	-
	Foam	20	34	79	83	117	87	82	77	7	21	7	2	616	-	-	-	-	2	-	2
	Fumigant	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	1	-	1
	Halon	-	-	3	13	-	1	-	1	-	-	-	-	18	-	-	-	-	-	-	-
	Refrigeration	1	22	2	33	9	22	39	42	1	4	3	1	179	-	-	-	-	-	-	-
	Solvent	3	-	-	19	-	-	1	2	-	-	-	-	25	-	-	-	-	-	-	-
	Sterilant	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-
	<b>Total</b>		<b>25</b>	<b>56</b>	<b>93</b>	<b>152</b>	<b>137</b>	<b>110</b>	<b>122</b>	<b>126</b>	<b>11</b>	<b>31</b>	<b>13</b>	<b>4</b>	<b>880</b>	-	-	-	-	<b>3</b>	-
UNIDO	Aerosol	6	6	10	6	4	2	-	7	-	1	-	-	42	-	-	-	-	-	-	-
	Foam	8	22	3	22	11	15	11	14	8	2	1	-	117	-	-	-	-	-	1	1
	Fumigant	-	-	-	-	2	1	-	1	-	6	1	2	13	-	-	-	-	-	4	4
	Halon	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Process Agent	-	-	-	-	1	3	2	4	-	-	-	1	11	-	-	-	-	-	1	1
	Refrigeration	12	25	11	32	14	22	24	34	7	4	-	-	185	-	-	-	-	-	1	1
	Solvent	5	13	5	3	3	5	5	4	9	-	1	-	53	-	-	-	-	-	-	-
	<b>Total</b>		<b>32</b>	<b>66</b>	<b>29</b>	<b>63</b>	<b>35</b>	<b>48</b>	<b>42</b>	<b>64</b>	<b>24</b>	<b>13</b>	<b>3</b>	<b>3</b>	<b>422</b>	-	-	-	-	-	<b>7</b>
World Bank	Aerosol	4	6	6	-	1	-	2	5	2	-	-	-	26	-	2	1	-	-	-	3
	Foam	18	25	38	20	20	18	8	26	12	6	6	-	197	-	2	-	1	-	-	3
	Fumigant	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	1	-	-	-	2
	Halon	2	1	1	-	-	-	-	-	-	-	-	-	4	1	-	-	-	1	-	2
	Multiple Sectors	1	-	1	-	-	-	-	-	-	2	-	-	4	-	-	-	-	-	-	-
	Others	-	-	2	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
	Process Agent	-	-	-	-	-	-	1	1	-	-	-	-	2	-	-	-	-	-	-	-
	Production	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Refrigeration	18	24	22	26	15	16	12	21	9	7	1	-	171	-	1	-	1	1	-	3
	Solvent	15	4	3	1	-	-	-	3	-	1	-	-	27	1	-	-	-	-	-	1
	Sterilant	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	1
	<b>Total</b>		<b>59</b>	<b>60</b>	<b>73</b>	<b>48</b>	<b>36</b>	<b>34</b>	<b>23</b>	<b>56</b>	<b>24</b>	<b>16</b>	<b>7</b>	<b>-</b>	<b>436</b>	<b>2</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>-</b>
Bilateral	Aerosol	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Foam	-	-	3	2	2	2	-	5	6	6	1	1	28	-	-	-	-	-	-	-
	Fumigant	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	1	1
	Halon	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
	Phase-Out Plan	-	-	-	-	-	-	-	-	-	-	-	1	1							
	Refrigeration	-	1	1	-	-	-	-	2	5	-	2	-	11	-	1	-	1	1	-	3
	Solvent	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-
	<b>Total</b>		<b>-</b>	<b>1</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>-</b>	<b>7</b>	<b>11</b>	<b>7</b>	<b>4</b>	<b>3</b>	<b>45</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Grand Total</b>		<b>116</b>	<b>183</b>	<b>200</b>	<b>265</b>	<b>211</b>	<b>194</b>	<b>187</b>	<b>253</b>	<b>70</b>	<b>67</b>	<b>27</b>	<b>10</b>	<b>1,783</b>	<b>2</b>	<b>7</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>8</b>	<b>29</b>

<sup>1</sup>6 months after projects completion according to the Progress Report



Table III

**PROJECT COMPLETION REPORT RECEIVED AND DUE FOR NON-INVESTMENT PROJECTS  
(FOR PROJECTS COMPLETED UNTIL THE END OF 2008)**

Agency	Sector	See PCR(s) Received so far for Year Due												PCR(s) Due in <sup>1</sup>											
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total	Before 1997	2001	2002	2003	2004	2005	2006	2007	2008	2009	Total
UNDP	Demonstration	-	-	5	-	-	7	1	2	-	-	-	-	15	-	-	-	-	-	-	-	1	1	-	2
	Technical Assistance	-	6	39	17	7	5	1	15	8	21	29	26	175	-	-	-	-	-	-	1	-	3	5	9
	Training	-	18	6	-	-	-	-	-	-	-	4	-	28	-	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	-	<b>24</b>	<b>50</b>	<b>17</b>	<b>7</b>	<b>12</b>	<b>2</b>	<b>17</b>	<b>8</b>	<b>21</b>	<b>33</b>	<b>26</b>	<b>217</b>	-	-	-	-	-	-	<b>1</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>11</b>
UNEP	Technical Assistance	9	53	3	18	22	18	5	6	1	7	7	7	156	-	1	1	1	1	2	5	5	10	10	36
	Training	8	34	1	2	21	15	20	10	5	4	7	16	143	-	-	-	-	-	3	3	8	7	10	31
	<b>Total</b>	<b>17</b>	<b>87</b>	<b>4</b>	<b>20</b>	<b>43</b>	<b>33</b>	<b>25</b>	<b>16</b>	<b>6</b>	<b>11</b>	<b>14</b>	<b>23</b>	<b>299</b>	-	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>13</b>	<b>17</b>	<b>20</b>	<b>67</b>
UNIDO	Demonstration	-	-	-	6	7	3	3	3	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-
	Technical Assistance	-	6	8	-	4	1	3	4	3	15	9	2	55	-	-	-	-	-	-	-	-	1	3	4
	Training	-	1	1	-	5	6	7	1	-	1	-	-	22	-	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	-	<b>7</b>	<b>9</b>	<b>6</b>	<b>16</b>	<b>10</b>	<b>13</b>	<b>8</b>	<b>3</b>	<b>16</b>	<b>9</b>	<b>2</b>	<b>99</b>	-	-	-	-	-	-	-	-	<b>1</b>	<b>3</b>	<b>4</b>
World Bank	Demonstration	1	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-
	Technical Assistance	5	4	6	-	1	-	2	1	1	1	2	-	23	-	-	-	-	-	-	-	1	2	-	3
	Training	-	3	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
	<b>Total</b>	<b>6</b>	<b>7</b>	<b>6</b>	-	<b>1</b>	-	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	-	<b>28</b>	-	-	-	-	-	-	-	<b>1</b>	<b>2</b>	-	<b>3</b>
Bilateral	Demonstration	5	5	12	-	3	1	1	-	2	-	-	1	30	-	-	-	-	-	-	-	-	-	-	-
	Technical Assistance	-	-	13	1	1	9	14	15	8	5	15	5	86	1	-	1	-	-	1	2	-	15	2	22
	Training	1	3	19	1	9	6	5	6	6	2	2	-	60	1	-	-	1	-	1	-	-	1	1	5
	<b>Total</b>	<b>6</b>	<b>8</b>	<b>44</b>	<b>2</b>	<b>13</b>	<b>16</b>	<b>20</b>	<b>21</b>	<b>16</b>	<b>7</b>	<b>17</b>	<b>6</b>	<b>176</b>	<b>2</b>	-	<b>1</b>	<b>1</b>	-	<b>2</b>	<b>2</b>	-	<b>16</b>	<b>3</b>	<b>27</b>
<b>Grand Total</b>	<b>29</b>	<b>133</b>	<b>113</b>	<b>45</b>	<b>80</b>	<b>71</b>	<b>62</b>	<b>63</b>	<b>34</b>	<b>57</b>	<b>75</b>	<b>57</b>	<b>819</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>7</b>	<b>11</b>	<b>15</b>	<b>40</b>	<b>31</b>	<b>112</b>	

<sup>1</sup> 6 months after projects completion according to the Progress Report

Table IV

**SCHEDULE FOR SUBMISSION OF OUTSTANDING PCRS IN 2010  
(FOR PROJECTS COMPLETED UNTIL 31 DECEMBER 2008)**

<b>UNDP</b>	<b>Schedule</b>	<b>Sector</b>	<b>Investment PCRs</b>	<b>Non-Investment PCRs</b>
	September 2010	Aerosols/MDIs		3
		Foam	2	
		Fumigation	1	4
		Halons		1
		Refrigeration		12
		Solvents		1
<b>Total</b>		<b>3</b>	<b>21</b>	
<b>Total PCRs Due as of 13 September 2009</b>			<b>3</b>	<b>11</b>
<b>UNEP</b>	<b>Schedule</b>	<b>Sector</b>	<b>Investment PCRs</b>	<b>Non-Investment PCRs</b>
<b>Total</b>				
<b>Total PCRs Due as of 13 September 2009</b>			<b>N/A</b>	<b>67</b>
<b>UNIDO</b>	<b>Schedule</b>	<b>Sector</b>	<b>Investment PCRs</b>	<b>Non-Investment PCRs</b>
	April 2010	FUM	6	
	May 2010	SOL	2	
	July 2010	REF	1	3
	August 2010	HAL		2
	September 2010	PHA		1
	October 2010	PAG	1	
	November 2010	FOA	1	
	December 2010	ARS	1	
<b>Total</b>		<b>12</b>	<b>6</b>	
<b>Total PCRs Due as of 13 September 2009</b>			<b>7</b>	<b>4</b>
<b>World Bank*</b>	<b>Schedule</b>	<b>Sector</b>	<b>Investment PCRs</b>	<b>Non-Investment PCRs</b>
	March 2010	Halon (1) Refrigeration (1)	2	--
	June 2010	Foam (2) Solvent (1)	3	--
	<b>Total</b>		<b>5</b>	<b>N/A</b>
<b>Total PCRs Due as of 13 September 2009</b>			<b>15</b>	<b>3</b>

\* Table includes expected PCRs for projects completed up through December 2008 with outstanding PCRs (5 total) *minus* PCRs that will be submitted by 31 December 2009 (expected 12). The Bank will, in addition to the above schedule, be submitting PCRs in CY2010 for projects completed through 2009 and up to 30 June 2010.

Table V

**SUMMARY OF PCRs RECEIVED IN 2004 WITH DATA PROBLEMS  
(As of 4 October 2009)**

	Canada		Germany		Japan		UNDP		UNEP		UNIDO		World Bank		Total	
	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved
<b>Incomplete Information</b>			2	2	1	1	46	46			28	28	9	9	86	86
<b>Solved as % of Total</b>				<b>100%</b>		<b>100%</b>		<b>100%</b>				<b>100%</b>		<b>100%</b>		<b>100%</b>
<b>Data Inconsistencies</b>																
Planned Date of Completion	1	1	1	1							1	1	3	3	6	6
Revised Planned Date of Completion	1	1	3	3	1	1	15	15	4	4	2	2	24	24	50	50
Date Completed	1	1	3	3			11	10	1	1			9	9	25	24
Funds Approved							2	2			3	3	6	6	11	11
Funds Disbursed	2	2					9	9					6	6	17	17
ODP To Be Phased Out							2	1			2	2			4	3
ODP Phased Out							1	0			4	4	3	3	8	7
<b>Total</b>	<b>5</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>40</b>	<b>37</b>	<b>5</b>	<b>5</b>	<b>12</b>	<b>12</b>	<b>51</b>	<b>51</b>	<b>121</b>	<b>118</b>
<b>Solved as % of Total</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>		<b>93%</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>		<b>98%</b>

Table VI

**SUMMARY OF PCRs RECEIVED IN 2005 WITH DATA PROBLEMS  
(As of 4 October 2009)**

	Canada		Germany		Japan		UNDP		UNEP		UNIDO		World Bank		Total	
	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved
<b>Incomplete Information</b>	1	1	1	1	1	1	33	28			32	32	11	10	79	73
<b>Solved as % of Total</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>		<b>85%</b>				<b>100%</b>		<b>91%</b>		<b>92%</b>
<b>Data Inconsistencies</b>																
Date Approved	3	3					3	3							6	6
Planned Date of Completion			1	1			15	15			2	2	2	1	20	19
Revised Planned Date of Completion	3	3			2	2	23	21	3	3			27	26	58	55
Date Completed	2	2	1	1	2	2	22	22	1	1	1	1	6	6	35	35
Funds Approved	1	1	1	1									6	6	8	8
Funds Disbursed	1	1					4	4			1	1	5	5	11	11
ODP To Be Phased Out							2	2					3	3	5	5
ODP Phased Out							4	4			1	1	3	3	8	8
<b>Total</b>	<b>10</b>	<b>10</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>73</b>	<b>71</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>52</b>	<b>50</b>	<b>151</b>	<b>147</b>
<b>Solved as % of Total</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>		<b>97%</b>		<b>100%</b>		<b>100%</b>		<b>96%</b>		<b>97%</b>

Table VII

**SUMMARY OF PCRs RECEIVED IN 2006 WITH DATA PROBLEMS  
(As of 4 October 2009)**

	Australia		Canada		France		Germany		Japan		Poland		UNDP		UNEP		UNIDO		World Bank		Total	
	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved
<b>Incomplete Information</b>	1	1	1	1	2		8	8					5		1	1	9	9	35	16	62	36
<b>Solved as % of Total</b>		100%		100%		0%		100%		N/A		N/A		0%		100%		100%		46%		58%
<b>Data Inconsistencies</b>																						
Date Approved	1	1			1		1	1											3	2	6	4
Planned Date of Completion	1	1	2	2	1									1	1			17	4	22	8	
Revised Planned Date of Completion	1	1	5	5	1		4	4						3	3	1	1	43	8	58	22	
Date Completed	2	2			2		3	3	1	1	1						1	1	5	3	15	10
Funds Approved			2	2	1		1	1										4	0	8	3	
Funds Disbursed			4	4	1									1	1			4	0	10	5	
ODP To Be Phased Out							2	2									1	1	5	2	8	5
ODP Phased Out			1	1	1		8	8	1	1							1	1	5	2	17	13
<b>Total</b>	<b>5</b>	<b>5</b>	<b>14</b>	<b>14</b>	<b>8</b>	<b>0</b>	<b>19</b>	<b>19</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>0</b>		<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>86</b>	<b>21</b>	<b>144</b>	<b>70</b>	
<b>Solved as % of Total</b>		100%		100%		0%		100%		100%		0%		N/A		100%		100%		24%		49%

Table VIII

**SUMMARY OF PCRs RECEIVED IN 2007 WITH DATA PROBLEMS  
(As of 4 October 2009)**

	Canada		France		Germany		UNDP		UNEP		UNIDO		World Bank		Total	
	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved
<b>Incomplete Information</b>	2	2			7	7	26	26			3	3	10		48	38
<b>Solved as % of Total</b>		100%				100%		100%				100%		0%		79%
<b>Data Inconsistencies</b>																
Date Approved									1	1				1		1
Planned Date of Completion									1	1				1		2
Revised Planned Date of Completion	1	1					1	1			5	5	15		22	7
Date Completed			1	1	6	6	9	9	1	1	1	1	5		23	18
Funds Approved											1	1	3		4	1
Funds Disbursed									1	1			4		5	1
ODP To Be Phased Out			1	1	2	2	12	12	2	2	1	1	2		20	18
ODP Phased Out			1	1	7	7	12	12			1	1	1		22	21
<b>Total</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>15</b>	<b>15</b>	<b>34</b>	<b>34</b>	<b>6</b>	<b>6</b>	<b>9</b>	<b>9</b>	<b>32</b>	<b>0</b>	<b>100</b>	<b>68</b>
<b>Solved as % of Total</b>		100%		100%		100%		100%		100%		100%		0%		68%

Table IX

**SUMMARY OF PCRs RECEIVED IN 2008 WITH DATA PROBLEMS  
(As of 4 October 2009)**

	Australia		Canada		France		Sweden		UNDP		UNEP		UNIDO		World Bank		Total		
	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	
<b>Incomplete Information</b>	1	1	1	1					17	14	1	1	4	1	3		27	18	
<b>Solved as % of Total</b>		100%		100%						82%		100%		25%		0%		67%	
<b>Data Inconsistencies</b>																			
Date Approved									1	1			1	1	1		3	2	
Planned Date of Completion	1	1	1	1			1	1	2	2			2	2	1		8	7	
Revised Planned Date of Completion									6	6	3	3	1	1			10	10	
Date Completed	1	1			1				14	14					1		18	15	
ODP To Be Phased Out			1	1					12	12	2	2			1		16	15	
ODP Phased Out			1	1					14	14	2	2			1		18	17	
<b>Total</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>1</b>		<b>1</b>	<b>1</b>	<b>49</b>	<b>49</b>	<b>7</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>5</b>		<b>73</b>	<b>66</b>	
<b>Solved as % of Total</b>		100%		100%			0%		100%		100%		100%		100%		0%		90%

Table X

**SUMMARY OF PCRs RECEIVED IN 2009 WITH DATA PROBLEMS  
(As of 4 October 2009)**

	Canada		Germany		Japan		Spain		UNDP		UNEP		UNIDO		Total	
	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved
<b>Incomplete Information</b>	2		5	5					14		1		2	2	24	7
<b>Solved as % of Total</b>		0%		100%						0%		0%		100%		29%
<b>Data Inconsistencies</b>																
Date Approved									1						1	0
Revised Planned Date of Completion			3	3					3				1	1	7	4
Date Completed	1				1	1	1		8		1				12	1
ODP To Be Phased Out	1		2	2	1	1			4		2				10	3
ODP Phased Out	1		2	2			1		9				1	1	14	3
Funds Approved									1						1	0
Funds Disbursed	1								1		2				4	0
<b>Total</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>27</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>49</b>	<b>11</b>
<b>Solved as % of Total</b>		0%		100%		100%		0%		0%		0%		100%		22%

## Annex II

### LESSONS LEARNED REPORTED IN PROJECT COMPLETION REPORTS

#### A. INVESTMENT PROJECTS

- (a) Carrying out and working together with the beneficiaries at all the stages of the project is very important in order to get the commitments required from them; in this particular case training had also an awareness function. Working together with the beneficiaries from the beginning was also useful for the government to understand their needs and determine accordingly measures that will benefit the industry. (BOL/REF/42/INV/25)
- (b) Chile has the following lessons to share from project CHI/FUM/32/INV/143, phase-out of methyl bromide (MB) soil fumigation for fruit tree production and replant:
  - (i) The execution of the project provided consistent and relevant information to overcome existing gaps between the activities of technology transfer/training (including demonstration and field work) and the adoption of the new technology or new way to manage the nursery or farm systems. The full adoption of a new technology, no matter how profitable it could be or how certified its results are, has a duration that usually exceeds the duration of a research and development project.
  - (ii) Another learned lesson is the need to elaborate and design a project taking into account the national circumstances. As an example, the existing national regulatory institutional arrangement and the framework of the entities involved in the project activities has to be taken into account to avoid useless duplication of activities and waste of financial resources.
  - (iii) Taking the results of the project into account, it can be concluded that almost all the uses of MB, excluding the quarantine uses, can be abated with different level of complexity (being the use in plant nurseries working with artificial soils the easiest to be abated) and that the disappearance of MB – as soil fumigant – might bring temporal adaptation inconvenient but not a collapse of the fruit production in the country. Still, the case of strawberry has to be considered perhaps as the most difficult to abate use of MB in the country.
  - (iv) Another lesson is referred to the need of having a traceable use of MB. Fortunately, the promulgation of the Supreme Decree 037 (dated 28/02/2007) provided the quota system and an ODS Importer/Exporter Registry, which can be considered as the basis for the development of a traceable system.
  - (v) Finally, the nomination of the Steering Committee by INIA was a great achievement by the project, allowing to progress properly regardless of the incidence and impact of some external and negative signals. This is mainly related to the problem that Chile had to face during 2005 due to lack of compliance with its Montreal targets for the years 2003 and 2004 (consumption of MB in excess of the baseline consumption). At the end, the Steering Committee of the project was replicated at the Ministry of Agriculture level and transformed into the MB working table that designed the strategy that allowed Chile a very soon come back into compliance.

- (c) For large sector phase-out projects covering numerous smaller manufacturers, it is possible to work with equipment suppliers to develop very simple, low-cost foam dispensers in order to supply the largest possible number of recipients within the project budget. Several equipment manufacturers worked in cooperation with the study to develop equipment for use in manufacturing rigid and integral skin polyurethane foam, and the results can be applied to other future projects where low-cost simplified equipment would be helpful. The study results were presented in formal reports through this project. (COL/FOA/38/INV/58)
- (d) The use of the LCD technology for the production of mattresses and furniture using high pressure dispensing equipment is a perfectly viable proposition. However, it requires a change of habits and methods in the production. The educational level of personnel is low and therefore, any change needs more training than is eligible under the fund. (IRA/FOA/37/INV/152)
- (e) Mexico project MEX/FOA/42/INV/117 has the following suggestions for the implementation of foam sector ODS phase-out plans:
  - (i) The project implementation should specify a deadline for the benefiting companies to provide the appropriate documentation, thus eliminating the delays experienced during this project's phase-out;
  - (ii) The approach through System Houses helped to accelerate the process of technology change.
- (f) Making use of local technical personnel to address post-conversion processing issues is a cost-effective and helpful way to assure that conversions are successful and maintained long-term. This project made use of both a chemical and process specialist to identify issues, while a polyurethane specialist was enlisted to provide solutions. (PER/FOA/35/INV/30)
- (g) Technology transfer has been successful due to some of the following positive factors:
  - (i) Active involvement of all stakeholders including national Government, NOU, and the enterprise, technology supplier;
  - (ii) Training was important components of the projects and also a key component for success of implementation of the project. Training was carried out in close collaboration with the regional GMB staff and with the help of NOU. Visits to the bag depots were organized. These activities clearly facilitated adoption of the described alternatives;
  - (iii) Excellent contributions from national and international consultants. (ZIM/FUM/50/INV/36)

## **B. NON-INVESTMENT PROJECTS**

- (a) Implementation of public awareness programme for the refrigerant management plan (RMP) in Plurinational State of Bolivia:



- (i) Public awareness materials are most effective when they are developed nationally, as was the case in this project, based on the languages and cultures of each specific country;
  - (ii) Particular attention should be paid to conceptualize and implement public awareness activities as part and in support of the overall RMP project. Such activities should place primary emphasis on informing the main beneficiaries of the RMP projects, and the persons, groups or organizations whose activities will have the greatest impact in achieving the objectives of the RMP;
  - (iii) In the same sense, while local realities must be taken into account in any awareness-raising programme, efforts should be made to limit the risk of national governments' priorities shaping the public awareness activities, in place of the RMP specific priorities. (BOL/REF/36/TAS/20)
- (b) Implementation of monitoring activities in RMP in Plurinational State of Bolivia:
- (i) Contracting procedures are different according to countries. However, in the case of such complex projects as the refrigeration management plan, some flexibility should be introduced into the contracts with consultants to allow for more time to conduct the activities without necessarily requiring budget adjustments. This could be done through contracts where payments are based on the completion of products, instead of periodical payments;
  - (ii) In monitoring and evaluation projects, the emphasis should not be put only on financing RMP project coordination activities. In order to draw lessons from the project and to improve activities over time, both for the NOU and the implementing agency, focus should be put on the effective monitoring and evaluation of all RMP components, based on mutually agreed variables and indicators;
  - (iii) Project delays and cost overruns often have the effect of limiting a country's motivation and ability to conduct a real and complete ex-post evaluation of the project. (BOL/REF/36/TAS/22)
- (c) Lessons learned from the assistance to carry out an HCFC survey in Indonesia:
- (i) Ground-up surveys are time consuming. They need to be an ongoing or continuing activity, particularly if enterprise level data collection is to be collected and the costs and efforts involved are quite high. In order to generate broad and relevant results in a relatively short timeframe, the survey needed to be carried out from the supply side at the sub-sector or sector level instead of enterprise level, involving information from and interaction with upstream suppliers of chemicals, equipment and components;
  - (ii) Due to the increased penetration of consumer and industrial goods resulting from economic development, the growth in HCFC consumption has been very rapid in the past decade and unconstrained growth is expected to remain significant until the foreseeable future;
  - (iii) Awareness of impending controls on HCFCs, even based on the earlier control schedule, was very limited. Similarly awareness of alternatives to HCFCs was also very limited;

- (iv) Availability of alternatives to HCFCs is very limited and their costs high. Many of the alternatives to HCFCs are not proven or mature for several applications;
  - (v) Availability of HCFCs until 2015 is not constrained and their prices are expected to remain competitive;
  - (vi) The volumetric usage of HCFCs is comparable to usage of CFCs in the early days of the Montreal Protocol. Unconstrained consumption of HCFCs in Lebanon is expected to grow from 3,976 metric tonnes in 2005 to about 9,662 metric tonnes by 2015. Given the current and projected consumption levels, long-term management of HCFCs is expected to present considerable challenges and involve significant costs, which Indonesia expects to be met by technical and financial assistance from the Montreal Protocol. (IDS/SEV/45/TAS/169)
- (d) Lessons learned from the assistance to carry out an HCFC survey in Brazil:
- (i) At the time of the completion of this report, Brazil had annual HCFC consumption of 12,555 tonnes. Growth of the consumption of HCFCs has been forecasted following low, medium and high growth scenarios. Following a moderate growth scenario, HCFC consumption is expected grow by 7.5 per cent per year. This growth will be unevenly divided between sectors, with the RAC sector expected to grow annually by 9 per cent and other applications by 4 per cent;
  - (ii) The report concluded that in an unconstrained scenario, the HCFC use in Brazil will more than double u/t 2015—the year that control measures under the Montreal protocol will start taking effect—and that even larger growth—up to triple the baseline use is not unimaginable. Brazil expects for the future ample HCFC supply at moderately increasing prices. Possible replacement technologies for HCFCs include HFCs and HCs for the RAC and foams sector with niche opportunities for other organic substances such as methyl formate. Barriers to the introduction of these chemicals are high prices and/or high related investment costs. As such Brazil saw the need for work to be done to decrease these barriers and expressed willingness to entertain participation in related pilot programmes;
  - (iii) The Brazilian Government committed to meeting MP deadlines for HCFCs was in favour of--accelerated phase-out programmes. It made a declaration to that matter at the meeting of the Parties to the Montreal Protocol in Delhi, November 2006. The Government of Brazil deemed that the MLF assistance programme at the time did not fund HCFCs and therefore was not suitable for the purpose of assisting in reducing demand and the phase-out of HCFCs, and new guidelines should be prepared using current parameters, being less restrictive and using realistic thresholds on costs;
  - (iv) Identified activities for possible quick results included: a) Best practices programmes for HCFCs in RAC service; b) Retrofit programmes with conversion to blends and energy optimization for large CR installations; c ) Elimination of the use of HCFC-141b used as a solvent for refrigeration circuit flushing; d) A conversion programme for foam manufacturers to non-ODS technologies (HCs for larger ones and niche applications, HFCs or other organic blowing agents for SMEs); e) Equipment replacement programmes aiming at protecting climate and the ozone layer, benefiting from energy savings and partnerships for innovative financing including the Multilateral Fund and other funding sources. Collection

of ODS containing equipment and final destination logistics would also be required;

- (v) The report also concluded that a detailed Strategy would have to be developed which would look into scenarios for the country. (BRA/SEV/45/TAS/271)
- (e) Regional cooperation with UNEP ROLAC and MBTOC and sharing expertise in the region, strengthens the results of the technical assistance programme for methyl bromide alternatives in Mexico. The capability to adapt to local conditions was essential to the success of any alternative. Closed collaboration with research and scientific institutions enhance scientific information and data exchange regarding current research on methyl bromide alternatives and emissions reduction. (MEX/FUM/42/TAS/118 and 121)
- (f) Monitoring activities in RMP update in Moldova:
  - (i) Monitoring and reporting are integral parts of a management cycle that provide a link between planning and actual implementation;
  - (ii) Monitoring activities help to recognize problems quickly and take timely corrective measures;
  - (iii) Received positive feedback from the majority of participants in the project denotes high appreciation of the project activities and necessity to promote incentive funding in future when it is possible. (MOL/REF/44/TAS/11)
- (g) Monitoring the import and export system and recovery/recycling through a local consultant or the NOU on a timely basis are critical to the successful implementation of the RMP. (NEP/REF/28/TAS/07)
- (h) Technical assistance to phase-out the use of MB in Paraguay:
  - (i) Creating awareness among stakeholders is necessary when consumption of an ODS is concentrated in one single sector;
  - (ii) Involving high level officials from Government and high level Montreal Protocol officers is essential for the success of a non-compliance situation;
  - (iii) Creating consensus among all stakeholders (especially governmental bodies and end users) is essential. (PAR/FUM/47/TAS/15)

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