



**United Nations  
Environment  
Programme**

Distr.  
GENERAL

UNEP/OzL.Pro/ExCom/68/7  
6 November 2012

ORIGINAL: ENGLISH



---

EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Sixty-eighth Meeting  
Montreal, 3-7 December 2012

**2012 CONSOLIDATED PROJECT COMPLETION REPORT**

## TABLE OF CONTENTS

Executive Summary .....	3
I. Overview of PCRs received and due .....	3
II. Analysis of project completion reports for investment projects .....	5
(a) PCRs received and due .....	5
(b) Ozone-depleting substances (ODS) phase-out achieved .....	6
(c) Implementation delays .....	6
(d) Completeness of information .....	7
(e) Overall assessment and rating.....	7
III. Analysis of non-investment project completion reports .....	8
(a) PCRs received and due .....	8
(b) Funding, delays, phase-out and assessment .....	8
(c) Quality of information received.....	9
IV. Schedule for submission of PCRs in 2013 .....	9
V. Improve consistency of data reported in PCRs and in annual progress reports .....	9
VI. Lessons learned .....	10
VII. Action expected from the Executive Committee .....	13

### Annexes:

- I Statistics
- II Lessons learned reported in project completion reports

## **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 65<sup>th</sup> meeting in November 2011. A draft of the report was sent to the implementing agencies as well as the bilateral agencies concerned. Comments received were taken into account when finalizing the report. PCRs scheduled for submission by the implementing agencies for 2013 are shown in Table IV in Annex I. The total number of PCRs received for investment projects in the year 2012 increased to 18 (compared to 12 in 2011) while the total number of PCRs still due on completed investment projects has decreased from 24 to 14. For non-investment projects, the number of PCRs received in 2012 decreased from 73 to 16 and the number of outstanding PCRs increased from 94 to 105. UNDP, UNEP, UNIDO and the World Bank did not follow fully the agreed delivery schedule for the first three quarters of 2012.

2. The 18 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. Most of the 16 PCRs on non-investment projects contain substantial information and analysis.

3. A number of interesting lessons were reported and are summarized in section VI of this report. Some refer to the implementation of demonstration projects, others to various aspects of investment project implementation, technical assistance and training. A checklist of general lessons learned for easy reading and use has been prepared at the end of the report. A number of these are presented in Annex II. The full list is available on request and on the intranet of the Fund Secretariat in the evaluation section under PCRs. A number of interesting lessons were reported.

4. 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.

5. 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. Overview of PCRs received and due**

6. The total number of PCRs received for investment projects in the year 2012 increased to 18 (compared to 12 in 2011) while the total number of PCRs still due on completed investment projects has decreased from 24 to 14. For non-investment projects, the number received in 2012 decreased from 73 to 16 and the number of outstanding PCRs increased from 94 to 105. UNDP, UNEP, UNIDO and the World Bank did not follow fully the agreed delivery schedule for the first three quarters of 2012 (see Table I in Annex I).

7. By 16 September 2012 UNDP, which implements by far the largest number of investment projects, delivered 5 compared to 1 PCR on investment projects scheduled for submission by the end of September this year, and 8 compared to 8 PCRs on non-investment projects. UNEP submitted 6 compared to 57 PCRs on non-investment projects scheduled for submission by the end of July this year, and

UNIDO sent one compared to zero PCR scheduled on investment projects by the end of July this year. The World Bank submitted 9 PCRs compared to 6 PCRs scheduled for investment projects and 2 PCRs compared to 4 PCRs scheduled for non-investment projects by June this year.

8. Since the inception of the Multilateral Fund, implementing agencies and bilateral agencies have submitted, as of 16 September 2012, a total of 1,820 PCRs on investment projects and 956 PCRs on non-investment projects, representing 99.2 per cent (compared to 98.7 per cent last year) and 89.8 per cent (90.8 per cent last year) of PCRs respectively for projects completed as of 31 December 2011. 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 2011	Total PCRs received for projects completed up to December 2011	PCRs still due	PCRs received in the reporting period		
				2010	2011	2012 <sup>1</sup>
France	15	11 <sup>2</sup>	4	0	0	1
Germany	19	19 <sup>3</sup>	0	1	N/A	N/A
Italy	10	9 <sup>4</sup>	1	N/A	2	2
Japan	6	6	0	N/A	N/A	N/A
Spain	1	1	0	N/A	N/A	N/A
UNDP	889	887 <sup>5</sup>	2	2	1	5
UNIDO	438	438 <sup>6</sup>	0	13	9	1
United Kingdom of Great Britain and Northern Ireland	1	1	0	N/A	N/A	N/A
United States of America	2	2	0	N/A	N/A	N/A
World Bank	453	446 <sup>7</sup>	7	1	0	9
<b>Total</b>	<b>1,834</b>	<b>1,820</b>	<b>14</b>	<b>17</b>	<b>12</b>	<b>18</b>

<sup>1</sup> After the 65<sup>th</sup> meeting of the Executive Committee (18 November 2011 to 15 September 2012).

<sup>2</sup> In addition, France submitted 1 PCR for multi-year project.

<sup>3</sup> Germany submitted 1 PCR for multi-year project.

<sup>4</sup> In addition, Italy submitted 1 PCR for multi-year project.

<sup>5</sup> In addition, UNDP submitted 2 PCRs on cancelled projects, 2 PCRs for ongoing projects and 1 PCR for multi-year project.

<sup>6</sup> In addition, UNIDO submitted 2 PCRs for cancelled projects, 9 cancellation reports and 14 PCRs for multi-year projects.

<sup>7</sup> In addition, the World Bank submitted 2 PCRs on cancelled projects.

9. UNEP has the largest number of PCRs due (66 for non-investment projects), followed by the World Bank which has 7 PCRs due for investment and 6 for non-investment projects completed by the end of 2011. UNDP has two PCRs due for investment and 6 for non-investment projects. For several bilateral agencies, the combined numbers of PCRs still due for investment and non-investment projects range between 1 and 17 (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 clearing-house activities as well as institutional strengthening projects)**

Agency	Completed projects up to December 2011	Total PCRs received for projects completed up to December 2011	PCRs still due	PCRs received in the reporting period		
				2010	2011	2012 <sup>1</sup>
Australia	25	25 <sup>2</sup>	0	0	17	N/A
Austria	1	1	0	N/A	N/A	N/A
Canada	57	54	3	1	2	0
Denmark	1	1	0	N/A	N/A	N/A
Finland	5	5	0	3	N/A	N/A
France	27	14	13	1	0	0
Germany	54	51	3	10	0	0
Israel	1	1	0	N/A	N/A	N/A
Japan	12	8	4	N/A	0	0
Poland	1	1	0	N/A	N/A	N/A
Portugal	1	0	1	N/A	N/A	0
Singapore	2	0	2	0	0	0
South Africa	1	1	0	N/A	N/A	N/A
Spain	3	3	0	N/A	N/A	N/A
Sweden	5	4 <sup>3</sup>	1	3	3	0
Switzerland	3	3	0	N/A	N/A	N/A
UNDP	257	251 <sup>4</sup>	6	12	15	8
UNEP	421	355 <sup>5</sup>	66	25	33	6
UNIDO	108	108 <sup>6</sup>	0	5	3	N/A
United States of America	40	40	0	N/A	N/A	N/A
World Bank	36	30	6	0	0	2
<b>Total</b>	<b>1,061</b>	<b>956</b>	<b>105</b>	<b>60</b>	<b>73</b>	<b>16</b>

<sup>1</sup> After the 65<sup>th</sup> meeting of the Executive Committee (18 November 2011 to 15 September 2012).

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

<sup>3</sup> In addition, Sweden submitted 3 PCRs for multi-year projects and 3 PCRs on transferred projects.

<sup>4</sup> In addition, UNDP submitted 2 PCRs on transferred projects, 1 PCR for multi-year project and 1 PCR for ongoing project.

<sup>5</sup> In addition, UNEP submitted 11 PCRs for multi-year projects.

<sup>6</sup> In addition, UNIDO submitted 3 PCRs for multi-year projects.

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

### (a) PCRs received and due

10. The largest number of PCRs on investment projects was received from UNDP, particularly for foam and refrigeration projects. However, refrigeration is the sector with the largest number of PCRs due, followed by aerosol projects. Refrigeration (5) and aerosol (3) projects combined account for 57.1 per cent of the 14 PCRs still due from all agencies for investment projects completed by the end of 2011 (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.

11. The 18 PCRs received in the reporting period (18 November 2011 to 15 September 2012) represent projects completed in 13 countries.

**(b) Ozone-depleting substances (ODS) phase-out achieved**

12. ODS phase-out in the projects covered by the 18 PCRs is found to be as planned in most cases, the total phase-out reported being slightly more than the planned amount (see Table 3 below). Moreover, the ODS phase-out data reported in the PCRs are different in four of the 18 reports from those reported in the 2011 progress report. The differences are noted for these projects, which are being clarified with the agencies concerned. However, the number of cases with such differences and the level of differences is more than last year.

Table 3

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

Agency	Number of projects	PCRs		2011 progress report	
		ODP phase-out planned	ODP phased out	ODP phase-out planned	ODP phased out
Bilateral	3	112.1	112.1	445.2	114.9
UNDP	5	560.6	563.0	70.8	70.8
UNIDO	1	97.0	97.0	97.0	97.0
World Bank	9	1,621.4	1,626.8	1,621.4	1,633.5
<b>Total</b>	<b>18</b>	<b>2,391.1</b>	<b>2,399.0</b>	<b>2,234.4</b>	<b>1,916.2</b>

**(c) Implementation delays**

13. Out of 18 projects, 16 showed delays ranging from 5 months to 53 months and two PCRs were completed before the scheduled date. In 61.1 per cent of the 18 projects, delays of more than 12 months occurred compared to 33.3 per cent of projects for which PCRs were received last year. Average delays reported in the PCRs in 2012 increased to 25 months (from 12 months) and the average project duration increased from 42 months to 53 months (see Table 4 below).

14. The limited number of PCRs covered in the analysis does not allow for a discussion of any trend. Delays are most frequently attributed to the enterprise (8), implementing agency (7), supplier (5), external factors (5), followed by funding (3) and government (2).

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 2011 progress reports (months)	Average duration as per PCRs (months)	Average duration as per 2011 progress reports (months)
Bilateral	3	26.39	35.17	42.62	51.40
UNDP	5	22.33	17.94	53.97	51.76
UNIDO	1	20.27	20.27	46.67	46.67
World Bank	9	25.59	25.48	56.38	56.26
<b>Total</b>	<b>18 (12)</b>	<b>24.52 (12.16)</b>	<b>25.56 (17.43)</b>	<b>52.88 (42.27)</b>	<b>53.91 (49.25)</b>

**(d) Completeness of information**

15. Key information was less regularly provided than last year, for example the list of annual consumption of ODS and substitutes was included in 77.8 per cent of the PCRs, compared to 91.7 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 (22.2 per cent of the PCRs compared to 8.3 per cent in 2011) and the list of operating cost details (38.9 per cent compared to 8.3 per cent in 2011).

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 applicable”*		Not provided	
	Number of projects	Percentage %	Number of projects	Percentage %	Number of projects	Percentage %	Number of projects	Percentage %
List of annual consumption of ODS and substitutes	14	77.8 (91.7)	4	22.2 (8.3)	0	0.0 (0.0)	0	0.0 (0.0)
List of capital equipment	17	94.4 (100.0)	0	0.0 (0.0)	1	5.6 (0.0)	0	0.0 (0.0)
Operating cost details	5	27.8 (16.7)	7	38.9 (8.3)	5	27.8 (75.0)	1	5.6 (0.0)
List of destroyed equipment	10	55.6 (25.0)	2	11.1 (0.0)	4	22.2 (75.0)	2	11.1 (0.0)

\* According to indications of implementing agencies

**(e) Overall assessment and rating**

16. During the reporting period, implementing agencies rated 33.3 per cent of projects as highly satisfactory, which is a decrease from 66.7 per cent in the previous year; 55.6 per cent were rated as satisfactory, compared to 25 per cent in 2011, and 11.1 per cent as less satisfactory compared to 8.3 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	World Bank	UNDP	UNIDO	Total	Percentage of total %
Highly satisfactory	1	3	2		6	33.3 (66.7)
Satisfactory	1	5	3	1	10	55.6 (25.0)
Less satisfactory	1	1			2	11.1 (8.3)
<b>Total</b>	<b>3</b>	<b>9</b>	<b>5</b>	<b>1</b>	<b>18</b>	<b>100.0</b>

### III. Analysis of non-investment project completion reports

#### (a) PCRs received and due

17. Sixteen PCRs were received for non-investment projects, the majority of which are for technical assistance projects implemented mainly by UNDP, UNEP and the World Bank. UNEP has submitted fewer PCRs than in previous years. For bilateral technical assistance projects there are still 21 PCRs due, as well as 5 PCRs on training projects and one PCR for a demonstration project (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

18. Total actual expenditures for all completed non-investment projects with PCRs were reported to be 97 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	Funds disbursed (US \$)	ODP to be phased out (ODP tonnes)	ODP phased out	Average delays (months)
UNDP	8	2,215,000	2,104,982	154.8	154.8	54.40 (31.58)
UNEP	6	1,000,000	987,192	44.2	27.7	25.72 (28.28)
World Bank	2	925,450	907,382	1,090.0	1,090.0	35.52 (0.0)
<b>Total</b>	<b>16</b>	<b>4,140,450</b>	<b>3,999,556</b>	<b>1,289.0</b>	<b>1,272.5</b>	<b>41.28 (30.85)</b>

19. The delays experienced in project implementation continue to show a great deal of variance. Out of 16 non-investment projects, one was completed before scheduled date. Delays were experienced in 15 projects ranging from 12 months to 120 months. In 14 cases, or 87.5 per cent of the projects, delays of more than 12 months occurred. Eight projects reported delays between 37 and 120 months.

20. UNDP shows an increase in average delays (54.4 months compared to 31.58 months last year). The average delay in UNEP's projects decreased from 28.28 to 25.72 months, and delays in the World Bank's projects is 35.52 months. The overall average delay for non-investment projects is 41.28 months beyond the planned completion date, showing an increase compared with 30.85 months in 2011.

21. The difference in ODP phase-out planned and reported as achieved is almost entirely due to one project implemented by UNEP for which the actual ODS phase-out was reported to be less than planned.

22. 12.5 per cent of the projects were marked as "highly satisfactory", which is more than last year (5.6 per cent); 25 per cent were rated as "satisfactory as planned" which is less than last year when this figure was 31 per cent, and 50 per cent as "satisfactory though not as planned" which is less than last year when this figure was 60.6 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 16 non-investment projects reported the assessment as "not applicable".



Table 8

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

<b>Assessment</b>	<b>World Bank</b>	<b>UNDP</b>	<b>UNEP</b>	<b>Total</b>	<b>Percentage of total %</b>
Highly Satisfactory		1	1	2	12.5 (5.6)
Satisfactory or satisfactory and as planned	2	2		4	25.0 (31.0)
Satisfactory though not as planned		3	5	8	50.0 (60.6)
Not Applicable		2		2	12.5 (1.4)
Not provided				0	0.0 (1.4)
<b>Total</b>	<b>2</b>	<b>8</b>	<b>6</b>	<b>16</b>	<b>100.0</b>

**(c) Quality of information received**

23. Most PCRs for non-investment projects contain substantial information and analysis. However, the sections on causes of delays and corrective actions taken are not always provided. Usually enterprise, governmental, agency, external factors and design are given as causes for delays.

24. Furthermore there is no set of standardized indicators for similar activities or for measuring impact. A concise and standardized definition of indicators for outputs and outcomes would facilitate the understanding of problems, reduce the time of drafting reports, improve communication, increase the meaningfulness of reporting, and allow for comparison among various experiences.

25. Comments on draft PCRs have been provided by NOUs for 13 (81.3 per cent) of the 16 reports received, and by the implementing agencies in 14 (87.5 per cent) of the 16 cases. This is a decrease compared to last year when 94.4 per cent of the reports received contained comments from the implementing agencies. NOUs also commented more regularly than last year when they had done so in 74.6 per cent of the reports received.

**IV. Schedule for submission of PCRs in 2013**

26. 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 2011 and takes into account the number of outstanding PCRs as of 16 September 2012. The implementing agencies will, in addition to the above schedule, submit PCRs in 2013 for projects completed during 2012.

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

27. Decision 65/5(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 mid-February 2012. 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, 2004 and 2009 have now been resolved, while this process still continues with the World Bank (for some PCRs received in 2005) (see Table V in Annex I), with several agencies for PCRs received in 2006 (see Table VI in Annex I), the World Bank for PCRs received in 2007 (see Table VII in Annex I), several agencies for PCRs received in 2008 (see Table VIII in Annex I), with several agencies for PCRs received in 2010 (see Table IX in Annex I), and with several agencies for PCRs received in 2011 (see Table X in Annex I).

28. During the reporting period, 13 PCRs were received with incomplete information and 23 with data inconsistencies (see Table XI in Annex I). Regarding PCRs with incomplete information, the number has increased (13 PCRs compared to 11 PCRs last year). The total number of PCRs with data inconsistencies decreased (23 PCRs compared to 48 PCRs last year).

29. 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.

## **VI. Lessons learned**

30. Lessons learned have been reported in a number of PCRs that offer important and useful insights into the various aspects of the project implementation process. They include a variety of reflections on successes and failures of various project implementations. Lessons learned represent a wealth of knowledge on the practical problems involved in project execution and the solutions the different countries have found to cope with them. While the edited texts of such lessons reported are contained in Annex II, a select number are summarized below under different headings. The full list from the PCR database is available on request, including those reported in PCRs received after the cut off date of 15 September 2012. This is also to be found on the intranet of the Fund Secretariat in the evaluation section under PCRs.

### Lessons learned from the implementation of demonstration projects

31. A methyl bromide project in Mexico pointed out that following the completion of the project, results, analysis and reports should include an evaluation of economic and financial aspects of the demonstration project. This would provide companies with information to help them prepare for the upcoming methyl bromide ban. This lesson is valid for any type of demonstration project.

### Lessons learned from the implementation of investment projects

32. Close cooperation between the NOU and the enterprise is vital for a smooth implementation. A legal framework put in place during the lifetime of the project will motivate the company to a faster execution of project activities.

33. Coordination between the beneficiary company, the NOU and the implementing agency is vital for successful project implementation. For projects with activities related to product development, some delays can appear while the project is implemented, so longer development time should be taken into consideration when preparing the project.

34. Cultural and socio-economic factors play an important role in project implementation and should not be ignored. In China it has been noticed that language can be a barrier for the effectiveness of project implementation when dealing with small enterprises.

35. The PCR for a project in Tunisia on conversion to LCD technology notes that while understanding that LCD technology is a viable alternative technology to ozone-depleting substances, it is difficult to apply and may not be appropriate to all economic environments.

36. Reports also enumerate possible causes of delays in investment projects. Among these:
- Innovative processes can last longer any time there is a need to search for an innovative alternative. In addition, unfortunately, these innovative alternatives are not well documented or technical expertise to carry out the process conversion is scarce;
  - Changes in ownership can lead to changes in priorities and investment resources destination, which can result in project implementation delays and, in worst case scenarios, cancellation due to incompatibility with the new owners. The adoption of binding mechanisms during project implementation between the parties can help avoid this situation.

#### Lessons learned related to technical assistance projects

37. A pilot project report in Mexico recommends that optimization process should take place in two stages: firstly in laboratory scale with the system house; and secondly in selected end-users plant within their commercial lines and the industry environment.

38. Many issues are related to the implementation of regional projects. This is important to consider because regional projects are common to various sectors. Among the issues mentioned:

- (a) This type of project may undergo a slow communication flow because not all countries have easy access to internet and telecommunications;
- (b) Accuracy of data collected remains problematic. In the Democratic Republic of the Congo, for example, the project conducted a national survey and did not identify any methyl bromide uses. Nevertheless, neighboring countries reported that most of the illegal methyl bromide imports come from the Democratic Republic of the Congo;
- (c) The regional approach and the large number of countries involved required a very intense follow up at all stages of implementation which can be time and human resources consuming;
- (d) In order to reinforce the ownership feeling of the participants, each country received its own contract to undertake some activities. This approach brought about important follow-up and administrative work (several extensions and modifications of contracts required in the course of the project). In other cases it had been observed that because of the small funding some countries did not really commit to the project;
- (e) Various local needs at the NOU level slowed down the process of implementation;
- (f) The reports stress the positive points of the regional projects;
- (g) Better interaction among countries;
- (h) Easier identification of national experts;
- (i) The projects could use documents already finalized to explain what exactly needed to be done in countries with similar situations;
- (j) Regional projects contributed to the understanding of various issues (the example is related to methyl bromide projects);

- (k) An improvement of data collection process has been noted and better understanding of data to be collected;
- (l) The regional approach helped centralizing the information and this has been of some benefit (i.e. facilitate concrete exchange of information among some countries and to organize cross-countries meetings with customs officers);
- (m) It facilitated continuous networking is very important for any successful outcome.

39. A series of PCRs on halon projects pointed out various issues related to project implementation. In Indonesia one of the key issues was how to address the problems encountered in the many islands of the country that had scattered users of halons. Originally, the project proposal had planned on the purchase of simple halon recovery units. However, it was found more effective to return the cylinders to the main center and instead train companies to handle halon in cylinders and ship them to Jakarta. This resulted in additional cylinders and needed storage area at the recycling center.

40. In Turkey, the ownership of the halon bank by an industrial organization (Ankara Chamber of Industry-ASO) which has good linkages to the industry and expertise in providing services such as laboratory tests and measurement was critical to the project's success. As halon banking operations were not financially sustainable as is the case in most countries, ownership of the bank by an industry organization (ASO) which also provided in kind contributions is essential for the bank's success and sustainability.

41. In Sri Lanka the PCR concluded that workshops for capacity building to cover remaining halon users and key stakeholders are needed.

Lessons learned related to training projects

42. Several PCRs for projects implemented in China stressed the importance of training at various levels of governmental departments and pointed out the necessity of continuing such activity.

43. Lessons learned can be further summarized in a check list for easy reference:

**CHECK LIST OF LESSONS LEARNED**

• Initial sessions that should include all stakeholders to share and discuss objectives, strategies and alternatives.
• It is important to provide decision makers not only with information on technical economic and environmental feasibility but also with financial analysis.
• A legal framework created during the lifetime of the project will motivate the company to a faster execution of project activities.
• Good communication and understanding between the implementing agency experts, NOU and the company is important to secure knowledge transfer to create capacity building and a fast project implementation.
• Knowledge of procurement and hiring procedures and norms in the NOU helps facilitate all project activities.
• Having experts with proficiency in the local language is useful, especially when dealing with small companies.
• Some technologies (LCD technology, for example) may not be always the best choice for the developing country context.

<ul style="list-style-type: none"> <li>• There is need for an increased flexibility in project implementation. Starting at the project design stage, enterprises should be given more licenses to factor in different technology choices to ensure that product quality remains the same across the spectrum of products.</li> </ul>
<ul style="list-style-type: none"> <li>• There is need to have a continuous search for alternative methods. Thus these types of projects should have a budget line to conduct further tests with the newly developed alternative technologies as they emerge.</li> </ul>
<ul style="list-style-type: none"> <li>• Innovative processes may cause delays in project implementation.</li> </ul>
<ul style="list-style-type: none"> <li>• Regional projects may undergo a slow communication flow because not all countries have easy access to internet and telecommunications.</li> </ul>
<ul style="list-style-type: none"> <li>• Regional projects often required a very intense follow up at all stages of implementation which can be time and human resources consuming.</li> </ul>
<ul style="list-style-type: none"> <li>• Some incentive may be needed at the country level such as a country-based contract for specific activities but this may lead to additional administrative work.</li> </ul>
<ul style="list-style-type: none"> <li>• Ownership of a halon bank by an industry organization which also provided in kind contributions is essential for the bank's success and sustainability.</li> </ul>
<ul style="list-style-type: none"> <li>• There is need for tailor made awareness programmes for specific Government departments that may use the substances (here halons) for a longer period.</li> </ul>

## VII. Action expected from the Executive Committee

44. The Executive Committee might wish to consider:

- (a) Taking note of the 2012 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 2013, 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 2013, the information still missing in a number of PCRs;
  - (iii) To clear by the end of January 2013 the backlog of PCRs on projects completed before the end of 2006;
- (c) 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.

-----

**Annex I**  
**STATISTICS**

Table I

**SCHEDULE FOR PLANNED SUBMISSION OF PCRS IN 2012 AND ACTUAL DELIVERY**

	Schedule	Sector	Investment PCRs		Non-Investment PCRs	
			Schedule	Received	Schedule	Received
<b>UNDP</b>	February 2012					1DEM
	June 2012					1TAS
	August 2012			2ARS, 1FOA, 1PAG		3DEM, 2TAS
	September 2012		1	1PAG	8	1TAS
	<b>Total</b>		<b>1</b>	<b>5</b>	<b>8</b>	<b>8</b>
<b>Status at September 16, 2012</b>				<b>+4</b>		<b>0</b>
	Schedule	Sector	Investment PCRs		Non-Investment PCRs	
			Schedule	Received	Schedule	Received
<b>UNEP</b>	November	Technical assistance			1	
		RMP			2	
	February	Technical Assistance			7	1
		RMP			11	
		ODS			1	
	March	Training			1	4
		Technical Assistance				1
	May	RMP			13	
		TAS			5	
		Training			1	
July	RMP			15		
<b>Total</b>				<b>57</b>	<b>6</b>	
<b>Status at September 16, 2012</b>						<b>-17</b>
	Schedule	Sector	Investment PCRs		Non-Investment PCRs	
			Schedule	Received	Schedule	Received
<b>UNIDO</b>	July 2012			1ARS		
	December 2012	Fumigant (2) Aerosol (1)	3			
	<b>Total</b>		<b>3</b>	<b>1</b>		
<b>Status at September 16, 2012</b>				<b>N/A</b>		
	Schedule	Sector	Investment PCRs		Non-Investment PCRs	
			Schedule	Received	Schedule	Received
<b>World Bank*</b>	December 2011			1ARS, 1HAL, 2FUM, 1REF, 3FOA, 1STE		2TAS
	February 2012	Aerosol (1) Methyl Bromide (1)	0		2	
	March 2012	Phaseout Plan (1) Aerosol (2) Solvents (1) Refrigeration (1)	5		0	
	June 2012	Halon (3)	1		2	
	<b>Total</b>		<b>6</b>	<b>9</b>	<b>4</b>	<b>2</b>
<b>Status at September 16, 2012</b>				<b>+3</b>		<b>-2</b>

\* Table includes expected PCRs for projects completed up through December 2010 with outstanding PCRs (23 total) *minus* PCRs that will be submitted by 31 December 2011 (expected 13). The World Bank will, in addition to the above schedule, be submitting PCRs in CY2012 for projects completed through 2011 and up to 30 June 2012.

Table II

**PCRS FOR INVESTMENT PROJECTS RECEIVED AND DUE BY IMPLEMENTING AGENCY, SECTOR AND YEAR  
(FOR PROJECTS COMPLETED UNTIL THE END OF 2011)**

Agency	Sector	PCR(s) Received in:															PCR(s) Due in <sup>1</sup>									
		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total	2004	2005	2007	2008	2009	2010	2011	2012	Total
UNDP	Aerosol	1	-	9	4	11	-	-	4	3	5	2	-	-	-	1	40	-	-	-	-	-	-	-	1	1
	Foam	20	34	79	83	117	87	82	77	7	21	7	3	-	1	1	619	-	-	-	-	-	-	-	-	-
	Fumigant	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3	-	-	-	-	-	-	-	-	-
	Halon	-	-	3	13	-	1	-	1	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-
	Phase-Out Plan	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
	Process Agent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
	Refrigeration	1	22	2	33	9	22	39	42	1	4	3	1	-	-	-	179	-	-	-	-	-	1	-	-	1
	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>6</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>887</b>	-	-	-	-	-	1	-	1	2	
UNIDO	Aerosol	6	6	10	6	4	2	-	7	-	1	-	-	-	1	1	44	-	-	-	-	-	-	-	-	-
	Foam	8	22	3	22	11	15	11	14	8	2	1	1	-	-	-	118	-	-	-	-	-	-	-	-	-
	Fumigant	-	-	-	-	2	1	-	1	-	6	1	6	3	2	-	22	-	-	-	-	-	-	-	-	-
	Halon	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Process Agent	-	-	-	-	1	3	2	4	-	-	-	2	1	-	-	13	-	-	-	-	-	-	-	-	-
	Refrigeration	12	25	11	32	14	22	24	34	7	4	-	1	-	-	-	186	-	-	-	-	-	-	-	-	-
	Solvent	5	13	5	3	3	5	5	4	9	-	1	-	1	-	-	54	-	-	-	-	-	-	-	-	-
	<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>10</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>438</b>	-	-	-	-	-	-	-	-	-
World Bank	Aerosol	4	6	6	-	1	-	2	5	2	-	-	-	1	-	27	-	2	-	-	-	-	-	-	-	2
	Foam	18	25	38	20	20	18	8	26	12	6	6	-	-	3	-	200	-	-	-	-	-	-	-	-	-
	Fumigant	-	-	-	-	-	-	-	-	1	-	-	-	-	2	-	3	-	-	-	-	-	-	-	-	-
	Halon	2	1	1	-	-	-	-	-	-	-	-	-	-	1	-	5	1	-	-	-	-	-	1	-	2
	Multiple Sectors	1	-	1	-	-	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
	Others	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
	Phase-Out Plan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	1	-	-	1
	Process Agent	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
	Production	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Refrigeration	18	24	22	26	15	16	12	21	9	7	1	-	1	1	-	173	-	1	-	-	-	-	-	-	1
	Solvent	15	4	3	1	-	-	-	3	-	1	-	-	-	-	-	27	1	-	-	-	-	-	-	-	1
Sterilant	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	
<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>1</b>	<b>9</b>	-	<b>446</b>	<b>2</b>	<b>3</b>	-	-	-	<b>1</b>	<b>1</b>	-	<b>7</b>	
Bilateral	Aerosol	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
	Foam	-	-	3	2	2	2	-	5	6	6	1	1	-	-	-	28	-	-	-	-	-	-	-	-	-
	Fumigant	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	2	-	-	-	-	1	-	-	1	2
	Halon	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Phase-Out Plan	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-
	Refrigeration	-	1	1	-	-	-	-	2	5	-	2	-	-	-	-	11	-	1	1	1	-	-	-	-	3
	Solvent	-	-	-	-	-	-	-	-	-	-	1	1	1	-	2	5	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	<b>1</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>2</b>	-	<b>7</b>	<b>11</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>1</b>	-	<b>2</b>	<b>49</b>	-	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	-	-	<b>1</b>	<b>5</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>28</b>	<b>19</b>	<b>8</b>	<b>13</b>	<b>6</b>	<b>1820</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>14</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 2011)**

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	2010	2011	2012	Total	Before 1997	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
UNDP	Demonstration	-	-	5	-	-	6	1	2	-	-	-	-	-	3	3	20	-	-	-	-	-	-	-	-	-	-	-	1	-	1
	Technical Assistance	-	6	39	17	7	5	1	15	8	21	29	27	12	12	4	203	-	-	-	-	-	-	-	-	-	1	-	4	5	
	Training	-	18	6	-	-	-	-	-	-	-	4	-	-	-	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<b>Total</b>	<b>-</b>	<b>24</b>	<b>50</b>	<b>17</b>	<b>7</b>	<b>11</b>	<b>2</b>	<b>17</b>	<b>8</b>	<b>21</b>	<b>33</b>	<b>27</b>	<b>12</b>	<b>15</b>	<b>7</b>	<b>251</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>1</b>	<b>4</b>	<b>6</b>
UNEP	Technical Assistance	9	53	3	18	22	18	5	6	1	7	7	8	9	17	2	185	-	1	1	1	1	1	1	4	1	13	10	10	5	49
	Training	8	34	1	2	21	15	20	10	5	4	7	25	5	9	4	170	-	-	-	-	-	1	-	1	2	6	3	2	2	17
	<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>33</b>	<b>14</b>	<b>26</b>	<b>6</b>	<b>355</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>3</b>	<b>19</b>	<b>13</b>	<b>12</b>	<b>7</b>	<b>66</b>
UNIDO	Demonstration	-	-	-	6	7	3	3	3	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Technical Assistance	-	6	8	-	4	1	3	4	3	15	9	6	2	3	-	64	-	-	-	-	-	-	-	-	-	-	-	-		
	Training	-	1	1	-	5	6	7	1	-	1	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<b>Total</b>	<b>-</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>6</b>	<b>2</b>	<b>3</b>	<b>-</b>	<b>108</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
World Bank	Demonstration	1	-	-	-	-	-	-	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
	Technical Assistance	5	4	6	-	1	-	2	1	1	1	2	-	-	-	2	25	-	-	-	-	-	-	-	-	-	1	-	4	-	5
	Training	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<b>Total</b>	<b>6</b>	<b>7</b>	<b>6</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>30</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>-</b>	<b>4</b>	<b>1</b>	<b>6</b>
Bilateral	Demonstration	5	5	12	-	3	1	1	-	2	-	-	1	-	-	30	-	-	-	-	-	-	-	-	-	-	-	1	-	1	
	Technical Assistance	-	-	13	1	1	9	14	15	8	5	15	7	13	19	-	120	1	-	1	-	-	1	-	-	1	1	2	10	4	21
	Training	1	3	19	1	9	6	5	6	6	2	2	-	2	-	62	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>8</b>	<b>15</b>	<b>19</b>	<b>-</b>	<b>212</b>	<b>2</b>	<b>-</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>11</b>	<b>4</b>	<b>27</b>
<b>Grand Total</b>	<b>29</b>	<b>133</b>	<b>113</b>	<b>45</b>	<b>80</b>	<b>70</b>	<b>62</b>	<b>63</b>	<b>34</b>	<b>57</b>	<b>75</b>	<b>74</b>	<b>43</b>	<b>63</b>	<b>15</b>	<b>956</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>23</b>	<b>16</b>	<b>28</b>	<b>16</b>	<b>105</b>	

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



Table IV

**SCHEDULE FOR SUBMISSION OF OUTSTANDING PCRS IN 2013  
(FOR PROJECTS COMPLETED UNTIL 31 DECEMBER 2011)**

<b>UNDP</b>	<b>Schedule</b>	<b>Sector</b>	<b>Investment PCRs</b>	<b>Non-Investment PCRs</b>
	September	ARS REF	2	6
	<b>Total</b>		<b>2</b>	<b>6</b>
<b>Total PCRs due as of 16 September 2012</b>			<b>2</b>	<b>6</b>
<b>UNEP</b>	<b>Schedule</b>	<b>Sector</b>	<b>Investment PCRs</b>	<b>Non-Investment PCRs</b>
	January	REF		15
		SEV		3
	April	PHA		1
		REF		15
		SEV		4
	July	HAL		1
		REF		18
		SEV		3
		ARS		5
	PHA		1	
<b>Total</b>			<b>66</b>	
<b>Total PCRs due as of 16 September 2012</b>			<b>N/A</b>	<b>66</b>
<b>UNIDO</b>	<b>Schedule</b>	<b>Sector</b>	<b>Investment PCRs</b>	<b>Non-Investment PCRs</b>
	January	SOL		1
	June	REF	1	
	September	REF	1	
<b>Total</b>		<b>2</b>	<b>1</b>	
<b>Total PCRs due as of 16 September 2012</b>			<b>N/A</b>	<b>N/A</b>
<b>World Bank</b>	<b>Schedule</b>	<b>Sector</b>	<b>Investment PCRs</b>	<b>Non-Investment PCRs</b>
	February	Methyl bromide		1
	July	Halon	1	
		Foam		1
<b>Total</b>		<b>1</b>	<b>1</b>	
<b>Total PCRs due as of 16 September 2012</b>			<b>7</b>	<b>6</b>

Table V

**SUMMARY OF PCRs RECEIVED IN 2005 WITH DATA PROBLEMS  
(As of 5 November 2012)**

	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	33			32	32	11	10	79	78
<b>Solved as % of Total</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>				<b>100%</b>		<b>91%</b>		<b>99%</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	23	3	3			27	26	58	57
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>73</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>52</b>	<b>50</b>	<b>151</b>	<b>149</b>
<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>96%</b>		<b>99%</b>

Table VI

**SUMMARY OF PCRs RECEIVED IN 2006 WITH DATA PROBLEMS  
(As of 5 November 2012)**

	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
Incomplete Information	1	1	1	1	2		8	8					5	5	1	1	9	9	35	16	62	41
Solved as % of Total		100%		100%		0%		100%		N/A		N/A		100%		100%		100%		46%		66%
<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>	
Solved as % of Total		100%		100%		0%		100%		100%		0%		N/A		100%		100%		24%		49%

Table VII

**SUMMARY OF PCRs RECEIVED IN 2007 WITH DATA PROBLEMS  
(As of 5 November 2012)**

	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		2	1
Planned Date of Completion									1	1			1		2	1
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 VIII

**SUMMARY OF PCRs RECEIVED IN 2008 WITH DATA PROBLEMS  
(As of 5 November 2012)**

	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	17	1	1	4	4	3		27	24
<b>Solved as % of Total</b>		100%		100%						100%		100%		100%		0%		89%
<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 IX

**SUMMARY OF PCRs RECEIVED IN 2010 WITH DATA PROBLEMS  
(As of 5 November 2012)**

	Canada		Finland		France		Germany		Sweden		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	Problems with PCRs	Problems with PCRs Solved
<b>Incomplete Information</b>			1				3	3			5	5			3	3	12	11
<b>Solved as % of Total</b>				<b>0%</b>				<b>100%</b>				<b>100%</b>				<b>100%</b>		<b>92%</b>
<b>Data Inconsistencies</b>																		
Date Approved							1	1			1	1					2	2
Planned Date of Completion											3	3					3	3
Revised Planned Date of Completion	1	1					3	3	1	1	3	3	1	1	2	2	11	11
Date Completed							1	1			4	4					5	5
ODP To Be Phased Out					1		7	7			2	2					10	9
ODP Phased Out							4	4			4	4	1	1	3	3	12	12
Funds Approved													1	1			1	1
Funds Disbursed													5	5			5	5
	<b>1</b>	<b>1</b>			<b>1</b>	<b>0</b>	<b>16</b>	<b>16</b>	<b>1</b>	<b>1</b>	<b>17</b>	<b>17</b>	<b>8</b>	<b>8</b>	<b>5</b>	<b>5</b>	<b>49</b>	<b>48</b>
<b>Solved as % of Total</b>		<b>100%</b>				<b>0%</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>		<b>100%</b>		<b>98%</b>

Table X

**SUMMARY OF PCRs RECEIVED IN 2011 WITH DATA PROBLEMS  
(As of 5 November 2012)**

	Australia		Canada		Sweden		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
<b>Incomplete Information</b>	1						7	7	2	2	1	1	11	10
<b>Solved as % of Total</b>								100%		100%		100%		91%
<b>Data Inconsistencies</b>														
Date Approved									1	1	1	1	2	2
Planned Date of Completion	1												1	0
Revised Planned Date of Completion	1		1		3		10	10	4	4	1	1	20	15
Date Completed	1				2		3	3			3	3	9	6
ODP To Be Phased Out	1				1		2	2	1	1			5	3
ODP Phased Out							5	5	1	1			6	6
Funds Approved	1				1								2	0
Funds Disbursed					2						1	1	3	1
	5	0	1	0	9	0	20	20	7	7	6	6	48	33
<b>Solved as % of Total</b>		0%		0%		0%		100%		100%		100%		69%

Table XI

**SUMMARY OF PCRs RECEIVED IN 2012 WITH DATA PROBLEMS  
(As of 5 November 2012)**

	France		Italy		UNDP		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
<b>Incomplete Information</b>	1				7	7	5		13	7
<b>Solved as % of Total</b>		<b>0%</b>				<b>100%</b>		<b>0%</b>		<b>54%</b>
<b>Data Inconsistencies</b>										
Revised Planned Date of Completion			1		4	4	2		7	4
Date Completed	1		2		3	3	1		7	3
ODP To Be Phased Out	1				1	1	3		5	1
ODP Phased Out	1				2	2	1		4	2
	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>0</b>	<b>23</b>	<b>10</b>
<b>Solved as % of Total</b>		<b>0%</b>		<b>0%</b>		<b>100%</b>		<b>0%</b>		<b>43%</b>



## Annex II

### LESSONS LEARNED REPORTED IN PROJECT COMPLETION REPORTS

#### A. INVESTMENT PROJECTS

- (a) Phase-out of CTC as process agent in two applications at Braskem in Brazil:
  - (i) Problems related to the temperature set up occurred during the resetting of the incinerator, which took almost 40 days to be solved. Correction procedures were made and the incinerator could meet the required performance. In this sense, a contention plan with a risk log for potential interventions measures could be prepared to minimize any stop overs during the process (BRA/PAG/54/INV/281);
- (b) Replacement of CFC-12 refrigerant with HCFC-22 in the manufacture of small and medium open compressors at five enterprises (Dalian No.2, Shanghai Minhang, Zhejiang Beifeng, Zhejiang Chunlian, Zhejiang Yuhuan) in China:
  - (i) A reasonable and integrated feasibility study is key for the smooth implementation of the project. During project implementation, it was discovered several times that necessary equipment, not included in the feasibility study stage, caused delay and inconvenience for implementation;
  - (ii) Sufficient funding must be guaranteed for every step of project implementation. As it was noticed later during project implementation, some necessary equipment was omitted in the initial estimate, and the companies had to spend more than the originally planned budget and counterpart funding increased;
  - (iii) Timely and periodic supervision of relevant project stakeholders would ensure that the project proceeds within the scheduled timeframe as much as possible. Cooperation between enterprise and equipment and technology suppliers is crucial;
  - (iv) Efficient and timely communication between the international implementing agency, national implementing agency and the beneficiary companies are of great necessity to address problems;
  - (v) The CFC phase-out was counted at the compressor manufacturer level which was facilitated under this sector plan (CPR/REF/36/INV/389);
- (c) Umbrella projects for terminal phase-out of ODS in the solvent sector (first phase) (DRC/SOL/51/INV/25) and (second phase) (DRC/SOL/56/INV/28) in the Democratic Republic of the Congo:
  - (i) Visits of the implementing agency to the project site for all stakeholders are also an important aspect for the successful and smoothly implementation of the projects;

- (ii) Monitoring and benchmarking project implementation to ensure a prompt return to compliance and ensuring that corrective action is taken where necessary is an important ingredient in the successful implementation of the projects;
- (d) National CFC phase-out plan: 2005 annual implementation programme in the Islamic Republic of Iran:
  - (i) A major issue after two rounds of training remains the fact the recycling requires enforcement through the government system. The provisional ozone officers are very motivated and do really a good job in monitoring the use. However, they mostly work on their own and physically it is impossible to cover all the country since the Islamic Republic of Iran is a huge country. Therefore, it is realistic to believe that such programme will always have some failure rate, which is also confirmed by experiences in Europe, like Germany, France and the Netherlands. Taking into account these facts, the project has been quite successful and the responsible very motivated. There is rarely another country where such intensive monitoring and training has taken place. The provision of training onsite during commissioning was a very good thing to do. The contact between the ozone officers and the supplier representative is well established (IRA/PHA/45/INV/171);
- (e) Terminal halon-1211 and halon-1301 phase-out umbrella project for fire equipment manufacturers and suppliers in Jordan converting to ABC powder, CO<sub>2</sub>, HFC-227ea and inert gases as substitutes:
  - (i) Due to the nature of the project which involved a number of small enterprises, the easiest way for implementation was through provision of allocations for small similar packages of equipment (including CO<sub>2</sub> filling equipment and tools) (JOR/HAL/32/INV/69);
- (f) Phase-out of CFC consumption in the manufacture of aerosol metered-dose inhalers (MDIs) in Mexico:
  - (i) Reformulating CFC MDIs to use HFA-134a was a complex and resource intensive effort with significant outcomes and substantial challenges for patients, policymakers, MDI companies, and the medical community. International organization as UNIDO played an important catalytic role on strategy level, supporting the transition to non-CFC based MDIs under the Montreal Protocol in the particular region and coordinating the diffusion of best practices;
  - (ii) Involvement of the National Ozone Unit (NOU) in the project implementation was essential. NOU staff plays an important role in successful project implementation;
  - (iii) The workshop on the “Transition to CFC-Free Metered Dose Inhalers (MDI) Products” in Mexico organized by UNIDO and NOU was very useful for the Salus company to become confident in using HFC-134a in MDI manufacturing. In addition, the visit to the company provided benefit to the company by giving opportunity to see the new equipment and the trend in the MDI manufacturing industry worldwide. This kind of activity is to be continued;
  - (iv) The project was a shining example of international cooperation between the governmental bodies (Ministries of Environment and Health of Mexico), United

Nations Industrial Development Organization as implementing agency of the project and industry as equipment and technology provider (MEX/ARS/53/INV/135);

- (g) Phase-out of the use of CFCs in remaining foam enterprises in Pakistan: Pakistan Insulation, Simpson Wire, HEPCO, Indus Plastic, Workman and Thermocraft Engineering:
  - (i) Through several months, and in one case several years of consultation in regards to alternative technologies with NBP and the World Bank consultants, group enterprises were able to choose technologies with which they felt relatively comfortable (in terms of capacity and cost) (PAK/FOA/41/INV/58);
- (h) Phase-out of CFC-11 by conversion to liquid carbon dioxide technology in the manufacture of flexible polyurethane foam at Supermousse in Tunisia:
  - (i) The technology chosen by the enterprise represents the trade-offs that must be made by industry when ceasing to use CFC. Although the technology is environmentally friendly and will lower Supermousse's long-term operating costs, LCD technology is problematic in terms of product quality for certain foam densities. From the project design stage, enterprises should be given more licenses to factor in different technology choices to ensure that product quality remains the same across the spectrum of products. In this case, the enterprise had to contribute additional resources for the use of MC (ventilation, etc.) (TUN/FOA/26/INV/33);
- (i) Phase-out of methyl bromide (MB) in the dried fig sector in Turkey:
  - (i) Lessons learned in relation to technical issues: There is a need to have a continuous search for alternative methods. Thus these types of projects should have a budget line to conduct further tests with the newly developed alternative technologies as they emerge;
  - (ii) Lessons learned in relation to outside cooperation: 1) Establishing a network between the implementing agency (TARIS) and other dried fig processing companies allows them to directly exchange their experiences. 2) Foreign companies with high technology know-how (eg. lids of the high pressure tanks) must collaborate with the local manufacturers to lower the cost of investment and produce the equipment locally; 3) Lessons learned in relation to Executive Committee Policy, Executing Agency (TARIS) Performance and Government Support: a. Having an explanatory training period for all those involved in the project implementation at the onset of the project can help to build closer links and better understanding among the counterparts; b. Closer links between the NOU and the executing agency and the stakeholders in the sector can speed up the phase-out process especially in developing countries (TUR/FUM/31/INV/69).

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

- (a) Policy training for local authorities (3<sup>rd</sup> tranche) in China:
  - (i) The conducted training programme workshops, ODS regulations and awareness campaign for ESB and customs enforcement officers led the Government of China in meeting its compliance commitments and achieving their ODS phase-out;
  - (ii) The need of additional training programme to cover all customs checkpoints along the border in the Government of Urumchi in Xinjiang autonomous region in October 2010 ensure that they are understand on monitoring and controlling of ODS;
  - (iii) The need of additional training programme to cover remaining customs and enforcement officers;
  - (iv) The need of more awareness programmes should be implemented on ODS to the public sector and other Government departments;
  - (v) Strengthening cooperation between concerned Government departments, especially between local ESB and customs, and other institutions related to ODS for sustainable implementation is essential in phasing out of ODS;
  - (vi) Limited cooperation on combating illegal ODS between local ESB and customs is an issue. Their first attempt to collaborate was in 2010; there are still many obstacles before the two departments cooperation can be made more permanent and self-sustaining. The government is concerned that the momenta for the collaboration may be lost after the closure of this project (CPR/SEV/43/TRA/413);
- (b) Technical assistance project to install alternatives, achieve compliance and phase-out MB in Fiji:
  - (i) Close coordination with relevant Ministries for monitoring activities are effective strategy for the timely submission of data and reports;
  - (ii) Awareness campaign including TV ads and other media advertisements and publishing are very effective awareness-raising strategy;
  - (iii) To study weather patterns of locations before commissioning any project which deals with solar or any other aspects of the weather;
  - (iv) Knowing your audience and level of competency of individuals for any training; and
  - (v) Continuous networking is very important for any successful outcome (FIJ/FUM/47/TAS/17);
- (c) Global – Develop materials to educate children on ozone layer protection:
  - (i) The project was very challenging as the programme did not have previous experience in developing videos for children. The output had simple messages to

all target audiences and the NOUs felt that it was important to translate the video into local languages and broadcast through national and commercial television stations in 70 countries (GLO/SEV/30/TAS/210);

- (d) Implementation of the refrigerant management plan update: technical assistance programme for the promotion of good practices and recovery and recycling in Honduras:
  - (i) While the initial spares for the previous phase of the recovery and recycling were obtained rather quickly, delays at critical points in time were encountered after that. When this happens, more flexibility for a total re-design of a project may be useful in future in order to ensure success (HON/REF/44/TAS/15);
- (e) Alternatives to MB for structural fumigation in Mexico:
  - (i) One of the lessons learned through the project is the importance of initial sessions in order to share and discuss objectives, strategies and alternatives to MB, as well as to raise the interest of MB users in participating in demonstration projects;
  - (ii) Such enterprises/technicians need to be involved from the very beginning in order to facilitate the application and ongoing use of alternatives to MB fumigation;
  - (iii) When soliciting the participation of private companies in a demonstration project of this nature, it is important to provide decision-makers not only with information on technical economic and environmental feasibility, but also a financial analysis. This aspect had not been initially integrated in the documentation presented to companies to support their decision-making process and was underlined by some as a problem. Likewise, following the completion of the demonstration project, the results analysis and reports should include an evaluation of economic and financial aspects of the demonstration project so as to provide the best information possible to companies to help them prepare adequately for the upcoming MB ban (MEX/FUM/26/DEM/86);
- (f) Alternatives to MB for eradication of tea nematodes in Sri Lanka:
  - (i) The project showed successful adoption of effective, practicable and economically feasible alternatives to MB as: 1) Organic amendments; 2) Chemical nematicides; 3) Biological control; 4) Screening of tea clones; 5) Soil substitutes; and 6) Intergrated pest management (IPM);
  - (ii) Demonstration sites that can accessible by planters and other stakeholders allowed them to learn how to use the new techniques. IPM training and implementation tools and documentation were formulated on how to use the alternatives. Choosing alternatives in keeping with the local availability of different materials have been useful. Use of alternatives in nurseries or in the field and practical demonstration contributed to the success of the project;
  - (iii) In summary some of the successful highlights are: 1) Choosing alternatives in keeping with the local availability; 2) Designing sites and setting up of controls to compare and contrast with the treatment; 3) Record keeping and analysis; 4) Staff training of technical assistances, extension officers and research assistants; 5) An international workshop to bring together planters and other

users and investigators for tea production to discuss alternatives; 6) Evaluation of alternatives for both nursery and field uses; 7) Testing of tea clones; 8) Put in place exhibition sites; and 9) Awareness programmes including extension campaigns, workshops, field day programmes to educate commercial nursery holders, tea smallholders, senior and middle level management staff and nursery staff (SRL/FUM/27/DEM/13);

- (g) Validation of the use of HFO-1234ze as blowing agent in the manufacture of extruded polystyrene foam board stock (phase I) in Turkey:
- (i) HFO-1234ze shows very good insulation parameters as reported in the technology report and is a promising technology; however, in order to receive acceptable physical properties of the resulting foam product, it requires use with an additional blowing agent such as in this case was DME component which is flammable. Safety precautions and investments are required in-house. Trials with other co-blowing agents were not planned originally and have not been carried out;
  - (ii) The impact of existing extruders (production equipment) has not been tested due to limited resources and expensive trials. To complete the tests supplementary funds would be required to the scale of US\$ 150,000 which includes retrofit of extruders (not included in the original project's budget) to optimize solubility (improve insulation) and end product quality;
  - (iii) Busy production seasons do not allow carrying out frequent trials as required by the project plan. The gap between two trials in the project was 8 months (TUR/FOA/60/DEM/9).

-----