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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Fiftieth Meeting
New Delhi, 6-10 November 2006

2006 CONSOLIDATED PROJECT COMPLETION REPORT

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I. 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 (PCR) received during the reporting period, i.e. since its 47th meeting in November 2005. The total number of PCRs received for investment projects in the year 2006 decreased to 73 (compared to 282 in 2005) while the total number of PCRs still due for completed investment projects has decreased from 92 to 86. For non-investment projects, the number of PCRs received in 2006 decreased from 65 to 38, while the number of outstanding PCRs increased from 62 to 63.

2. The 73 PCRs submitted for investment projects were reviewed with respect to phase-out achieved, implementation delays, completeness of information and data consistency, overall assessment and lessons learnt. A number of interesting lessons were reported. They are partly technical but refer mostly to management issues of project preparation and implementation. The most useful ones are presented in Annex II-A.

3. Most of the 38 PCRs on non-investment projects contain substantial information and analysis. Lessons learned referred in particular to the implementation of RMPs, highlighting the particular difficulties in working with small and medium-sized enterprises in the servicing sector. There are also several references to umbrella projects which, according to the lessons learned reported, need to be of a more homogenous nature and should preferably consist of a limited number of companies if they are to be implemented without major complications and resulting delays. A list of selected lessons learned is reproduced in Annex II-B.

4. The terminal reports submitted for the extension of institutional strengthening projects (IS) show uneven quality and completeness. While some provide full information and assessment, many do not, which makes it difficult to determine the results achieved during the previous IS phase. There are often inconsistencies in reporting progress, and lessons learned are not linked to the new tasks for the following year. The agencies are encouraged to improve their quality control over the IS reporting.

5. For the first time, and in accordance with Decision 48/12, lessons learned during the implementation of multi-year agreements are presented in this document. They were received from UNDP, UNIDO and the World Bank as well as the Regional Office for Asia and Pacific of UNEP. These lessons learned were not yet included in the progress reports of annual implementation programmes, as foreseen in Decision 48/12, but were prepared by implementing agencies on request by the Senior Monitoring and Evaluation Officer. Extracts are presented in Annex II-C.

6. No decision is required by the Executive Committee on these lessons learned as they do not concern issues which have not yet been addressed by the Executive Committee. Nevertheless, they provide interesting reading for all those preparing and implementing projects in the implementing and bilateral agencies, financial intermediaries, PMUs as well as national ozone units. Regional network meetings could be a useful forum for discussing lessons learned regarding the implementation of projects and multi-year agreements in the regions. The Fund Secretariat also takes them into account for the review of projects and phase-out agreements.

7. The suggested decision at the end of the document concerns the schedule for next year's submission of PCRs by the agencies, further improvements in data consistency and the provision of missing information.

II. Introduction

8. The purpose of this report is to provide the Executive Committee with an overview of the results reported in the project completion reports (PCR) received during the reporting period, i.e. since its 47th meeting in November 2005. The draft report was sent to the implementing agencies as well as bilateral agencies. Comments received were taken into account when finalizing the report as were the numbers of PCRs scheduled for submission by the agencies for 2007 (see Table IV in Annex I).

9. At its 48th meeting, the Executive Committee decided to request the agencies to include lessons learned in the progress reports of annual implementation programmes, given that multi-year projects were currently the main modalities for project implementation. It also requested the Senior Monitoring and Evaluation Officer to include such lessons learned in the consolidated project completion report in addition to those reported in project completion reports (Decision 48/12). A selection of the lessons learned reported is included in Annex II-C of this report.

III. Overview of PCRs Received and Due

10. The decrease in the number of PCRs received for 2006, as noted in paragraph 1 above, is partly due to the early cut off date (23 September 2006) and partly due to the decline in the number of PCRs due. Moreover, UNDP and UNEP did not follow the agreed delivery schedule for the first two quarters of 2006 while UNIDO largely exceeded the target figures (see Table I in Annex I). Recurrent activities are reported on not in PCRs but according to Decision 29/4 in the annual progress reports, while terminal reports are provided on each phase of the IS projects, jointly with the request for extension. Annual tranches of multi-year projects are not due to be reported on in PCRs either. Tables 1 and 2 below present more detailed data by agency including comparative figures for the previous two reporting periods.

11. Implementing and bilateral agencies have submitted, as of 23 September 2006, a total of 1,667 PCRs for investment projects and 626 PCRs for non-investment projects, representing 95.1% (compared to 94.5% last year) of PCRs due for investment and 90.8% (90.4% last year) for non-investment projects completed as of 31 December 2005.

Table 1
Investment Projects Overview
(Except Multi-Year Projects)

Agency	Completed Projects up to December 2005	Total PCR(s) Received for Projects Completed up to December 2005	PCR(s) still due	PCR(s) Received in the Reporting Period		
				2004	2005	2006[1]
France	12	9	3	0	0	1
Germany	16	10	6	0	1	7
IBRD	440	401[2]	39	37	57	26
Italy	4	4	0	N/A	4	0
Japan	5	5	0	N/A	2	1
United Kingdom	1	0	1	N/A	N/A	0
UNDP	869	832[3]	37	96	149	11
UNIDO	404	404[4]	0	37	69	26
USA	2	2	0	0	0	1
Total	**1,753**	**1,667**	**86**	**170**	**282**	**73**

Table 2
Non-Investment Projects Overview
(Except Project Preparations, Country Programmes, Multi-Year Projects, Ongoing Projects like Networking and Clearing House Activities as well as Institutional Strengthening Projects)

Agency	Completed Projects up to December 2005	Total PCR Received for Projects Completed up to December 2005	PCR(s) still due	PCR Received in the Reporting Period		
				2004	2005	2006[1]
Australia	7	7[2]	0	0	0	6
Austria	1	1	0	N/A	N/A	N/A
Canada	42	40	2	8	7	6
Denmark	1	1	0	N/A	N/A	N/A
Finland	3	2	1	N/A	N/A	0
France	16	11	5	1	0	2
Germany	31	30	1	7	7	2
IBRD	25	24	1	0	2	2
Israel	1	1	0	1	0	N/A
Japan	6	6	0	0	5	N/A
Poland	1	1	0	0	0	1
Singapore	2	0	2	0	0	0
South Africa	1	1	0	N/A	N/A	N/A
Sweden	2	1	1	N/A	N/A	0
Switzerland	3	3	0	1	N/A	N/A
UNDP	163	135[3]	28	2	17	6
UNEP	272	250[4]	22	22	18	8
UNIDO	72	72	0	14	9	3
USA	40	40	0	0	0	2
Total	**689**	**626**	**63**	**56**	**65**	**38**

[1] After the 47th Meeting of the Executive Committee (4 November 2005 to 23 September 2006).
[2] In addition, Australia submitted 1 Project Cancellation Report.
[3] In addition, UNDP submitted 2 PCRs for transferred projects.
[4] In addition, UNEP submitted 1 PCR for an ongoing project.

12. By 23 September 2006, UNDP, which implements by far the largest number of investment projects, delivered 5 compared to 10 investment project PCRs scheduled for submission by the end of September this year and 6 compared to 21 non-investment project

PCRs. UNEP submitted 8 compared to 14 PCRs for non-investment projects scheduled, and UNIDO sent 26 PCRs for investment projects, 22 more than scheduled, as well as 3 PCRs on non-investment projects, for which no submissions had been planned. The World Bank provided 12 PCRs for investment projects, one more than scheduled, as well as one compared to 3 PCRs for non-investment projects scheduled by the end of September this year. Canada delivered all the non-investment PCRs scheduled for submission (4 PCRs).

13. UNDP has still the largest number of PCRs due (37 for investment projects and 28 for non-investment projects), followed by the World Bank with 39 PCRs due for investment and one for non-investment projects completed by the end of 2005. For UNEP as well as for several bilateral agencies, the combined numbers of PCRs still due for investment and non-investment projects range between 1 and 22 (see Tables 1 and 2 above). There are still 4 non-investment PCRs due for projects completed by the end of 2000, two of them were implemented by UNDP and 2 by Singapore.

IV. Analysis of Project Completion Reports for Investment Projects

(a) PCRs Received and Due

14. By the end of 2005, UNDP had completed 869 investment projects for which it submitted 832 PCRs (95.7 per cent of total) as at 23 September 2006. UNIDO completed 404 projects and submitted 404 PCRs (100 per cent). The World Bank completed 440 projects and submitted 401 PCRs (91.1 per cent). Japan completed 5 projects and submitted 5 PCRs (100%). Germany completed 16 projects and submitted 10 PCRs (62.5 per cent). France completed 12 projects and submitted 9 PCRs (75 per cent). Italy completed 4 projects and submitted 4 PCRs (100%). The U.S.A. completed two projects and submitted two PCRs (100 per cent).

15. As last year, the largest number of PCRs was received from UNIDO, particularly for solvent and foam projects. The second largest number was received for the foam sector. However, foam is still the sector with the largest number of PCRs due, followed by refrigeration. Foam (47) and refrigeration (20) projects combined account for 67 of the 86 PCRs still due for investment projects completed by the end of 2005 (see Table II in Annex I). The backlog of PCRs for early investment projects completed by the end of 1999 has been eliminated.

16. The 73 PCRs received in the reporting period (4 November 2005 to 23 September 2006) represent projects completed in 22 countries. 70% of the completion reports are for projects implemented in eight countries (Algeria, People's Republic of China, India, Indonesia, Iran, Jordan, Pakistan and Turkey).

(b) ODS Phase-out Achieved

17. ODS phase-out in the projects covered in the project completion reports is found to be as planned in most investment projects, the total phase-out reported being slightly more than the planned amount (see Table 3 below). However, information on phase-out achieved in the PCRs is in some cases incomplete when unit production and ODS consumption data before and after the conversion have not been provided (see also Table VIII in Annex I). Moreover, the ODS phase-out data reported in the PCRs are different in 25 of the 73 reports from the ODS data reported in the 2005 Progress Report. While this is in some cases due to different rounding of

figures, for 15 projects significant differences are noted. 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		2005 Progress Report	
		ODP To Be Phased Out	ODP Phased Out	ODP To Be Phased Out	ODP Phased Out
France	1	3.6	3.6	3.6	0.0
Germany	7	481.0	481.0	483.0	0.0
Japan	1	18.2	18.2	18.2	0.0
UNDP	11	284.1	285.0	286.0	286.0
UNIDO	26	2,444.6	2,444.6	2,479.2	2,479.2
World Bank	26	1,758.5	1,797.6	1,338.0	1,351.1
USA	1	29.0	0.0	29.0	0.0
Total	**73**	**5,019.1**	**5,030.0**	**4,637.0**	**4,116.3**

(c) Implementation Delays

18. Out of 73 projects, 7 were completed before the planned date and 66 showed delays ranging from two months to 78 months. In 39 or 53.4% of 73 projects, delays of more than 12 months occurred compared to 74 or 28.9% of projects for which PCRs were received last year. Average delays reported in PCRs in 2006 increased to 18.84 months (from 9.20 months) while the average project duration increased from 43.4 months to 45.56 months (see Table 4 below). Fewer projects were completed before the anticipated completion date, partly as a result of shortened approved durations for a number of projects (under 12 months for one project, and between 12 and 24 months for 20 projects).

19. Delays cannot be attributed to particular sectors or implementing agencies. Delays are most frequently attributed to the receiving enterprise (36), followed by supplier (18), external factors (12), government (12), implementing agency (5) and 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 2005 Progress Reports (Months)	Average Duration as per PCRs (Months)	Average Duration as per 2005 Progress Reports (Months)
France	1	16.23	16.23	41.63	41.63
Germany	7	25.37	27.30	47.56	49.49
Japan	1	15.20	12.17	41.63	38.60
UNDP	11	11.50	11.50	44.11	44.11
UNIDO	26	14.44	14.68	41.22	41.46
World Bank	26	23.61	23.14	49.61	49.80
USA	1	50.73	50.73	62.93	62.93
Total	**73 (256)**	**18.84 (9.20)**	**18.92 (9.32)**	**45.56 (43.42)**	**45.87 (38.96)**

(d) Completeness of Information

20. Key information was less regularly provided than last year, for example the list of annual consumption of ODS and substitutes in 65.8% of the PCRs, compared to 93.4% last year, and 85.2% the year before (see Table 5 below). The list of equipment destroyed is continuing to be

given in most cases (69.9% compared to 80.5% last year). Information entirely missing in parts of the PCR is reported in 4 cases. However, it still happens too frequently that the information is not complete, in particular on ODS and substitutes (28.8% of the PCRs compared to 5.9% in 2005), operating cost and savings (20.5% of the PCRs compared to 7.4% the year before), equipment destroyed (15.1% compared to 9.8% in 2005) and list of capital equipment (4.1% compared to 0.4% in 2005).

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	48	65.8% (93.4%)	21	28.8% (5.9%)	1	1.4% (0%)	3	4.1% (0.8%)
List of Capital Equipment	68	93.2% (99.6%)	3	4.1% (0.4%)	1	1.4% (0%)	1	1.4% (0%)
Operating Cost Details	46	63.0% (88.3%)	15	20.5% (7.4%)	2	2.7% (0.4%)	10	13.7% (3.9%)
List of Destroyed Equipment	51	69.9% (80.5%)	11	15.1% (9.8%)			11	15.1% (9.8%)

*According to indications of Implementing Agencies

(e) Overall Assessment and Rating

21. During the reporting period, implementing agencies rated 38.3% of projects as highly satisfactory down from 56.3% in the previous year; 56.2% were rated as satisfactory, compared to 41% in 2005, and 5.5% as less satisfactory compared to 2.7% 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)

New Assessment	France	Germany	Japan	UNDP	UNIDO	World Bank	USA	Total	% of Total
Highly Satisfactory				7	11	10		28	38.3% (56.3%)
Satisfactory	1	7	1	4	13	15		41	56.2% (41.0%)
Less Satisfactory					2	1	1	4	5.5% (2.7%)
Total	**1**	**7**	**1**	**11**	**26**	**26**	**1**	**73**	**100.0%**

V. Analysis of Non-investment Project Completion Reports

(a) Overview

22. The largest number of the 38 PCRs received for non-investment projects, and also those still due, are for technical assistance projects implemented mainly by UNDP and UNEP. UNEP has continued to reduce the number of old PCRs due but has submitted fewer PCRs than in the years before and has an increased number of PCRs due, similar to UNDP. For bilateral technical assistance projects there are still 7 PCRs due, as well as 5 PCRs for training projects (see Table III in Annex I).

23. According to Decision 29/4, country programmes, project preparation, as well as UNEP's recurrent activities including networking, do not require PCRs. According to the same decision, institutional strengthening projects are providing terminal reports on the previous phase jointly with the extension requests (see table 7).

Table 7
Overview of Institutional Strengthening Reporting

Agency	PCRs for IS Projects Received before Decision 29/4	Terminal Reports Received With Extension Requests for Projects Completed up to December 2005**	Terminal Reports Received With Extension Requests in 2006**
France	1	0	2
IBRD	7	13	2
UNDP	1	77	10
UNEP	10	154	52
UNIDO	2	13	2
USA	0	1	0
Total	**21**	**258**	**68**

* Completed in the sense of a phase being completed.

** Excluding start-up projects and project where approval is only for one year. In these cases, no terminal reports are submitted.

24. The formats for terminal reports and extensions requests for IS projects approved at the 32nd Meeting of the Executive Committee continue to be used for renewal requests. The terminal reports and plans of action submitted show uneven quality and completeness. While some provide full information and assessment, many do not which makes it difficult to determine the results achieved during the previous IS phase. There are often inconsistencies in reporting progress, and lessons learned are not linked to the new tasks for the following year. In many cases, terminal reports look very similar and have obviously been prepared using copy and paste word processing. The agencies are encouraged to improve 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.

(b) Funding, Delays, Phase-out and Assessment

25. Total actual expenditures for all completed non-investment projects with PCRs were reported to be 80% of the planned expenditures which, as last year, indicates some overall savings (see Table 8) that in a number of cases still need to be confirmed once the final financial figures become available.

Table 8

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	19	2,056,959	1,514,077	29.8	2.6	22.86 (24.77)
UNDP	6	342,582	312,082	130.4	130.4	22.81 (20.29)
UNEP	8	555,250	511,862	0.0	0.0	11.17 (22.06)
UNIDO	3	370,000	369,167	13.0	13.0	13.22 (29.30)
World Bank	2	390,900	266,895	41.0	41.0	44.63 (21.80)
Total	**38**	**3,715,691**	**2,974,083**	**214.2**	**187.0**	**20.77 (23.20)**

26. The delays realized for project implementation continue to show a great deal of variance. Out of 38 non-investment projects, 3 were completed before the scheduled date, 5 projects were completed on time, while there were delays in 29 projects ranging from two months to 65 months and one project did not report an actual completion date. In 21 cases or 55.3% of the projects, delays of more than 12 months occurred. No particular patterns with regard to delays by type of project are observable. UNDP shows a slight increase in average delay (22.81 months compared to 20.29 months last year). The average delay of UNEP's projects declined from 22 to 11 months, and UNIDO's from 29 to 13 months. However, the World Bank shows a significant increase in average delay from 21.8 to 44.6 months. The overall average delay for non-investment projects is 20.77 months beyond the planned completion date, showing a slight decrease compared to 2005 with 23.2 months.

27. The difference in ODP phase-out planned and reported as achieved is almost entirely due to four projects implemented by bilateral agencies for which the actual amount phased-out was reported to be less than planned.

28. 13.2% of the projects were marked as 'highly satisfactory', 60.5% as 'satisfactory as planned' and 13.2% as 'satisfactory though not as planned', which is significantly less than last year when this figure was 29.3% (see Table 9). The validity of such assessments can only be verified during evaluations. In several projects rated as "satisfactory though not planned", no clear explanation for this rating has been provided. Three of 38 non-investment projects did not provide an overall assessment.

Table 9

Overall Assessment of Non-Investment Projects by Agencies (Figures in Brackets Show Last Year for Comparison)

Assesssment	Bilateral	UNDP	UNEP	UNIDO	World Bank	Total	% of Total
Highly Satisfactory	3			2		5	13.2% (8.6%)
Satisfactory or Satisfactory and as planned	10	6	4	1	2	23	60.5% (48.3%)
Satisfactory though not as planned	1		4			5	13.2% (29.3%)
Less Satisfactory	2					2	5.3% (1.7%)
Not Provided	3					3	7.9% (5.2%)
Total	**19**	**6**	**8**	**3**	**2**	**38**	**100% (100%)**

(c) Quality of Information Received

29. Most PCRs on non-investment projects contain substantial information and analysis. The overall assessments which are supposed to use pre-defined terms are sometimes not available or are replaced by texts. The sections on causes of delays and corrective actions taken vary a lot in terms of concreteness of information provided. Usually governmental and agency factors are given as causes for delays.

30. Comments on draft PCRs have been provided by NOUs in only 24 of the 38 reports received and by the implementing agency in 14 cases. The lessons learned reported have in many cases been interesting and substantial, as evident in Annex II-B. The increased interest for such lessons learned expressed by the Executive Committee at its 47th and 48th Meetings and the guidelines for the preparation of PCRs for non-investment projects, which include a section on lessons learned, may have contributed to this positive development.

VI. Schedule for Submission of PCRs in 2007

31. 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 2005 and takes into account the number of outstanding PCRs as of 23 September 2006. The Implementing Agencies will, in addition to the above schedule, submit PCRs in 2007 for projects completed during 2006.

VII. Improve Consistency of Data Reported in PCRs and in Annual Progress Reports

32. Decision 47/6 (b)(i) requested implementing agencies, in cooperation with the Secretariat, to establish full consistency of data reported in the project completion reports, in the inventory and the annual progress reports by the end of January 2006. The Secretariat provided all agencies with detailed information on data completeness and inconsistencies of PCRs received in comparison with the Inventory and the Progress Reports. All cases of incomplete information and data inconsistencies in PCRs received in 2003 have now been solved (see Table V in Annex I), while this process still continues with UNEP for some PCRs received in 2004 and 2005 (see Tables VI and VII in Annex I), with several agencies for PCRs received in 2005, and has been started for those received in 2006 (see Table VIII in Annex I).

33. During the reporting period, 62 PCRs were received with incomplete information and 145 PCRs with data inconsistencies, including PCRs submitted between 8 October 2005 to 3 November 2005 that were received too late to be included in the analysis for the last reporting period (see Table VIII in Annex I). Regarding PCRs with incomplete information, the number has decreased (62 PCRs compared to 79 PCRs last year). The number of PCRs with data inconsistencies also decreased (145 PCRs compared to 151 PCRs last year). However, due to the significant decrease in the number of PCR submissions compared to the last reporting period, the share of PCRs with incomplete information or data inconsistencies has increased substantially. This increase is mainly due to PCRs with inconsistencies submitted by bilateral agencies as well as by the World Bank, the latter mostly with regard to “Revised Planned Date of Completion” which was often missing or different from the Progress Report (see Table VIII in Annex I).

34. In order to improve consistency of data and facilitate the preparation of PCRs their first page can, since July 2004, be downloaded from the website of the Secretariat. When indicating the project number or title the first page of the PCR forms will be automatically filled in with data from the 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 not regularly used.

VIII. Lessons Learned

(a) Investment Projects

35. Lessons learned in 73 PCRs submitted for investment projects in the 2006 reporting period were reviewed. Although relatively few PCRs were received compared to previous years, a number of interesting lessons were reported. They are partly technical but refer mostly to management issues of project preparation and implementation. The most useful ones are presented in Annex II-A. They are grouped by sector of activity. Lessons learned are particularly useful when they draw on experiences during project implementation and describe how particular problems have been overcome. Thus, they are interesting also for other projects which might face similar problems.

36. On the other hand, there are also numerous lessons learned reported that are either too general, too specific or too short and thus do not provide any insights useful for other projects. Many instead present a summary of results achieved or even repeat the activities undertaken. Those have been left out of Annex II, but the full list is available on request and on the intranet of the Secretariat in the evaluation section under PCRs.

(b) Non-Investment Projects

37. Lessons learned reported in PCRs on 38 non-investment projects were analyzed. In spite of their low number, several of them are interesting in particular those regarding the implementation of RMPs, which highlight the particular difficulties found in working with small and medium-sized enterprises in the servicing sector. There are also several references to umbrella projects which according to the lessons learned reported, need to be of a more homogenous nature and should preferably consist of a limited number of companies if they are to be implemented without major complications and resulting delays. 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 Secretariat in the evaluation section under PCRs.

(c) Multi-Year Agreements

38. For the first time, and in accordance with Decision 48/12, lessons learned during the implementation of multi-year agreements are presented in this document. Lessons learned from selected multi-year agreements were received from UNDP, UNIDO and the World Bank as well as the UNEP's Regional Office for Asia and Pacific. These lessons learned have not yet been included in the progress reports of annual implementation programmes, but were prepared by implementing agencies on request by the Senior Monitoring and Evaluation Officer. Extracts are presented in Annex II-C.

(d) Follow-up

39. No decision is required by the Executive Committee on these lessons learned as they do not concern issues which have not yet been addressed by the Executive Committee. Nevertheless, they provide interesting reading for all those preparing and implementing projects in the implementing and bilateral agencies, financial intermediaries, PMUs as well as national ozone units. Regional network meetings could be a useful forum for discussing lessons learned regarding the implementation of projects and multi-year agreements in the regions. The Fund Secretariat also takes them into account during the review of projects and phase-out agreements.

IX. Action Expected from the Executive Committee

40. The Executive Committee might wish to consider:

(a) Taking note of the 2006 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 and bilateral agencies concerned:

(i) to establish by the end of January 2007, 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 2007, the information still missing in a number of PCRs;

(iii) to clear the backlog of PCRs for projects completed before the end of 2004 by the end of January 2007.

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ANNEX I: STATISTICS

Table I
Schedule for Planned Submission of PCRs in 2006 and Actual Delivery

	Schedule	Sector	Investment		Non-Investment	
			Schedule	Received	Schedule	Received
UNDP	March 2006	TAS/DEM			9	
	June 2006	TAS/DEM			9	
	September 2006*		10*	1FOA, 1REF, 3ARS	3*	6TAS
	December 2006*		10*		3*	
	Total		**20**	**5**	**24**	**6**
Status at September 23, 2006				**-5**		**-15**
	Schedule	**Sector**	**Investment**		**Non-Investment**	
			Schedule	**Received**	**Schedule**	**Received**
UNEP	December 2005					2TAS
	February 2006					2TRA, 1TAS
	June 2006	TAS (10), TRA(4)	0		14	2TRA
	September 2006					1TRA
	Total		**0**		**14**	**8**
Status at September 23, 2006						**-6**
	Schedule	**Sector**	**Investment**		**Non-Investment**	
			Schedule	**Received**	**Schedule**	**Received**
UNIDO	October 2005	Refrigeration	1			
	December 2005	Refrigeration	1	1FOA		
	January 2006			2REF		
	February 2006	Foam	1	1FOA, 1REF, 1SOL		
	May-June 2006			2FOA		
	July 2006	Refrigeration	1			
	August 2006			5FOA, 4REF, 8SOL, 1PHA		3TAS
	Total		**4**	**26**	**N/A**	**3**
Status at September 23, 2006				**+22**		**+3**
	Schedule	**Sector**	**Investment**		**Non-Investment**	
			Schedule	**Received**	**Schedule**	**Received**
IBRD	January 2006			2FOA, 2REF		
	March 2006	Refrigeration (1), Foam (2)	3	1REF, 3FOA	--	1TAS
	June 2006	Foam (1), Refrigeration (1)	1		1	
	July 2006	Foam (4), Aerosol (2), Refrigeration (1)	5		2	
	September 2006	Foam (1), Refrigeration (1)	2	3REF, 1FOA	--	
	October 2006	Refrigeration (2), Foam (2)	4		--	
	November 2006	Multisector (2), Foam (2), Refrigeration (2)	6		--	
	December 2006	Refrigeration (2), Foam (6)	8		--	
	Total		**29**	**12**	**3**	**1**
Status at September 23, 2006				**+1**		**-2**
	Schedule	**Sector**	**Investment**		**Non-Investment**	
			Schedule	**Received**	**Schedule**	**Received**
Canada	15 November 2005				4	4
	April 2006					2 TRA
	Total		**0**		**4**	**6**
Status at September 23, 2006						**+2**

*Indicative figures only, contingent on number of actual projects completed by 31 December 2005. As a result, the figures may be revised upwards or downwards.

Table II

PCRs for Investment Projects Received and Due by Implementing Agency, Sector and Year (For Projects Completed Until the End of 2005)

Agency	Sector	PCR(s) Received in:										PCR(s) Due in[1]:					
		1998	1999	2000	2001	2002	2003	2004	2005	2006	Total	2002	2003	2004	2005	2006	Total
UNDP	Aerosol	1	-	9	4	11	-	-	4	3	32	-	-	-	3	2	5
	Foam	20	34	79	83	117	87	82	77	7	586	-	3	6	4	11	24
	Fumigant	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
	Halon	-	-	3	13	-	1	-	1	-	18	-	-	-	-	-	-
	Refrigeration	1	22	2	33	9	22	39	42	1	171	-	-	1	4	1	6
	Solvent	3	-	-	19	-	-	1	2	1	25	-	-	-	-	-	-
	Sterilant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	Total	**25**	**56**	**93**	**152**	**137**	**110**	**122**	**126**	**11**	**832**	**-**	**3**	**7**	**12**	**15**	**37**
UNIDO	Aerosol	6	6	10	6	4	2	-	7	-	41	-	-	-	-	-	-
	Foam	8	22	3	22	11	15	11	14	8	114	-	-	-	-	-	-
	Fumigant	-	-	-	-	2	1	-	1	-	4	-	-	-	-	-	-
	Halon	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
	Process Agent	-	-	-	-	1	3	2	4	-	10	-	-	-	-	-	-
	Phase-Out Plan	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
	Refrigeration	12	25	11	32	14	22	24	34	7	181	-	-	-	-	-	-
	Solvent	5	13	5	3	3	5	5	4	9	52	-	-	-	-	-	-
	Total	**32**	**66**	**29**	**63**	**35**	**48**	**42**	**64**	**25**	**404**	**-**	**-**	**-**	**-**	**-**	**-**
World Bank	Aerosol	4	6	6	-	1	-	2	5	-	24	-	-	1	3	-	4
	Foam	18	25	38	20	20	18	8	26	6	179	-	3	2	11	1	17
	Fumigant	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	2
	Halon	2	1	1	-	-	-	-	-	-	4	-	-	1	-	-	1
	Multiple Sectors	1	-	1	-	-	-	-	-	-	2	-	-	-	2	-	2
	Others	-	-	2	-	-	-	-	-	-	2	-	-	-	-	-	-
	Process Agent	-	-	-	-	-	-	1	1	-	2	-	-	-	-	-	-
	Production	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
	Refrigeration	18	24	22	26	15	16	12	21	6	160	-	1	4	2	4	11
	Solvent	15	4	3	1	-	-	-	3	-	26	-	-	1	1	-	2
	Sterilant	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-
	Total	**59**	**60**	**73**	**48**	**36**	**34**	**23**	**56**	**12**	**401**	**-**	**4**	**10**	**20**	**5**	**39**
Bilateral	Aerosol	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-
	Foam	-	-	3	2	2	2	-	5	6	20	-	-	-	6	-	6
	Halon	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-
	Refrigeration	-	1	1	-	-	-	-	2	4	8	1	-	1	-	1	3
	Solvent	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
	Total	**-**	**1**	**5**	**2**	**3**	**2**	**-**	**7**	**10**	**30**	**1**	**1**	**1**	**6**	**1**	**10**
Grand Total		**116**	**183**	**200**	**265**	**211**	**194**	**187**	**253**	**58**	**1,667**	**1**	**8**	**18**	**38**	**21**	**86**

[1] 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 2005)

Agency	Sector	See PCR(s) Received so far for Year Due										PCR(s) Due in[1]:								
		1998	1999	2000	2001	2002	2003	2004	2005	2006	Total	Before 1997	2000	2001	2002	2003	2004	2005	2006	Total
UNDP	Demonstration	-	-	5	-	-	7	1	2	-	15	-		-	-	-	-	-	-	-
	Technical Assistance	-	6	39	17	7	5	1	15	6	96	-	2	-	1	1	11	6	7	28
	Training	-	18	6	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	-
	Total	**-**	**24**	**50**	**17**	**7**	**12**	**2**	**17**	**6**	**135**	**-**	**2**	**-**	**1**	**1**	**11**	**6**	**7**	**28**
UNEP	Technical Assistance	9	53	3	18	22	18	5	6	1	135	-	-	1	1	1	1	6	3	13
	Training	8	34	1	2	21	15	20	9	5	115	-	-	-	-	-	-	4	5	9
	Total	**17**	**87**	**4**	**20**	**43**	**33**	**25**	**15**	**6**	**250**	**-**	**-**	**1**	**1**	**1**	**1**	**10**	**8**	**22**
UNIDO	Demonstration	-	-	-	6	7	3	3	3	-	22	-	-	-	-	-	-	-	-	-
	Technical Assistance	-	6	8	-	4	1	3	4	3	29	-	-	-	-	-	-	-	-	-
	Training	-	1	1	-	5	6	7	1	-	21	-	-	-	-	-	-	-	-	-
	Total	**-**	**7**	**9**	**6**	**16**	**10**	**13**	**8**	**3**	**72**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
World Bank	Demonstration	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
	Technical Assistance	5	4	6	-	1	-	2	1	1	20	-	-	-	-	-	1	-	-	1
	Training	-	3	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
	Total	**6**	**7**	**6**	**-**	**1**	**-**	**2**	**1**	**1**	**24**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**1**
Bilateral	Demonstration	5	5	12	-	3	1	1	-	2	29	-	-	-	-	-	-	-	-	-
	Technical Assistance	-	-	13	1	1	9	14	15	8	61	1	-	-	-	-	1	-	5	7
	Training	1	3	19	1	9	6	5	6	5	55	1	-	-	-	1	-	3	-	5
	Total	**6**	**8**	**44**	**2**	**13**	**16**	**20**	**21**	**15**	**145**	**2**	**-**	**-**	**-**	**1**	**1**	**3**	**5**	**12**
Grand Total		**29**	**133**	**113**	**45**	**80**	**71**	**62**	**62**	**31**	**626**	**2**	**2**	**1**	**2**	**3**	**14**	**19**	**20**	**63**

[1] 6 months after projects completion according to the Progress Report.

Table IV
Schedule for Submission of Outstanding PCRs in 2007
(For Projects Completed until 31 December 2005)

	Schedule	Sector	Investment PCRs	Non-Investment PCRs
UNDP	January 31	Foam	9	-
		Refrigeration	1	7
	March 31	Aerosol	1	1
		Fumigation	4	-
		Refrigeration	1	-
			4	6
	July 31	Aerosol	4	-
		Foam	6	-
		Refrigeration	-	7
	September 30	Foam	5	-
		Halon	-	1
		Solvent	1	-
		Refrigeration	1	6
	Total		**37**	**28**
Total PCRs Due as of September 23, 2006			**37**	**28**
	Schedule	**Sector**	**Investment PCRs**	**Non-Investment PCRs**
UNEP	December 2006	Technical Assistance		6
		Training		3
	January 2007	Technical Assistance		3
	Total		**N/A**	**12**
Total PCRs Due as of September 23, 2006			**N/A**	**22**
	Schedule	**Sector**	**Investment PCRs**	**Non-Investment PCRs**
UNIDO*	July	Fumigation	6	6
		Halon	1	
		Solvent	4	
		Refrigeration	3	2
	September	Solvent	1	
		Fumigation		2
	November	Aerosol		1
		Fumigation	3	
		Halon	2	1
		Refrigeration	5	
	December	Fumigation	1	
	Total		**26**	**12**
Total PCRs Due as of September 23, 2006			**0**	**0**
	Schedule	**Sector**	**Investment PCRs**	**Non-Investment PCRs**
World Bank**	January	Refrigeration (1)	3	--
		Foam (1)		
		Solvents (1)		
	March	Multisector (1)	2	1
		Refrigeration (1)		
	July	Foam (1)	4	--
		Aerosol (2)		
		Refrigeration (1)		
	September	Foam (1)	2	
		Refrigeration (1)		
	October	Refrigeration (1)	2	--
		Foam (1)		
	November	Halon (1)	4	--
		Methyl Bromide (1)		
		Refrigeration (2)		
	December	Refrigeration (2)	5	--
		Foam (3)		
	Total		**22**	**1**
Total PCRs Due as of September 23, 2006			**39**	**1**

* Will be submitted for projects completed in 2006 and 2007.

**Table includes expected PCRs for projects completed up through December 2005 with outstanding PCRs (40 total) and takes care of the number of outstanding PCRs as of September 2006 *minus* PCRs that will be submitted by December 31, 2006 (expected 17). The Bank will, in addition to the above schedule, be submitting PCRs in CY2007 for projects completed through 2006 and up to June 30, 2007.

Table V
SUMMARY OF PCRs RECEIVED IN 2003 WITH DATA PROBLEMS
(As of September 23, 2006)

	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
Incomplete Information			63	63			23	23			86	86
Solved as % of Total				**100%**				**100%**				**100%**
Data Inconsistencies												
Date Approved			4	4			1	1			5	5
Planned Date of Completion	4	4	2	2	1	1	6	6	3	3	16	16
Date Completed	5	5	11	11	11	11	2	2	7	7	36	36
Funds Approved			5	5			1	1	4	4	10	10
Funds Disbursed	5	5	8	8			1	1	4	4	18	18
ODP To Be Phased Out			8	8	1	1			2	2	11	11
ODP Phased Out			17	17	1	1	3	3	2	2	23	23
Total	**14**	**14**	**55**	**55**	**14**	**14**	**14**	**14**	**22**	**22**	**119**	**119**
Solved as % of Total		**100%**		**100%**		**100%**		**100%**		**100%**		**100%**

Table VI
SUMMARY OF PCRs RECEIVED IN 2004 WITH DATA PROBLEMS
(As of September 23, 2006)

	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
Incomplete Information			2	2	1	1	46	46			28	28	9	9	86	86
Solved as % of Total				**100%**		**100%**		**100%**				**100%**		**100%**		**100%**
Data Inconsistencies																
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
Total	**5**	**5**	**7**	**7**	**1**	**1**	**40**	**37**	**5**	**5**	**12**	**12**	**51**	**51**	**121**	**118**
Solved as % of Total		**100%**		**100%**		**100%**		**93%**		**100%**		**100%**		**100%**		**98%**

Table VII
SUMMARY OF PCRs RECEIVED IN 2005 WITH DATA PROBLEMS
(As of September 23, 2006)

	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
Incomplete Information	1	1	1		1	1	33	28			32	32	11	10	79	72
Solved as % of Total		**100%**		**0%**		**100%**		**85%**				**100%**		**91%**		**91%**
Data Inconsistencies																
Date Approved	3	3					3	3							6	6
Planned Date of Completion			1				15	15			2	2	2	1	20	18
Revised Planned Date of Completion	3	3			2	2	23	21	3	3			27	26	58	55
Date Completed	2	2	1		2	2	22	22	1	1	1	1	6	6	35	34
Funds Approved	1	1	1										6	6	8	7
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
Total	**10**	**10**	**3**	**0**	**4**	**4**	**73**	**71**	**4**	**4**	**5**	**5**	**52**	**50**	**151**	**144**
Solved as % of Total		**100%**		**0%**		**100%**		**97%**		**100%**		**100%**		**96%**		**95%**

Table VIII
SUMMARY OF PCRs RECEIVED IN 2006 WITH DATA PROBLEMS
(As of October 9, 2006)

	Australia		Canada		France	Germany		Japan		Poland	UNDP	UNEP	UNIDO		World	Total	
	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs	Problems with PCRs	Problems with PCRs	Problems with PCRs Solved	Problems with PCRs	Problems with PCRs	Problems with PCRs Solved
Incomplete Information	1	1	1	1	2	8	7				5	1	9	9	35	80	18
Solved as % of Total		**100%**		**100%**			**88%**							**100%**			**23%**
Data Inconsistencies																	
Date Approved	1	1			1	1	1								3	8	2
Planned Date of	1	1	2	2	1							1			17	25	3
Revised Planned Date of Completion	1	1	5	5	1	4	0					3	1	1	43	65	7
Date Completed	2	2			2	3	3	1	1	1			1	1	5	22	7
Funds Approved			2	2	1	1	1								4	11	3
Funds Disbursed			4	4	1							1			4	14	4
ODP To Be Phased Out						2	2						1	1	5	11	3
ODP Phased Out			1	1	1	8	8	1	1				1	1	5	28	11
Total	**5**	**5**	**14**	**14**	**8**	**19**	**15**	**2**	**2**	**1**	**0**	**5**	**4**	**4**	**86**	**184**	**40**
Solved as % of Total		**100%**		**100%**			**79%**		**100%**					**100%**			**22%**

ANNEX II: LESSONS LEARNED REPORTED IN PCRs AND FOR MYAs

A. INVESTMENT PROJECTS

(a) The use of the LCD technology for mattresses flexible PUF moulding, using high pressure dispensing equipment, is a perfectly viable proposition (ALG/FOA/31/INV/44 and two other projects in Algeria, Germany).

(b) Having the NOU involved in the project from the beginning helped to assure a smooth and fast project implementation. As this was the final foam sector project for Bolivia, it was crucial to involve the NOU from the beginning, starting with participant identification. This allowed all eligible enterprises to participate fully, and ensured fair treatment of the sector in ODS-limiting legislation. Use of competent local consultants for implementation of the non-investment portion of the project rusted in a very satisfactory implementation while maintaining the budget. This successful implementation illustrates the value of identifying and making use of local consultants who know and understand the subject matter, as well as the local industry and contacts (BOL/FOA/35/INV/15, UNDP).

(c) Avoid changing the Financial Agent of the project and estimate a reasonable time for implementation. Two years have proven to be far too short for projects in China (CPR/FOA/23/INV/230, IBRD).

(d) Not only environmental but also technological and techno economical benefits should be promoted prior to the project implementation to attract counterpart's commitment to implement the project. Counterpart's dedication is fundamental for successful execution of the project. Clear technical concept and straightforward strategy for the implementation of the project, as well as the teamwork spirit created by the implementing agency made the implementation process moving smoothly and steadily. Well-established linkages between UNIDO, UNDP and National Ozone Unit facilitated the efficient and proactive arrangements for custom clearance for imported equipment (IDS/FOA/36/INV/144 and three other projects in Indonesia and Syria; UNIDO and Japan).

(e) The costs for trials and site preparation need to be realistically estimated and the eligible part funded accordingly (IND/FOA/34/INV/317 and five other projects in Indonesia; UNDP).

(f) It is important that before the project is prepared for a company, it is also important to determine the available power supply. This was the main reason for the delay, because the machine was delivered but the commissioning of the machine could not be done for a long time because the company could not arrange for the specific electric power of the unit (IND/FOA/36/INV/351, Germany).

(g) "Umbrella Project" approach was not an appropriate solution to address this type of enterprises under the specific conditions of the country. It appeared that the 50% reduction of the originally estimated project cost was not justified (IRA/FOA/17/INV/11, UNIDO).

(h) For the projects that involve pentane or any other flammable chemical (as a blowing agent in this case), it would be appropriate to estimate an adequate period for the plant preparation from the safety point of view. Better safety conditions have been achieved through relocation of the plant. The formal aspects of the transfer related to local rules and regulations, which could be solved only by the counterpart, should not be underestimated. Several technical modifications are still required and thus the project built up considerable delays (IRA/FOA/31/INV/73 and one more project in Iran; UNIDO).

(i) The enterprise had to contribute counterpart funding in the procurement of machinery and opened a separate account, aside the NBP account, to put in this contribution. Thus the PO was covered by two accounts at fixed percentages. By the time that purchasing documents of the machinery were cleared, however, the amount (90%) could not be paid during a two month period because of the problems encountered with counterpart contributions since the Euro increased in value which consequently increased the overall cost of the equipment. The difference was eventually covered by the contingency funds but because of separate accounts, this solution was not easy to execute. It also created difficulties with the

supplier as its payment was delayed. It was agreed that in the future, in cases where there is counterpart funding for one piece of equipment or order, a separate account would NOT be opened and instead a Cash Margin account would be opened so that at the time of acceptance of documents NBP can pay the enterprise contribution immediately and directly (PAK/FOA/29/INV/34, IBRD).

(j) For the last companies to convert, the consumption of CFC is usually small; therefore, the machines to be purchased are small and, if possible, better made in the region. The Brazilian equipment purchased for this project fulfilled the requirements and was not expensive. Another lesson is that a project involving 21 companies is too big and can be delayed by problems in only one of the companies. It is better to split this kind of project in two or three umbrella projects (VEN/FOA/38/INV/96, UNIDO).

(k) Sufficient allocation of contingency cost should be maintained to avoid overruns in incremental capital cost due to delays in project preparation, detailed engineering, size of the project and time-period for implementation (IND/PAG/34/INV/320, IBRD).

(l) Careful analysis of the company's financial prospects prior to project completion is desirable (ALG/REF/32/INV/47, UNIDO).

(m) Since the companies were close to each other and their product portfolio was very similar, the umbrella approach was beneficial and duplicate efforts could be avoided. Equipment purchase, installation and commissioning mission etc. could be arranged at the same time. Through this approach cost savings were made for the benefit of the Multilateral Fund. Should there be any similar cases in future, the umbrella project approach would be again recommended (BHE/REF/39/INV/14 and one more project in Brazil, UNIDO).

(n) Host-country partners are critical to the success of international technology cooperation, and should be identified based on their skills, formal authority, dedication, and desire to cooperate. Developing-country officials often have very heavy workloads and multiple responsibilities, so the cooperative program must be aligned with their core institutional interests. Projects with strong relevance to their mission will rank very high in their priorities, and they are more likely to provide the kind of host-country leadership that is essential to the success of technology cooperation efforts. Other partners must also be chosen carefully, paying attention to their skills and institutional interests. Initial research can be an excellent way to identify effective project partners, especially in the host country (CPR/REF/16/INV/116**,** USA).

(o) It is not advisable to assign complete plant conversions to a single subcontractor without a very extensive positive list of references. It is much more effective to separate the supply of foaming equipment and of the refrigerant charging line components (CPR/REF/17/INV/119, UNIDO).

(p) During the nation-wide survey in Thailand, the KE team faced several challenges and problems (anticipated and not anticipated) and there are some lessons that should be considered during the design and implementation of a phase-out program dealing with small and medium enterprises (SMEs). KE is one of the major local compressor manufacturers. Key lesson-learned are highlighted below.

(i) Strong commitment of the lead enterprise and the key agencies: The main beneficiaries of the project are SMEs and identifying and collecting data from them is a difficult task that requires significant time and efforts. The results so far suggested that this umbrella approach is an effective way to deal with SMEs but would require strong commitment of the lead enterprise and the government agencies. KE had established its own connection network and gained trust with its clients all over the country. These conditions facilitated data collection and verification of the project. However, delays and difficulties also occurred during the early stage of the project activities due to the adverse impacts of the country financial crisis and the lack of experience on execution of this type of programme. Fortunately, DIW, IFCT, WB and KE were fully committed to this project and worked closely (on a monthly basis) to address problems and delays. The country financial crisis stabilized and clear work plans were established for all Parties involved, which improved the implementation performance of the project.

(ii) Data collection and verification for SMEs were difficult and time consuming activities. The anticipated level of effort that had been budgeted to conduct the national field survey was underestimated. There were two main reasons for this: First, the basic attitude and management nature of SMEs, especially their unwillingness to get involved with a government agency, as well as the lack of systematic records from their business. All the enterprises are SMEs, normally managed by one person (the owner). Meetings with owners were difficult to achieve, particularly during the first visit to the enterprise. Several visits therefore had to be made for many of the enterprises before any commitment was obtained. Time and effort were also spent at each enterprise to clarify the conditions and requirements of the project. Many of the enterprises were very skeptical about the project and the assistance and did not want to open their books to any government agency for fear of inspections and taxes valuation. Extensive efforts had to be made to collect documentation that was sufficient to establish baseline consumption of the various enterprises. Despite having taken the decision to participate in the project, most SMEs did not keep proper records of their CFC consumption and/or their equipment. Most of them did not have complete monthly records of production. Most enterprise owners pay a fixed amount of taxes based on a lump-sum estimate of their income, and there is no requirement to keep official records as long as their incomes do not exceed the expected limit. The amount of CFC consumption and production numbers were therefore typically recorded informally, and records were not kept for long.

(iii) The country's financial crisis greatly impacted business and SMEs. Most SMEs were vulnerable to financial pressures. During the survey, it was evident that many of the enterprises registered during the project preparation were not in the position to participate in the project and/or had changed the business from manufacturer (prior the crisis) to service providers, which were not eligible for assistance. This resulted in additional survey time and efforts (in terms of staff inputs) from the KE term (and their regional staff) to identify additional enterprises. As a result, data collection and identification activities took longer than expected (THA/REF/25/INV/92, IBRD).

(q) The level of trainees wasn't very homogeneous, but all trainees were interested by the theoretical training. Concerning the practical training sessions, it is important that one chiller is made available for demonstration purposes. Other factors must be planned for, such as the availability of enough electricity to produce the cooling water and test one chiller. A demonstration project is necessary to increase the company owners' awareness on the importance of a chiller maintenance and replacement programme and its link to energy efficiency (reduction of electricity requirements). However, a technical and economical feasibility study should be carried out to highlight if it is more profitable for a company to invest in non CFC chillers rather than to plan for a better use of the energy availability and an increase of the efficiency of all its equipment like chillers and air compressors (VIE/REF/28/INV/22, France).

(r) During the implementation, the design of the equipment was done in such way that the production and yields were not affected. Intensive training for the employees for using the safety equipment needed to be given for the process/equipment. Maximum efforts should have been taken during the equipment commissioning period so that the product parameters and rated equipment output were properly established (DRK/SOL/38/INV/20, UNIDO).

(s) Nitrogen purge to avoid oxidation of some metals on the surfaces of products along with vacuum cleaning to reduce the cleaning temperature of solvent were applied in the specially designed cleaning machine. It allowed applying widely used solvent TCE instead of expensive solvents like HFCs (IND/SOL/40/INV/362, UNIDO).

(t) Resolute promotion of eco-efficient cleaning technologies is crucial to attract the attention of the counterpart. Counterpart's dedication to the whole process of project implementation is vital (PAK/SOL/37/INV/47 and two more projects in Pakistan, UNIDO).

(u) No analysis is undertaken to make assessment of the size of the top-loading degreaser and the space needed for its installation as well as the availability of the sufficient space at the premises of beneficiary. The

project duration was extended for one additional year until beneficiary was able to invest unplanned money to construct a new cleaning chamber (ROM/SOL/41/INV/22, UNIDO).

B. NON-INVESTMENT PROJECTS

(a) It was crucial to create a partnership between the Ozone Offices and the fire fighting industry from the respective countries in West Asia. A code of conduct was introduced to be voluntarily respected by the industry which would render the implementation of halon bank activities successful and sustainable. The awareness seminars and campaigns that were implemented in the West Asia Countries paved the way for the introduction of recycling equipment. The armed forces in the countries were always invited to attend the seminars. This made them aware of the challenges of halon shortages they will be facing in the near future and take the necessary actions. In some cases the operators appointed to undergo the training on the R&R equipment, did not have the necessary qualifications and background to benefit from the course. This necessitated additional training time. The regional approach requires that the four participating countries take the full ownership and responsibility for sharing the mobile halon reclamation center. Finally, this approach was not viable as the ozone officers did not reach agreement on sharing the equipment (ASP/HAL/30/TAS/37, France).

(b) Regional activities should not be the emphasis of projects, as regional coordination between several countries is often difficult, time consuming and costly. This also leads to delay in implementation of national activities that are tied up with regional activities. Also the recovery and recycling component should be a separate component from the other RMP activities as the R&R successful implementation can delay the final completion of the project as was the case for this project. Nevertheless, R&R was relatively successful in Botswana because refrigerant prices are rather high and competition between workshops demands cost cutting. R&R can contribute to this (BOT/REF/26/TAS/06, Germany).

(c) A full report on the project - Phase 1: Assessment Teams Report Following Visit to Buenos Aires and Rosario November 3 to 19, 1995 - found that: "no useful purpose would be served by trying to set up a system for reclaim, recycling and/or destruction of ozone depleting refrigerants as exists in Australia because the infrastructure to support such a scheme does not exist". Three fields of activity were recommended for Argentina: training, pilot projects for recovery and recycling and awareness and information transfer. The Phase 1 report suggested that training schemes should "include reclaim and loss prevention technology as an integral part, because such a scheme would yield far greater economies in ODS consumption than would a formal reclaim scheme such as operates in Australia". The Phase 1 report described how two different translation methods were used at each workshop, and found that "the larger the audience and the more general the topic, the better to use simultaneous translation, whilst the more technical the topic and the smaller the audience, sentence-by-sentence translation would seem to be more appropriate" (ARG/REF/17/TAS/24, Australia).

(d) There are a range of regulatory and voluntary initiatives that can be used to facilitate the control and ultimate phase-out of ODS. Engaging actors from various segments of the society to participate in developing such measures helps to ensure that the most appropriate instruments are developed. Objectives of each project should be clearly defined in the project proposal and understood by all relevant stakeholders. In this case, it appears that the purpose of the techno-economic study and the strategy for replacing 50,000 commercial units was not well understood by all actors, and their relationship to the rest of the project, which focused on regulations, was unclear. Hence, the usefulness of the techno-economic study prepared by the international consultant to the development of the regulations is not clear, and a comprehensive replacement strategy was never actually developed. In retrospect, the funds used for the international consultant could have been better spent on providing these funds to Cuba to further engage legal experts and organize stakeholders' workshops. Despite these problems, the project as a whole was very successful in ensuring that relevant stakeholders in Cuba were engaged and focused on perfecting and augmenting Cuba's regulatory control of ODS imports and use. It resulted in a significant amount of new and innovative policy and regulatory measures to further assist Cuba in complying with the Montreal Protocol (CUB/REF/29/TAS/14, Canada).

(e) Success of the project was due, in part, to the prior establishment of an ODS import quota licensing system and other policy and regulatory measures to encourage recovery and recycling practices. Other contributing factors are the dedication of the NOU, good working relationship between IA and country, and the flexibility within the project to make adjustments where needed i.e. as seen in this project, the innovative approach to provide Cuba with the best available technical options for their specific needs (CUB/REF/30/TAS/15, Canada).

(f) As has been pointed out in various evaluations and other PCRs, it would be better to focus on recovery/re-use operations in this kind of projects rather than to attempt to transport/recycle the refrigerant (except if large systems are present) (GAB/REF/26/TAS/07, UNDP).

(g) Organization and better coordination is needed for implementation of both investment and non-investment components. Ensure that service shops should be aware of their rights and responsibility. Proper monitoring and evaluation of service shops from government is needed, and sanctions for non-compliance should be implemented. Equipment supplier must have satisfactory after sales service (IDS/REF/15/TAS/29, IBRD).

(h) The reason for the approval of this technical assistance was to ensure local country ownership during the formulation of the Refrigeration Servicing Plan (which was later integrated in an overall CFC Phase-out Plan). During the time of project formulation, some actors expressed the wish that the person involved should have been more proactive and able to play a more determining role in assisting the NOU rather than having the international staff of the various international agencies steer the process. A "lesson learned" would therefore be to ensure that only highly qualified candidates who have a track record of good leadership, be considered during the recruitment of the national consultant (IDS/REF/32/TAS/279, UNDP).

(i) Recovery and recycling can only play a limited role in a country's aim of meeting its phase out targets especially if the quantities of CFC used in the country are very small as was the case for Mauritius. The enforcement of the ODS regulations controlling imports of CFCs contributed significantly to the phase out of CFC use in the country. The situation might have been different if the CFC equipment base in the country was significant and thus the servicing needs of equipment would have to be met through recovered/recycled CFCs when import controls were enforced (MAR/REF/28/TAS/12, Germany).

(j) Any equipment that is to be used at the sessions of the workshop should be sent well before the workshop to make sure that they are available for the practical sessions. While conducting the workshop the instructor should be careful not to use phrases that are technical which may not be understood by the local participants. Language was an initial problem especially during the Phase I training. Participants only spoke Vietnamese, and simultaneous translations had to be done which slowed down the training somehow. It is suggested that all materials should be translated way in advance, and to use local speakers as much as possible during the training so that there will be more interaction with the participants. One lesson learned here is the fact that if there is a conscious understanding of the language barrier, then these can be remedied early on in the project planning process (VIE/REF/34/TAS/37, Poland).

(k) It was important to focus training on the border posts and Customs technicians where ODS imports most commonly occur. Training technicians in other border posts was considered to be an ineffective use of resources. Trained Customs technicians felt that additional follow-up activities would be beneficial, especially additional work on raising awareness on ODS and ozone layer destruction with Customs personnel. It was also mentioned that trained Customs technicians should be informed regularly on new laws and regulations related to ODS. All participants agreed that practical activities should be stressed during the workshop, such as use of ODS identifiers, or field visits to identify refrigerant imports. Regarding practical exercises with refrigerants and detectors, safety accessories must be included. It is essential that safety gloves, glasses, and aprons be included as part of the equipment provided. Regarding the materials used in the training, participants provided several comments, including: (a) experiences from other countries should be included; (b) it would be helpful to have a video including the course contents on the ozone layer, the danger caused by the depletion of the ozone layer, the way in which trade with ODSs can be controlled in customs, and the appropriate practical way to detect ODS; and (c) more graphic

material, photos, drawings, schematics should be included, especially the color coding of refrigerant containers (BOL/REF/36/TRA/19, Canada).

(l) A lack of access to more costly equipment, such as vacuum pumps and R&R machines, makes the adoption of some good refrigeration practices extremely difficult. Sustainability of training can be enhanced by partnering with local training institutes to carry out good refrigeration practices training. While the workshops might have focused on training refrigeration servicing technicians, there were participants and much interest from maintenance personnel at hotels and other companies. Participants believed that additional awareness activities are needed in the sector, and that perhaps the sector needs to be regulated (BOL/REF/36/TRA/21, Canada).

(m) A strong commitment by the government to provide training to all of the country's refrigeration technicians and engineers ensured that over 3000 individuals were trained. This shows that, even with limited funds, much can be achieved if government commitment is significant. Providing tools and equipment to training centres to demonstrate good practices, including such basic items as used domestic refrigerators, can significantly enhance the quality of the training and ensure buy-in from the training centres (CUB/REF/29/TRA/12, Canada).

(n) As with the Training of Technicians project, this project shows that a strong commitment by the government can ensure that the training provided is well organized, comprehensive and reaches as many customs officers as possible. Although only a little above US $12,000 from project funds were used by Cuba for the organizational costs involved with training, the country was able to train 667 customs officers, which is a remarkable achievement (CUB/REF/29/TRA/13, Canada).

(o) The workshops created unique opportunity to discuss national legislation concerning ODS in Georgia and, in particular, the national ODS import/export licensing system. Based on those discussions and further explanations provided by the International and National Consultants, the need of specific amendments to the existing legislation has become clear. The possible amendments discussed concerned, inter alia, introducing export controls, issuing the permits for import of ODS-containing products, treating ODS-containing mixtures in the same way as ODS, differentiating between virgin and used ODS; Crucial role of the customs training workshops in establishing routine contacts between the government agencies involved in ODS monitoring and control was proved during workshops in Georgia; The additional technical training is needed for customs officers who will be responsible for daily work with identifiers of ODSs (GEO/REF/23/TRA/02, UNEP).

(p) At the end of the training workshop, the participating Customs and Camcontrol officers provided the following feedbacks in order to improve the implementation of ODS import and export licensing system: The need of additional refrigeration identifiers to cover all customs checkpoints along the border in Cambodia to ensure that they were properly equipped for monitoring and controlling of ODS. There should be more Khmer versions of ODS documents made available for public distribution. More awareness programmes should be implemented on ODS to the public sector and other line-ministries. Continuous sharing of data and information among the Ministry of Environment, Customs and Excise Department, other related institutions and checkpoints' agencies. Strengthening cooperation is essential between concerned ministries and other institutions related to ODS for sustainable implementation in phasing out of ODS (KAM/REF/41/TRA/07, UNEP).

(q) The training course should more focus on the practice session with brief introduction of the theory of refrigeration (MDV/REF/38/TRA/07, UNEP).

(r) The break-out session on the effective operation of the import/export licensing system, enforcing ODS regulation, public education, and ODS legislation was well received by participants. Many recommendations came out of this session on making the existing procedures of Import licensing system more effective. Additional agencies and stakeholders involved in controlling and monitoring ODS should have participated and additional local resource persons should have been invited (MDV/REF/38/TRA/08, UNEP).

(s) The regional approach to training where officials from UNEP worked in close coordination with the country officers was done for this workshop, which gave good results. This could be followed in other training workshops, too. An unscheduled session added in on the last day in the first workshop, where the participants came forth and taught what they had learned served as a ready evaluation tool. Thus a five-day module gave enough time to the participants to go into issues in depth and provided much needed time for various kinds of group activities. It is important to have a good mix of customs officers and other stakeholders to ensure fruitful future cooperation. The availability of a number of testing equipment enabled greater practical participation among the participants. The break-out sessions on the effective operation of the import/export licensing system, enforcing ODS regulation, and dealing with seized ODS were well received by participants. It is felt that break out sessions brings out the best from the participants and should remain an integral part of any training. Additional agencies and stakeholders involved in controlling and monitoring ODS were invited to participate in the workshop. This helped in forming an informal group of people working for the same cause and could be useful for future cooperation. The participation of all relevant stakeholders should be ensured for future workshops and could be suggested to other countries as well (PHI/REF/35/TRA/66, UNEP).

C. MULTI-YEAR AGREEMENTS (MYAs)

1. UNDP

(a) NOUs, and/or nationally endorsed Project Management Units (PMUs), should ensure effective participation of relevant stakeholders (industry associations, importers, agriculturalists and other involved institutions) in the formulation phase, as it facilitates implementation given that commitments and activities are already agreed upon and roles established from the outset. Some projects have in the past experienced delays due to lack of proper consultation with appropriate stakeholders which in turn has led to renegotiation of commitments post project approval.

(b) When a Project Management Unit (PMU) is established the reporting lines must be clearly established in order to avoid confusion and /or misunderstandings during execution. In one case, a PMU that was initially reporting to both the IA and the government increased delivery and improved accountability after a clear reporting line to the IA was decided by the Government. In smaller countries the recruitment of a National Coordinator reporting directly to the NOU or to UNDP (again depending on the specific situation of the country) has also been positive in terms of execution, monitoring and accountability, as long as the reporting lines are clearly defined.

(c) In UNDP, the National Execution Modality (NEX) is the preferred execution modality and UNDP's Governing Council encourages UNDP to use NEX wherever possible. Most MYAs are executed under the NEX modality ensuring the country drives their execution. Under NEX, the government is the party responsible for the execution of the project, and UNDP, at the Country Office level, provides support throughout the execution of the project. It is against UNDP rules and regulations to disburse funds from a project before a Project Document has been signed by both parties. UNDP is not allowed to take any concrete action (spend funds or hire consultants) unless the government requests. In one case the hiring process of the project coordinator was not completed and the contract was not issued until 18 months after the project was approved by the Executive Committee. Based on this, the Implementing Agency should not take full responsibility for delays due to lack of the project document signature by the Government.

(d) MP projects are often conceived as strictly technical projects, and many times ignore the political and institutional reality surrounding them. A lesson learned from several plans has been that political and institutional constraints need to be dealt with before the full scale project implementation can commence.

(e) It is important to understand the national client base and to be able to exercise flexibility based on local circumstances. During implementation of the China Solvent Sector Phase-out Plan, approved in 2000, implementation mechanisms evolved over time, adapting to the practical situations of the enterprises, especially in addressing small solvent consumers. For large and medium users, the reduction of ODS consumption was attained by using "ODS Reduction Contracts", with eligible enterprises bidding to

undertake phase-out projects based on the use of pre-determined sector specific technical options. For small users a "Voucher System" was developed allowing them to procure technology and knowledge from a network of pre-approved technical support centers, equipment suppliers and dealers.

(f) Promoting procurement of local equipment and materials, particularly when working with large numbers of SMEs or small-scale growers, will help to achieve long-term sustainability and reduce cost. Experience has taught that local procurement opportunities should be explored during project formulation in order to ensure that establishment of national procurement systems are a) feasible (e.g. opening dedicated bank accounts for project procurement); and b) do not contribute to project implementation delays. Such mechanisms should be discussed, and the terms agreed upon, in tandem with the organization of the national Project Management Units for MYAs.

(g) In Brazil, thanks to continuous contact with the private sector, the market situation during the implementation of the plan was better understood. With a yearly analysis of the market situation, rapid changes in the sectors have been identified. A re-evaluation of the initial plan towards these developments gave positive results as the country had the opportunity to re-orientate or in some cases replace some of the activities by alternative ones that will respond better to the new situation. This ensures keeping an effective use of funds. Moreover, sub-sector targeted awareness campaigns have been useful to identify additional potential beneficiaries for the activities in the plan. It also became clear that when several agencies are working together, activities from one agency can contribute to success or failure of the activities from another agency. As an example, during 2006 in Brazil the training sessions led by GTZ have been useful fora to UNDP to promote the recovery project and to identify additional potential eligible companies to participate. Another lesson is that the implementation of the National Plan allowed closer coordination between the establishment and use of policies and the implementation of projects. Through the implementation of the plan potential improvements for the legislation have been identified.

(h) In Colombia, the establishment of formal agreements between the Ministry of Environment and institutions with roles in the MYA was necessary to ensure formal mandates that will allow sustainability after the plan is completed. Two examples of this are the certification process implemented with the National Technical Certifying Bodies, or the training done in partnership with the Technical Institute. The strategy for strengthening regulations has made it possible to guarantee that the projects and activities for the elimination of ODSs have better institutional support. From the experience of applying them it appears necessary to continually review the efficiency of each regulation and generate adjustments to address its effects. Another important lesson is that the establishment of regional offices to implement the plan is having a positive impact in the execution of the plan as many activities can be done in parallel in different places with different market situations. This has also enhanced the knowledge of the particular situations in the field and increased the number of beneficiaries covered by the plan.

(i) The sets of activities planned for a particular year have in some countries changed, in order to react to new circumstances and information, as it is foreseen under the flexibility clause in MYA. Declaring tranches as completed depending on the completion of activities planned for them, would be difficult, as some activities may very well never be completed because they were dropped while others were added. Instead of focusing annual progress reporting on individual tranches, it would be more meaningful to report on cumulative progress achieved for the plan as a whole, tracking what has been achieved and how to re-orient some of the planned activities if necessary.

2. UNIDO

(a) The appropriate industrial associations and line ministries are taking part in the decision making process. This ensures proper implementation of the project in P.R. China. The planned involvement of local Environment Protection Bureaus will increase the chance for sustainability (CPR/REF/44/INV/419 and 420; CPR/REF/47/INV/438).

(b) The customs authorities in Argentina have been involved in the development and operation of the computer based ODS licensing system. This enabled good cooperation with the phase-out projects and helped to

achieve their objectives. It has been very useful that a training project was approved prior to the approval of the NPP so the activities could take up momentum fast. The availability of local representatives and service support within the country has been one of the major criteria for selecting equipment suppliers. It was also very important that local equipment suppliers were identified and selected wherever it was possible (ARG/PHA/42/INV/138 and ARG/PHA/47/INV/147, National CFC Phase-out Plan, Argentina (1st and 2nd tranche**)**.

(c) In Mexico, part of the funding was used for upgrading the facilities, hiring and training the staff for the implementation and monitoring of the project. So, sufficient human resources are available to implement the project. The cooperation with the I.A. is very close and fruitful. The strong Government support and management structure as well as the effective public awareness are very important elements for the sustainability of the phase-out (MEX/PHA/42/INV/120 and MEX/PHA/45/INV/123, National CFC Phase-out Plan, Mexico (1st and 2nd tranche).

(d) The collaboration of the Ozone Office (NOPIU) with the Albanian Refrigeration Association was one of the factors to finish the training of technicians in time. To give NOPIU the duty of PMU increased focus on results to be achieved and reduced bureaucratic delays. A memorandum of understanding between the Environment Ministry and the Customs Authorities provided a good base for continuous cooperation for customs training. The accurate assessment of the country's needs was of vital importance to ensure the correct type of equipment, taking into account industry associations' experiences with specific types of equipment and suppliers. The participation of local environmental inspectors, industry associations and national experts in data collection is very helpful. Custom works with risk profiles placing CFCs in the red channel and using harmonized system of tariff codes with ASYCUDA. This helps to prevent illegal trade. The increase of CFC price has lowered the incentive for using it with HFC 134a equipment (ALB/PHA/39/INV/10).

(e) In Nigeria, due to the efforts of the NOU, the relation with customs authorities was improved, as became evident in the recent technical workshop where customs representatives participated in order to know the industry and to improve customs functioning for ODS phase-out. There is a UNEP brochure for alternative solvents, which is relatively old and contains traditional alternatives such as TCE and PCE which have a toxicity problem. There is also SNAP, an approved list of alternative solvents by US EPA. Practical guideline is only available from an industry consortium in Japan, in Japanese language. Accordingly study tour was organized to obtain alternative trends in US and Europe. There is a plan to organize a study tour to Japan in the 3rd tranche to learn about the trends in Asia. Verification was difficult during the first tranche as the selected chartered accountant was not familiar with ODS matters and relevant institutes were not well coordinated with NOU. However, the verification of the 2nd tranche was smoothly conducted because of the experience gained for the 1st tranche. So far, sustainable phase-out has been confirmed. This is because of MLF assistance, extremely high prices of ODS solvents, and awareness activity conducted by NOU (NIR/SOL/46/INV/113).

(f) In Romania, it was required to modify the regulation to hire staff in the NOU. Accordingly it took longer time to establish the PMU. Treatment of un-recyclable CFC is not clearly determined (ROM/PHA/45/INV/30).

(g) Imports of mislabeled refrigerant and introduction of drop-in refrigerant are daily issues in Sudan. However, it has so far been managed by cooperation between customs and the NOU. Recovery exercise is well settled. The unsolved issue is the treatment of un-recyclable CFCs (SUD/PHA/44/INV/18).

(h) In Venezuela, the reclamation facility provided under MLF was quite old-fashioned. Introdution of drop-in refrigerant may be carefully considered. Management of stockpiling may need to be addressed. So far industrial level CFC usage has been reduced as planned (VEN/PHA/42/INV/98 (1st tranche) and VEN/PHA/45/INV/105 (2nd tranche).

3. WORLD BANK

(a) The following lessons learned relate to National and Sector Phase-Out Plans in Indonesia, Malaysia, Philippines, Thailand and Vietnam.

(b) There is a time lag in implementing project activities and commencing disbursement under sector and national plans because of the departure from traditional project execution to country-based implementation which requires setting up the institutional mechanisms and enabling environment between various agencies.

(c) Enabling the improvement of servicing practices by service shops and allowing them to properly handle a new generation of refrigeration and MAC equipment should not require large financial resources. High transaction costs and lack of buy-in (sustainability) were characteristic of some of the projects under the traditional, or older approach to deliver assistance to the servicing sector. The traditional approach focused on generalized training and batch procurement of equipment, usually from external suppliers for an estimated number of service shops with limited tailoring of tools and equipment to specific needs. This approach was proven to be less effective, since service shops had no involvement in the equipment selection process. Moreover, bulk procurement had the risk of relying on international manufacturers that did not have strong service networks within the country. This type of procurement does not promote a direct and long-term relationship between buyers and sellers. Commercial practice (i.e. utilizing the existing market network and commercial relationships between suppliers and service shops), upon which the servicing sector approach in the Thailand, Philippines and Malaysia NCPPs is based, however, has allowed financial resources to be utilized in a more targeted, efficient and effective manner by taking advantage of existing market mechanisms and commercial relationships.

(d) A market-based approach to implementation can overcome some of the trust issues the private sector has with government by utilizing existing supply and distribution chains to deliver subsidies and promote the use of tools and equipment required for good practice. It also eventually promotes a competitive, cost-effective alternative to delivering subsidies once a group of suppliers in a country become established and begin vying for clients.

(e) The requirement in the voucher scheme that the level of subsidy is kept at a percentage of the median cost of tools and equipment did not prevent shops to come forward and participate in the voucher scheme. Because shops are required to put in their own funds to cover part of the equipment cost, there is an incentive for service shops to get the best products at the most reasonable price to them. This voucher scheme has promoted competition among suppliers and a sense of ownership of equipment by shops as they make their own procurement decision. The price of equipment items has come down significantly during the last few years, and new equipment manufacturers have decided to enter into the market.

(f) Based on the experience gained to date from the implementation of the voucher scheme, it appears that it has provided sufficient incentives to all stakeholders in the program. More service shops were identified and taken into the program within a short time period through the existing market network. Transaction costs for managing this scheme have been shared by equipment suppliers. More service shops are willing to come forward as most transactions are carried out through existing business relationships. The program has introduced market competition as proven by the significant reduction of the prices of service equipment and more suppliers have entered into the market.

(g) When tackling a comprehensive phase-out programme with a guaranteed amount of external funding, that involves a number of ministries and agencies with vested interests, the “rules of the game” as well as targets, outputs and responsibilities must be made clear in advance of implementation through, for example, project operation policy guidelines and memoranda of understanding.

(h) ODS sector and national plans have, in practice, served to propel policy action, in that once government support for the plans is established, support for policy reform or formulation quickly follows. In the case of Vietnam, the Government put into place an import-export control system six months after approval of the NCPP. Transportation authorities in both Thailand and the Philippines have put into place MAC

inspection requirements in existing annual vehicle inspection regulations. Both countries have also already instituted measures to ban certain CFC-based MDIs.

(i) When introducing an implementation approach based on market-based mechanisms, such as the voucher scheme, it is critical that the approach follows as closely as possible existing market mechanisms and relationships and avoids the introduction of too many administrative steps and actors which can lead to uncertainty in the market, delays in implementation and opens the door for possible anomalies, thus requiring more oversight due to the large number of transactions.

(j) Applying overall Government priorities in the execution of national and sector plans promotes sustainability and buy-in. In the case of the Philippines, the Government decided to pursue a decentralized approach to implementing the NCPP in line with its overall mainstreaming goal to ensure sustainability in environmental actions. Thus, regional and local environment management bureaus were trained to manage the voucher scheme in their regions/provinces and the number of service shops they assist and vouchers processed count towards evaluation of their performance. A decentralized approach to implementation will, however, engender some initial delays to build capacity, set up processes and obtain management clearances.

(k) It was reported during NCPP implementation in Thailand that high levels of blends and adulterated refrigerants were being circulated and used in the servicing sector which was feared by the Government to interfere with the distribution, effective use and monitoring of newly purchased recovery and recycling equipment. The NCPP Project Management Unit determined that it would be too difficult to depend on servicing shops to screen refrigerants primarily because they are not equipped to do so. It thus decided to match an identified need in the servicing sector with available services in a servicing subsector, MAC inspection, which was created through the NCPP. Private refrigerant inspection stations which were provided with refrigerant identifiers under the MAC inspection will serve as depots where service shops can take their refrigerant cylinders to be tested on commercial terms. If service shops are skeptical about the purity or content of refrigerants they purchase from suppliers, they will be able to have them tested and then be able to make choices about where they will purchase refrigerants in the future. This approach was devised as a way to gradually force suppliers, distributors and perhaps importers to ensure purity of the gas they are marketing.

4. UNEP/ROAP

(a) This compilation of lessons learned has been based on feedback received during the network meetings, project implementation undertaken by UNEP in different countries in the region and the compliance missions undertaken by CAP team for providing compliance assistance to the countries.

(b) Technology choices are made based on interaction with industry participants. Sometimes, the individual company needs are not adequately addressed by the technology supplier. For example, in certain foam applications, the technology for continuous manufacturing facilities or high volume output manufacturing facilities have been adopted by low volume manufacturing facilities. This could result in difficulties in operating the new technologies.

(c) In the era of sectoral projects and National Phase-out Plans (NPPs), at times technology choices are made based on package based approach and not individual project based approach. This may be cost effective and have greater implementation ease. But the down side is choice of inappropriate technology by the beneficiaries. Initially, this may not be recognized as the enterprises are getting new equipment free of cost. As time progresses, these issues become more apparent.

(d) Setting up a PMU is an important part of the Phase out Plan implementation. PMU, as an autonomous institution, should act as a project implementation and facilitation arm to the National Ozone Unit and should directly be guided by the Ozone Unit. Given the diversity of the ODS using industries, it is important that networking with key stakeholders, who may participate on a need basis, is taken up by PMU. Linkage with other NOUs and implementing agencies can also be maintained by the PMU to be abreast

with the developments of phase out plan in other regions. With all of these, the PMU must be well equipped with knowledgeable staff and infrastructure and should be well compensated.

(e) Many a times, the regulatory powers and authorities rest with different agencies in the country. Sometimes these are decentralized at regional level. Thus, their active involvement in ensuring phase-out of ODS in the respective National Phase-out Plans becomes critical. Forging of multiparty agreement with the different agencies will lead to the successful implementation of Phase out Plan through exchange of information, technical expertise and other related issues.

(f) A Memorandum of Understanding between the Ministry of Environment and Customs is an effective way of establishing formal ties and cooperation for monitoring imports of ODS and ODS using products. In many countries, which are import dependent, customs plays a key role in facilitating compliance. Through training and network building with local authorities dealing with ODS trade, the customs officers will be equipped with proper knowledge and skills in combating illegal shipments of ODS. Cooperation of customs at a regional level will also be useful in combating illegal trade issues and learning on new trade routes. Involvement of RILO and other regional arms of the World Customs Organization (WCO), like the Regional Office of Capacity Building, can be very helpful.

(g) Clear plans relating to mechanisms beyond 2010 are not available with the NOUs. They are currently busy with their phase-out projects including sectoral plans and compliance targets. Beyond 2010, they would also have to deal with consumption of HCFC, Methyl Bromide and TCA. Regional Networks play a key role in identifying ODS phase-out sustainability issues and facilitating information exchange and regional cooperation.
