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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Seventy-third Meeting  
Paris, 9-13 November 2014

**PROGRESS REPORT OF UNDP AS AT 31 DECEMBER 2013**

1. This document presents the progress report of UNDP as of 31 December 2013<sup>1</sup>, and consists of:

Executive Summary

- Part I: Implementation progress as at 31 December 2013 (cumulative)  
Part II: Project implementation progress in 2013  
Parts III: Comments and recommendations made by the Secretariat  
Annex I: Project implementation data in 2013 by country

**Executive Summary**

2. The following is a summary of progress in the implementation of projects and activities implemented by UNDP up to 31 December 2013, for the year 2013 and cumulative since 1991:

- (a) **Phase-out:** In 2013 alone, 184.2 ODP tonnes of consumption were phased out and an additional 568.8 ODP tonnes of consumption were approved for phase-out. Since 1991, 65,375 ODP tonnes of consumption had been phased out, of an expected total of 66,583 ODP tonnes from projects approved (excluding cancelled and transferred projects);
- (b) **Disbursements/approvals:** In 2013, US \$38.55 million was disbursed and US \$30.08 million was planned for disbursement based on the 2012 progress report representing a rate of disbursement of 128 per cent of that planned. Cumulatively, US \$585.69 million had been disbursed out of the total US \$657.23 million approved for disbursement (excluding agency fees). This represents a rate of disbursement of 89 per cent. In 2013, US \$34.59 million was approved for implementation;

<sup>1</sup> The progress report is attached. The data has been included in the Consolidated Progress Report database that is available upon request.

- (c) **Cost-effectiveness (in ODP):** Since 1991, the average cost-effectiveness of investment projects approved leading to a permanent reduction in consumption was US \$8.72/kg. The average cost-effectiveness of investment projects per ODP tonne was US \$7.45/kg for completed projects and US \$45.89/kg for ongoing projects<sup>2</sup>;
- (d) **Number of projects completed:** In 2013, 56 projects were completed. Since 1991, 2,011 projects of the 2,152 projects approved for UNDP (excluding closed or transferred projects) were completed. This represents a completion rate of 93 per cent;
- (e) **Speed of delivery - investment projects:** Projects that were completed in 2013 were completed on average 43 months after their approval. Since 1991, the average time for completion of investment projects has been 33 months after their approval. First disbursements under these projects occurred, on average, 13 months after they had been approved;
- (f) **Speed of delivery - non-investment projects:** Projects that were completed in 2013 were completed on average 35 months after their approval. Since 1991, the average time for completion of non-investment projects has been 40 months after their approval. First disbursements under these projects occurred, on average, 13 months after they had been approved;
- (g) **Project preparation:** Of the 468 project preparation activities approved by the end of 2013, 463 have been completed. In 2013, six projects were completed leaving five ongoing;
- (h) **Implementation delays:** There were a total of 78 ongoing investment projects under implementation at the end of 2013. These projects, on average, are experiencing a delay of 20 months. However, projects classified as “projects with implementation delays” that are subject to the procedures of project cancellation amount to two projects (as multi-year agreements (MYAs) are not subject to those procedures); and
- (i) **MYAs:** In 2013, UNDP was implementing three MYAs for CFC phase-out, one MYA for methyl bromide (MB) consumption and 43 MYAs for HCFC phase-out management plans (HPMPs). Since 1991, 107 MYAs have been approved and 60 MYAs have been completed.

**Part I: Implementation progress as at 31 December 2013 (cumulative)**

3. As of that date, the Executive Committee had approved approximately US \$745.98 million consisting of US \$657.23 million for the implementation of investment and non-investment projects and US \$88.75 million for agency fees and administrative support, as shown in Table 1. In 2013, 43 new projects and activities were approved. This level of funding is expected to result in the phase-out of 66,583 ODP tonnes of ODS consumption.

**Table 1: Approved funding by sector for UNDP as at 31 December 2013**

Sector	Funding (US \$)
Aerosol	26,689,855
Destruction	2,219,129
Foam	172,150,585
Fumigants	20,084,940

<sup>2</sup> The higher cost-effectiveness for ongoing projects is largely due to the lower ODP values of HCFCs but also due to the means of assigning phase-out by agencies.

Sector	Funding (US \$)
Halon	4,998,776
Multiple sectors	40,000
Process agent	1,286,923
Phase-out plan	184,142,724
Refrigeration	134,194,317
Several	47,446,638
Solvents	63,554,923
Sterilant	417,628
<b>Sub-total</b>	<b>657,226,438</b>
Administrative cost	88,751,645
<b>Grand total</b>	<b>745,978,083</b>

4. A summary of the status of projects implemented by UNDP, by category, is presented in Table 2.

**Table 2: Status of project implementation by project type**

Type	Number of projects*			Funding (US \$)			
	Approved	Completed	% completed	Approved	Disbursed	Balance	% disbursed
Country programme	22	22	100	1,628,797	1,628,797	0	100
Demonstration	35	24	69	17,776,544	14,478,210	3,298,334	81
Institutional strengthening (IS)	188	160	85	38,415,394	33,878,253	4,537,141	88
Investment	1,157	1,079	93	544,837,520	484,735,437	60,102,083	89
Project preparation	468	463	99	18,970,272	18,190,161	780,111	96
Technical assistance	254	235	93	34,007,422	31,188,797	2,818,625	92
Training	28	28	100	1,590,489	1,590,489	0	100
<b>Total</b>	<b>2,152</b>	<b>2,011</b>	<b>93</b>	<b>657,226,438</b>	<b>585,690,144</b>	<b>71,536,294</b>	<b>89</b>

\*Excludes closed and transferred projects.

5. Table 3 presents an overview of status of project implementation by year<sup>3</sup>. All projects and activities approved between 1991 and the end of 1999 have now been completed.

**Table 3: Status of project implementation by year**

Year	Number of projects*			Funding (US \$)			
	Approved	Completed	% completed	Approved	Disbursed	Balance	% disbursed
1991	15	15	100	1,149,032	1,149,032	0	100
1992	67	67	100	8,619,002	8,619,002	0	100
1993	57	57	100	13,204,712	13,204,712	0	100
1994	147	147	100	49,481,581	49,481,581	0	100
1995	117	117	100	29,599,446	29,599,446	0	100
1996	83	83	100	27,838,805	27,838,805	0	100
1997	188	188	100	44,056,257	44,056,257	0	100
1998	172	172	100	31,305,010	31,305,010	0	100
1999	204	204	100	35,896,884	35,896,884	0	100

<sup>3</sup> The data is presented according to the year when a project was approved by the Executive Committee. It treats all approvals (investment and non-investment projects) equally (i.e., an investment project or a funding tranche of an MYA of US \$1 million is considered one project, same as a country programme preparation of US \$30,000). Key indicators from the annual summary are: the percentage of projects completed, ODP phased out, and percentage of funds disbursed. In reviewing the data on funds disbursed, it should be noted that there are three types of disbursements: during implementation, after implementation and for retroactively-financed projects.

Year	Number of projects*			Funding (US \$)			
	Approved	Completed	% completed	Approved	Disbursed	Balance	% disbursed
2000	149	148	99	31,276,538	31,267,411	9,127	100
2001	179	179	100	35,292,271	35,292,271	0	100
2002	117	116	99	44,318,534	44,229,501	89,033	100
2003	64	64	100	36,340,142	36,336,530	3,612	100
2004	69	68	99	24,832,822	24,692,459	140,363	99
2005	53	51	96	29,125,979	27,668,143	1,457,836	95
2006	62	62	100	15,827,083	15,753,496	73,587	100
2007	54	52	96	12,159,660	11,796,902	362,758	97
2008	84	81	96	23,802,300	22,826,547	975,753	96
2009	93	84	90	13,800,798	12,145,192	1,655,606	88
2010	43	31	72	20,043,533	18,613,077	1,430,456	93
2011	63	24	38	60,726,968	48,284,210	12,442,758	80
2012	29	1	3	33,934,953	15,372,216	18,562,737	45
2013	43	0	0	34,594,128	261,460	34,332,668	1
<b>Total</b>	<b>2,152</b>	<b>2,011</b>	<b>93</b>	<b>657,226,438</b>	<b>585,690,144</b>	<b>71,536,294</b>	<b>89</b>

\*Excludes closed and transferred projects.

## Part II: Project implementation progress in 2013

6. The Secretariat reviewed the status of implementation on a country-by-country basis taking into account implementation delays that have occurred with respect to planned completion dates that had been reported in 2013, the potential impact of these delays on phase-out and the rate of planned disbursements. UNDP had completed 68 per cent of the projects they had planned to complete in 2013 and met 48 per cent of the phase-out target planned. UNDP had planned disbursements in 68 countries or regions, and achieved an overall rate of disbursement of 128 per cent in 2013.

7. This part of the progress report summarises progress and financial information on the following ongoing projects<sup>4</sup>:

- (a) CFC- and CTC-related projects;
- (b) Projects for the phase-out of consumption of MB;
- (c) Projects related to metered-dose inhalers (MDIs), ODS waste disposal, chillers, halon banking and refrigerant management plans (RMPs);
- (d) Projects related to the phase-out of HCFCs, including project preparation, demonstration projects, and HPMPs;
- (e) IS projects; and
- (f) Administrative costs.

<sup>4</sup> Ongoing projects are all projects that have been approved by the Executive Committee and were under implementation as of 31 December 2013. Key indicators of progress include: percentage of funds disbursed and percentage of projects that have begun disbursing funds; funding expected to be disbursed by the end of the year (funds disbursed plus estimated disbursements in 2013) as a percentage of the approved funding; the average length of projected delay in implementation (project completion per proposal and currently planned date of completion); and information provided in the remarks column in the progress report database.

CFC- and CTC-related activities

8. As of 31 December 2013, a total of three MYAs for the phase-out of CFC were still ongoing. All phase-out activities associated with 59 MYAs have been completed, pending only the financial closure and the submission of project completion reports, where applicable. The ongoing CFC phase-out MYA activities are indicated in Table 4.

**Table 4: Ongoing CFC- and CTC-related MYA activities**

Country	Approved funding (US \$)	Funds disbursed (US \$)	Balance (US \$)	% disbursed	Date of completion of last ongoing tranche*	Status/issues
Haiti	150,000	0	150,000	0	Dec-14	Government, national ozone unit (NOU) and UNDP office changes; earthquake.
Maldives	85,000	85,000	0	100	Jul-14	Equipment procurement completion was expected during second quarter of 2014.
Saint Kitts and Nevis	105,000	50,000	55,000	48	Jan-14	Equipment delivery expected during second quarter of 2014.

\*MYA may include more than one tranche with different approved completion dates. The approved date of completion indicated is for the last tranche that will be completed for an MYA.

9. As of the 73<sup>rd</sup> meeting, all the CFC-related MYA activities listed in Table 4 should be completed, except for the CFC phase-out plan in Haiti to be completed in December 2014 in accordance with decision 71/11(b). UNDP advised that the zero disbursement results from the fact that the disbursements were not reflected in UNDP's financial system until the beginning of the year 2014. The project implementation is on track and is expected to be completed in December 2014.

Projects for the phase-out of consumption of MB

10. One MYA for the phase-out of the consumption of MB in Costa Rica was still ongoing. UNDP reported that the biological alternatives are being introduced at commercial scale; moreover, no use for MB was reported for the season 2013/2014 and no new import requests for MB were submitted; and the Minister of Environment announced that no more MB will be used for agricultural purposes. Follow-up activities with farmers to maintain zero consumption of MB were continued. The technical assistance is provided in areas where farmers have encountered challenges with the alternatives.

MDIs, ODS waste disposal, chillers, halon banking and RMPs*MDI projects*

11. The Executive Committee has approved six MDI investment projects amounting to US \$18.11 million. Four projects have been completed. The remaining two projects are still ongoing and experiencing implementation delays:

- (a) With respect to the plan for phase-out of CFCs in the manufacture of MDIs in India (IND/ARS/56/INV/423), UNDP indicated that the completion of the conversion projects of all enterprises was monitored for pending payments and activities, and will be completed by December 2014; and

- (b) Concerning the phase-out of CFCs in the manufacture of MDIs in Pakistan (PAK/ARS/56/INV/71), UNDP reported that GlaxoSmithKline completed most of the project activities relating to procurement and installation of equipment. The trial production was expected to be completed by the first quarter of 2014. The final commercial production was expected to commence during the second quarter of 2014. Zafa, the second beneficiary, which was not interested in pursuing the project, and returned the funds provided to it. The project is expected to be completed in December 2014.

#### *ODS waste disposal*

12. The Executive Committee has approved ten ODS disposal projects including four demonstration projects and six project preparation activities in six countries. Five project preparation activities have been completed; the ongoing ODS disposal activities are indicated in Table 5.

**Table 5: Ongoing ODS disposal activities**

Country/project code	Approved funding (US \$)	Funds disbursed (US \$)	Balance (US \$)	Per cent of funds disbursed	Status
Colombia (COL/DES/66/DEM/82)	1,195,000	192,291	1,002,709	16	The terms of reference for test burns were completed. The quotations for kilns adaptation are being received from destruction facilities. The project is planned for completion in April 2015.
Cuba (CUB/DES/62/DEM/46)	525,200	236,237	288,963	45	The equipment has been procured and delivered at the cement kiln. The project is planned for completion in January 2016.
Georgia (GEO/DES/69/DEM/33)	55,264	0	55,264	0	The verification of ODS waste amounts had been initiated in the second half of 2013. A joint tender (for persistent organic pollutants/ODS waste) for waste export was announced end of 2013. The service supplier had been selected and the initial mission by the supplier was expected in April 2014. The project is planned for completion in April 2015.
Ghana (GHA/DES/63/DEM/33)	198,000	110,167	87,833	56	Collection centre for ODS has been set up. Quantities of substance collected are lower than expected in the planning phase. UNDP and GEF are discussing on possible joint export of ODS waste to reduce costs. The project is planned for completion in December 2014.

13. UNDP is implementing one ODS disposal preparation activity in Brazil (BRA/DES/57/PRP/288) which resulted in a project submitted to the 72<sup>nd</sup> meeting.

#### *Chiller projects*

14. The Executive Committee has approved four chiller demonstration projects amounting to US \$2.98 million. Two chiller projects have been completed. The two projects under implementation include the demonstration projects for integrated management of the centrifugal chiller sub-sector, focusing on application of energy-efficient CFC-free technologies for replacement of CFC-based chillers in Brazil and Colombia. Information on these projects is presented in Table 6.

**Table 6: Ongoing chiller project activities**

Country/project code	Approved funding (US \$)	Funds disbursed (US \$)	Balance (US \$)	Per cent of funds disbursed	Status
Brazil (BRA/REF/47/DEM/275)	1,000,000	32,235	967,765	3	The process to hire a company that will support the implementation of energy-efficient activities has been finalized. The project is to be completed and funds balance returned by the last meeting in 2017 as approved by the Executive Committee.
Colombia (COL/REF/47/DEM/65)	1,000,000	510,250	489,750	51	The workshop to promote energy-efficient alternatives to CFC-based chillers was held. A memorandum of agreement was signed with beneficiary companies to replace CFC-based chillers and the terms of reference for district cooling were prepared. The project is to be completed and funds balance returned by the last meeting in 2017 as approved by the Executive Committee.

15. The Executive Committee may wish to request UNDP to report to the 74<sup>th</sup> meeting on the project implementation progress and the disbursement rates of approved funds for the ongoing chiller projects in Brazil (BRA/REF/47/DEM/275) and Colombia (COL/REF/47/DEM/65).

#### *Halon banking*

16. The Executive Committee has approved five halon banking technical assistance projects in four countries. So far, four projects have been completed and one project is still under implementation.

17. Only US \$7,085 has been disbursed out of US \$60,000 approved for the halon consumption phase-out: technical assistant programme and halon recycling and recovery equipment in Chile (CHI/HAL/51/TAS/164) which was approved in 2007. The planned milestone of hiring the international expert was completed and the first mission was conducted. Several meetings were held with halon users and the national authorities. The final report is being revised by the NOU. The final completion date approved by the Executive Committee is January 2014.

#### *RMPs*

18. The Executive Committee has approved 91 RMP projects including 88 technical assistance and three training projects in 47 countries. So far, 88 projects have been completed (85 technical assistance and three training projects). Three technical assistance projects approved are still under implementation, which include technical assistance for the refrigeration service and mobile air-conditioning (MAC) sectors in Brunei Darussalam, an incentive programme for the commercial and industrial end-user refrigeration in Sri Lanka, and an awareness and incentive programme in Maldives. These projects were planned for completion in July 2014. The review of these projects did not reveal major issues in their implementation.

19. The Executive Committee may wish to note that the cumulative fund balance estimated at US \$208,291 has been obligated by UNDP for the three RMP activities in Brunei Darussalam (BRU/REF/44/TAS/10), Maldives (MDV/REF/38/TAS/05) and Sri Lanka (SRL/REF/32/TAS/15).

#### Projects related to the phase-out of HCFCs

##### *HPMP preparation*

20. The Executive Committee has approved US \$7.28 million for 83 project preparation activities in 36 Article 5 countries to address HCFC control measures. The implementation of these activities resulted in the approval of stage I of HPMPs in 44 Article 5 countries. Seventy-nine project preparation activities have been completed and the remaining four project preparation activities are still under implementation in Bolivia (Plurinational State of)<sup>5</sup>, Costa Rica, Cuba and Paraguay<sup>6</sup>.

##### *HCFC demonstration projects*

21. The Executive Committee has approved nine HCFC demonstration projects including six in the foam sector, two in the refrigeration sector and one in the solvent sector. Four demonstration projects have been completed. The remaining five projects are still under implementation in two countries, and include:

- (a) The validation/demonstration of low-cost options for the use of hydrocarbons as foaming agent in the manufacture of polyurethane foams in Egypt (EGY/FOA/58/DEM/100);
- (b) The demonstration project for conversion from HCFC-22 to HFC-32 technology in the manufacture of commercial air-source chillers/heat pumps at Tsinghua Tong Fang Artificial Environment Co. Ltd. in China (CPR/REF/60/DEM/498);
- (c) The demonstration project for conversion from HCFC-22 technology to ammonia/CO<sub>2</sub> technology in the manufacture of two-stage refrigeration systems for cold storage and freezing applications at Yantai Moon Group Co. Ltd. in China (CPR/REF/60/DEM/499);
- (d) The demonstration project for the conversion from HCFC-22/HCFC-142b technology to CO<sub>2</sub> with methyl formate co-blowing technology in the manufacture of extruded polystyrene foam at Feininger (Nanjing) Energy Saving Technology Co. Ltd. in China (CPR/FOA/64/DEM/507); and
- (e) The demonstration project for the conversion from HCFC-141b-based technology to iso-paraffin and siloxane (KC-6) technology for cleaning in the manufacture of medical devices at Zhejiang Kindly Medical Devices Co. Ltd. in China (CPR/SOL/64/DEM/511).

22. The review of the 2013 progress report shows that these projects are progressing and are all planned for completion in 2014.

##### *HPMPs*

23. The Executive Committee has approved HPMP activities for UNDP in 44 countries valued at US \$172.79 million in principle for which US \$132.21 million has been approved for tranche activities.

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<sup>5</sup> The funds balance of the project preparation for Bolivia (Plurinational State of) for HCFC phase-out investment activities (rigid polyurethane foam applications) has been fully obligated. This project should have been reported completed in 2013 as per decision 70/7(b)(iii).

<sup>6</sup> As per decision 71/5(c), project preparation activities for Costa Rica, Cuba and Paraguay were reinstated.



The Executive Committee has also approved 16 HCFC individual technical assistance projects; thirteen of which have been completed. The remaining three projects are still under implementation.

24. In total, UNDP is implementing 106 HPMP tranches of 46 agreements in 44 countries; all of these agreements were approved over one year ago. Of these, funds were only disbursed for 41 agreements. Five agreements approved over one year ago and for which no disbursement has been recorded include HPMPs in Barbados, Belize, Nepal, Peru and Saint Kitts and Nevis. In addition two countries, namely Brazil and Cuba that have disbursed funds, reported a disbursement rate below 10 per cent. The difficulties that have delayed the start-up and/or MYA implementation for HPMPs are summarized in Table 7.

**Table 7: Ongoing MYA activities approved over a year ago with low/no disbursement and/or agreement not signed**

Country	Funds committed by ExCom (US \$)	Funds released including present year by ExCom (US \$)	Funds disbursed to the country (US \$)	Per cent of funds disbursed	Reasons for the low disbursement/delay
Barbados	88,000	50,000	0	0	Government internal procedures: project document/letter of agreement not signed.
Belize	66,500	60,000	0	0	Procurement process repeated several times because of limited interest from potential suppliers. Currently, the equipment has been cleared and NOU is verifying eligibility of end-users to start distribution.
Brazil*	15,506,257	7,856,257	566,681	7	Disbursement modalities (performance based payments): funds could not be disbursed despite several contracts signed and reconversion being performed.
Cuba*	1,747,527	1,287,527	42,599	3	Government and the suppliers are discussing contract details.
Nepal	84,000	42,000	0	0	Late signing of project document: agreement to be signed in January 2014 and activities to start by mid-2014.
Peru	232,671	108,000	0	0	Government internal procedures: project document/letter of agreement not signed.
Saint Kitts and Nevis	40,000	40,000	0	0	Government internal procedure: project document/letter of agreement not signed.

\* HPMPs for Brazil and Cuba have been submitted to the 73<sup>rd</sup> meeting.

25. The Executive Committee may wish to request additional status reports to the 74<sup>th</sup> meeting to monitor the signing of the project document/letter of agreement and the disbursement rates of approved funds for three of these HPMPs, namely in Barbados, Peru and Saint Kitts and Nevis, and the disbursement rates of approved funds in Belize and Nepal.

#### IS projects

26. The Executive Committee has approved 188 IS projects in 25 countries that are implemented by UNDP. One-hundred-and-sixty IS projects have been completed and 28 projects are still ongoing in 22 countries including: Argentina, Bangladesh, Brazil, Chile, China, Colombia, Costa Rica, Cuba, Georgia, Ghana, India, Indonesia, Iran (Islamic Republic of), Lebanon, Malaysia, Nigeria, Pakistan, Panama, Sri Lanka, Trinidad and Tobago, Uruguay, and Venezuela (Bolivarian Republic of). UNDP has renewed 11 IS activities during 2013. UNDP has reported less than 10 per cent disbursements for three IS projects that were approved prior to the 70<sup>th</sup> meeting, as shown in Table 8.

**Table 8: Ongoing IS projects with low disbursements**

Country/Project code	Project status	Reasons for the low disbursement/delay
Brazil (BRA/SEV/66/INS/297)	The project document was signed and the IS activities were initiated. Moreover, the national consultant was hired to provide support to the NOU.	Late signing of the agreement.
Georgia (GEO/SEV/69/INS/34)	The next IS phase has started. The ODS data for 2012 has been collected and reported in 2013 to Multilateral Fund and the Ozone Secretariats.	Late signing of the agreement (April 2014).
Lebanon* (LEB/SEV/68/INS/77)	The NOU monitored the implementation of national regulations, including licensing system, and participated in the regional and international meetings on technical and policy issues. The data for 2012 has been collected and the activities are progressing well as reported.	Late signing of the agreement.

\* An IS project for Lebanon has been submitted to the 73<sup>rd</sup> meeting.

27. The Executive Committee may wish to request UNDP to provide a report to the 74<sup>th</sup> meeting on the implementation of the activities and the disbursement rates of approved funds for the IS projects in Brazil (BRA/SEV/66/INS/297) and Georgia (GEO/SEV/69/INS/34).

#### Administrative costs

28. Of the net US \$657,226,438 approved for project implementation, US \$88,751,645 has been disbursed for administrative costs resulting in an overall administrative cost ratio of 13.5 per cent since 1991. In 2013, of the US \$34,594,128 approved, US \$4,514,301 has been disbursed for administrative costs resulting in an overall administrative cost ratio of 13.05 per cent.

### **Part III: Comments and recommendations of the Secretariat**

#### Comments

##### *Implementation delays*

29. There are two projects with implementation delays, after taking into consideration any projects that are no longer subject to monitoring, related to decisions of the Executive Committee. These projects can be found in Appendix I of Annex III of the consolidated progress report (UNEP/OzL.Pro/ExCom/73/10). The Executive Committee may wish to note that UNDP will report to the 74<sup>th</sup> meeting on two projects with implementation delays.

##### *Streamlining in the annual progress and financial report*

30. The Secretariat appreciated UNDP's efforts and its ability to describe the activities by milestones in the Remarks column in line with decision 70/7(b)(i)<sup>7</sup>. However, it often appeared that there was no implementation issue. There are only a few cases where project implementation impediments were identified. For a smooth implementation of decision 70/7(b)(i), UNDP and the Secretariat agreed on a reporting format taking into account UNDP projects' specifics. The new reporting format is presented below:

<sup>7</sup> The Executive Committee requested the implementing agencies when submitting their progress reports to confirm whether the activities reported for the review period represented all those planned for it, or systematically to provide for each project the list of activities planned but not implemented, the reasons for the delay in implementing the activities, the action plan for resolving the issues, and whether or not the delay in implementing specific activities would have an impact on the project completion date in the Remarks column of their annual progress and financial reports.

Project document signed (yes/no and date if applicable): \_\_\_ Missions undertaken (actual/planned): \_\_\_ TORs for consultants/subcontracts/benchmark agreements completed (actual/planned): \_\_\_ Contract agreements signed: \_\_\_ First disbursement date (actual/planned): \_\_\_ Short narrative description of progress made (actual/planned) \_\_\_ Any delays/problems (yes/no): \_\_\_ If yes, reasons for delay & action plan to resolve \_\_\_ New estimated completion date (if applicable): \_\_\_.

*Data discrepancies*

31. There remain data inconsistencies between the data in the Secretariat's Inventory of Approved Projects and the data in UNDP's progress report, including:

- (a) Thirteen projects in the progress report which have adjustments that are different from the Inventory;
- (b) Fifteen projects that are classified as financially completed but have a balance from US \$456 to US \$102,702; and
- (c) Five projects that have overruns that are not allowed by decision 17/22.

32. The discrepancies with respect to financial matters have been or will be resolved in the context of the annual reconciliation of account. The other data discrepancies will be addressed in the submission of the 2014 annual progress and financial reports.

*Status reports requested at the 72<sup>nd</sup> meeting for submission to the 73<sup>rd</sup> meeting*

33. The Secretariat reviewed the status reports requested at the 72<sup>nd</sup> meeting in the light of the updated information provided in the 2013 progress report to ascertain if the issues identified at the 72<sup>nd</sup> meeting had been resolved. The issues raised at that meeting continue to be the subject of an updated report.

**RECOMMENDATIONS**

34. The Executive Committee may wish:

- (a) To note:
  - (i) The progress report of UNDP as at 31 December 2014 as contained in document UNEP/OzL.Pro/ExCom/73/12;
  - (ii) That UNDP will report to the 74<sup>th</sup> meeting on two projects with implementation delays as indicated in Appendix I of Annex III of the consolidated progress report (UNEP/OzL.Pro/ExCom/73/10);
  - (iii) That the cumulative fund balance estimated at US \$208,291 has been obligated by UNDP for the three refrigerant management plan (RMP) activities in Brunei Darussalam (BRU/REF/44/TAS/10), Maldives (MDV/REF/38/TAS/05) and Sri Lanka (SRL/REF/32/TAS/15);
- (b) To request UNDP to submit additional status reports to the 74<sup>th</sup> meeting to monitor:
  - (i) The project implementation progress and the disbursement rates of approved funds for the demonstration projects for integrated management of the centrifugal chiller sub-sector, focusing on application of energy-efficient CFC-free

technologies for replacement of CFC-based chillers in Brazil (BRA/REF/47/DEM/275) and Colombia (COL/REF/47/DEM/65);

- (ii) The signing of the project document/letter of agreement and the disbursement rates of approved funds for the HCFC phase-out management plans (HPMPs) in Barbados, Peru and Saint Kitts and Nevis, and the disbursement rates of approved funds in Belize and Nepal; and
- (iii) The implementation of the activities and the disbursement rates of approved funds for the institutional strengthening projects in Brazil (BRA/SEV/66/INS/297) and Georgia (GEO/SEV/69/INS/34).

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Annex I

UNDP PROJECT IMPLEMENTATION BY COUNTRY

Country	Phased out in 2013	Percentage of planned phase-out achieved in 2013	Estimated funds disbursed in 2013 (US \$)	Funds disbursed in 2013 (US \$)	Percentage of funds disbursed over estimation in 2013	Percentage of planned projects completed in 2013
Angola	0.0		33,108	35,619	108%	
Argentina	0.0		109,878	147,995	135%	
Armenia	0.0		168,932	415,551	246%	100%
Bahamas (the)	0.0		0	0		
Bahrain	0.0		5,477	0	0%	
Bangladesh	0.0	0%	510,656	470,064	92%	33%
Barbados	0.0		10,185	0	0%	100%
Belize	0.0		24,016	0	0%	
Benin	0.0		0	0		
Bhutan	0.0		21,000	69,259	330%	100%
Bolivia (Plurinational State of)	0.0		38,258	0	0%	
Botswana	0.0		0	0		
Brazil	0.0		4,225,863	1,702,148	40%	100%
Brunei Darussalam	0.0		82,675	124,375	150%	0%
Burkina Faso	0.0		0	0		
Burundi	0.0		0	0		
Cambodia	0.0		40,000	60,000	150%	
Cabo Verde	0.0		0	0		
Central African Republic (the)	0.0		0	0		
Chad	0.0		8,786	0	0%	
Chile	0.0		235,714	213,650	91%	100%
China	12.1	100%	4,097,172	9,318,122	227%	29%
Colombia	0.0		1,275,028	1,385,669	109%	100%
Comoros (the)	0.0		0	0		
Congo (the)	0.0		0	0		
Costa Rica	14.0	100%	414,477	702,214	169%	100%
Cuba	35.0		1,049,462	666,904	64%	100%
Democratic Republic of the Congo (the)	0.0		21,274	70,607	332%	100%
Djibouti	0.0		1,721	0	0%	
Dominica	0.0		13,476	20,619	153%	100%
Dominican Republic (the)	0.0		401,407	494,950	123%	100%
Ecuador	0.0		0	0		
Egypt	21.4	57%	1,919,353	926,855	48%	20%
El Salvador	0.0		231,883	276,692	119%	
Eritrea	0.0		0	0		
Ethiopia	0.0		0	0		
Fiji	0.0		22,554	37,198	165%	
Gabon	0.0		0	0		
Gambia (the)	0.0		0	0		
Georgia	0.0		104,190	186,884	179%	100%
Ghana	0.0		185,475	158,167	85%	
Global	0.0		45,120	15,298	34%	100%

Country	Phased out in 2013	Percentage of planned phase-out achieved in 2013	Estimated funds disbursed in 2013 (US \$)	Funds disbursed in 2013 (US \$)	Percentage of funds disbursed over estimation in 2013	Percentage of planned projects completed in 2013
Grenada	0.0		531	0	0%	
Guatemala	0.0		28,145	50,048	178%	100%
Guinea	0.0		0	0		
Guinea-Bissau	0.0		932	685	73%	
Guyana	0.0		18,487	19,382	105%	
Haiti	0.0		62,591	0	0%	
Honduras	0.0		0	0		
India	0.0		4,537,418	5,376,078	118%	67%
Indonesia	2.0	5%	1,293,718	1,755,691	136%	25%
Iran (Islamic Republic of)	29.3		1,249,066	1,893,155	152%	50%
Jamaica	0.0		94,003	154,305	164%	
Jordan	0.0		0	0		
Kenya	0.0		0	0		
Kyrgyzstan	0.0		11,015	17,208	156%	
Lao People's Democratic Republic (the)	0.0		0	0		
Lebanon	12.1	100%	266,122	910,308	342%	100%
Lesotho	0.0		0	0		
Liberia	0.0		0	0		
Libya	0.0		0	0		
Malawi	0.0		0	0		
Malaysia	53.7		2,033,971	4,535,776	223%	0%
Maldives	0.0		195,342	228,416	117%	0%
Mali	0.0		12,218	23,825	195%	100%
Mauritania	0.0		0	0		
Mauritius	0.0		0	0		
Mexico	0.0		2,979,159	4,395,825	148%	100%
Mongolia	0.0		0	0		
Morocco	0.0		0	0		
Mozambique	0.0		0	0		
Myanmar	0.0		0	0		
Nepal	0.0		16,800	0	0%	100%
Nicaragua	0.0		0	0		
Niger (the)	0.0		0	0		
Nigeria	0.0		359,479	528,252	147%	50%
Pakistan	0.4	100%	218,584	186,263	85%	50%
Panama	0.0		107,272	50,857	47%	
Paraguay	0.0		115,260	27,314	24%	
Peru	0.0		140,998	12,809	9%	
Philippines (the)	0.0		50,058	0	0%	
Region: AFR	0.0		1,689	0	0%	
Region: ASP	0.0		0	0		
Region: LAC	0.0		0	0		
Republic of Moldova (the)	0.0		25,834	46,203	179%	
Rwanda	0.0		9,131	0	0%	
Saint Kitts and Nevis	0.0		38,000	0	0%	
Saint Vincent and the Grenadines	0.0		139	0	0%	
Samoa	0.0		9,840	0	0%	100%

Country	Phased out in 2013	Percentage of planned phase-out achieved in 2013	Estimated funds disbursed in 2013 (US \$)	Funds disbursed in 2013 (US \$)	Percentage of funds disbursed over estimation in 2013	Percentage of planned projects completed in 2013
Sao Tome and Principe	0.0		0	0		
Sierra Leone	0.0		4,228	0	0%	
Somalia	0.0		0	0		
Sri Lanka	0.0		251,097	202,496	81%	
Suriname	0.0		1,049	0	0%	
Swaziland	4.2	100%	32,053	86,150	269%	100%
Syria	0.0		0	0		
Thailand	0.0		0	0		
Timor-Leste	0.0		19,836	31,120	157%	0%
Togo	0.0		693	0	0%	
Trinidad and Tobago	0.0		278,067	119,194	43%	100%
Turkey	0.0		313	0	0%	
Uganda	0.0		0	0		
United Republic of Tanzania (the)	0.0		36,872	0	0%	100%
Uruguay	0.0		139,788	261,722	187%	100%
Venezuela (Bolivarian Republic of)	0.0		122,766	139,083	113%	100%
Viet Nam	0.0		0	0		
Yemen	0.0		0	0		
Zambia	0.0		24,392	0	0%	
Zimbabwe	0.0		0	0		
<b>Grand Total</b>	<b>184.2</b>	<b>48%</b>	<b>30,084,096</b>	<b>38,551,005</b>	<b>128%</b>	<b>68%</b>

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*Empowered lives.  
Resilient nations.*

**Executive Committee of the Multilateral Fund  
for the Implementation of the Montreal Protocol**

# UNDP Annual Progress and Financial Report Narrative: 1991-2013

72nd Meeting, 12-16 May 2014, Montreal



## I. INTRODUCTION

The following narrative is based on a database of 2247 projects funded by the Multilateral Fund, which contains basic information on each project and their status of implementation as of 31 December 2013. However, some updates of activities which took place during the first quarter of 2014 are also included for information purposes. The database results in 11 summary tables which can be found at the end of this report, and which are referred to throughout this report.

As can be seen in the following sections, UNDP has disbursed US\$ 585,690,144 (89%) of the US\$ 657,226,441 million worth of projects that were approved under the Multilateral Fund since its inception in 1991. These programmes were supposed to eliminate 66,014 ODP T/year, of which 65,375 (99%) were phased out as of 31 December 2013. This demonstrates UNDP's important role in the success of MLF's assistance towards the elimination of Ozone Depleting Substances.

While assuming that the ODP phased out in a given year would have continued to be consumed on a yearly basis without growth, the total amount of ODP that was cumulatively avoided by UNDP from the inception of the Fund till now would amount to 770,246 ODP tonnes.

At the end of 2013, UNDP was active in 47 countries, of which 23 are low volume consuming (LVCs). The majority of ongoing projects are implemented using the National Implementation modality, providing countries with larger country ownership.

UNDP is the lead agency in 29 countries. In 2014, there are only two remaining HPMPs (Mauritania and South Sudan) which need to be submitted. While actions are being taken to allow submission of these two remaining Stage I HPMPs, it should be noted that the reasons why these HPMPs cannot be submitted lies beyond UNDP's control.

With the short time to implement HPMPs, there is a surge of workload for UNDP to meet the needs of so many A5 countries. This significant workload, which will continue for the next two years, comes at a time that preparation of Stage II HPMPs will need to also be initiated. Several countries are expected to submit their requests for Stage II HPMP preparation in 2014. Despite this challenging situation, UNDP remains fully committed to step up its efforts to meet the increased workload and ensure that countries receive the assistance needed to be in compliance with all requirements of the Montreal Protocol.

## II. PROJECT APPROVALS AND DISBURSEMENTS

### A. Annual Summary Data (See table 1)

Table 1: "Annual Summary" shows the important summary data on the number of project approvals, corresponding budgets, ODP, and disbursement figures. The table highlights that, as of 31 December 2013, UNDP had a total of 2247 approved projects under the Multilateral Fund, of which 95 had been canceled or transferred. Of the 2,152 remaining projects, 2,011, or 93% have been completed. They are set to eliminate 66,014 ODP T/year, of which 65,375 ODP T (99%) have already been eliminated.

As of 31 December 2013, UNDP had received net project approvals of US\$ 657,226,441. (excluding support costs). Of these, UNDP, as of end-2013, had disbursed US\$ 585,690,144 excluding all obligations. This translates to 89% of approved funding. This is higher than last year's disbursement rate of 88%. Furthermore, an additional US\$ 540,405.83 of obligations were

outstanding as of end-December 2013, representing orders placed but final payments not yet made. Out of these projects, 141 projects are currently ongoing corresponding to a budget of US\$ 115,021,059.

**B. Interest and Adjustments**

Preliminary interest income earned on MLF Resources in 2013 is US\$ 805,719. This amount should be considered indicative only as UNDP has not yet issued its final financial statements for 2013. Once the financial statements are issued, these will be submitted to the MLF Treasurer by the agreed deadline of 30 September. The difference, if any, between the provisional and final 2013 interest income can then be offset against UNDP project approvals in 2014.

**C. Summary Data By Type and Chemical [CPG, DEM, INS, INV, PRP, TAS, TRA] (See table 2)**

Table 2: Summary Data by Project Type presents an overview of the approvals by the type of project. It demonstrates that of the total amounts approved, 82.8% of the budgets were dedicated to investment projects, 5.1% to technical assistance projects, 5.5% to institutional strengthening and 3.3% to project preparation activities. The remaining 3.0% was dedicated to country programmes and demonstration/training activities.

**D. Multi-Year-agreements (Table 3).**

This table focuses on the multi-year agreements as a whole, rather than on the individual tranches contained in the large database. The table shows that 110 agreements worth US\$ 317,393,750 were allocated in principle to UNDP in multi-year agreements (without support costs) when all tranches are considered. US\$ 276,503,026 out of this total was already approved in individual tranches as of May 2014. Disbursements related to these programmes as of 31 December 2013 amount to US\$ 214,665,831 (78% of the approved amount). Please refer to table 3 for detailed information on each agreement.

### **III. PROJECT COMPLETIONS SINCE LAST REPORT**

**A. ODP Phased Out from Completed Investment Projects**

A total of 24 investment projects phasing out 802.00 ODP tonnes, comprising 1 in the aerosols sector, 2 in foams, 20 in phaseout plans, and 1 in the fumigation sector were completed between 1 January and 31 December 2013. The corresponding ODP tonnes phased out for these projects are 564.60 tonnes in the aerosols sector (MDIs), 111.80 in foams, 102.60 in phaseout plans, and 23.00 tonnes in fumigation.

**B. Non-Investment Project Completions Since The Last Report**

A total of 17 non-investment projects, comprising 1 destruction activity, 13 institutional strengthening phases, and 3 remaining activities were completed between 1 Jan and 31 Dec 2013.

## IV. GLOBAL AND REGIONAL PROJECT HIGHLIGHTS

A. **Global Projects:** There is one on-going global programmes under implementation by UNDP:

GLO/SEV/71/TAS/322, the Core unit support (2014) programme approved at the 71st meeting of the Executive Committee, that covers the administrative costs of UNDP's Montreal Protocol Unit; and continuation of Core Unit support at a level that allows UNDP to provide the oversight, reporting and assistance needed to sustain the large programme is critical.

B. **Regional Projects:** All UNDP regional projects have been completed.

## V. PERFORMANCE INDICATORS

### A. Results in 2013

Decision 41/93 of the Executive Committee approved the indicators to allow for the evaluation of performance of implementing agencies, with the weightings indicated in the table below. Annex IV of the report of the 66th meeting of the Executive Committee contained the UNDP's 2013 targets. One can see from the table below that UNDP fully met 5 out of 9 of its targets and that its score amounts to 89%.

Category of performance indicator	Item	Weight	UNDP's target for 2013	Result achieved in 2013	Score
1. Approval	Number of annual programmes of multi-year agreements approved versus those planned (new plus tranches of ongoing MYAs)	15	27	21 → 78% (see annex 2, 1)	11.7
2. Approval	Number of individual projects/activities (investment projects, RMPs, halon banks, TAS, institutional strengthening) approved versus those planned	10	12	16 → 100% (see annex 2, 2)	10.0
3. Implementation	Milestone activities completed (e.g. policy measures, regulatory assistance)/ODS levels achieved for approved multi-year annual tranches vs. those planned	20	25	20 → 80% (see annex 2, 3)	16.0
4. Implementation	ODP phased-out for individual projects vs. those planned per progress reports	15	58	47.5 → 82% (see annex 2, 4)	12.3
5. Implementation	Project completion (pursuant to Decision 28/2 for investment projects) and as defined for non-investment projects vs. those planned in progress reports	10	18	18 → 100% (see annex 2, 5)	10.0
6. Implementation	Percentage of policy/regulatory assistance completed vs. that planned	10	1/2	Two (2) so it was exceeded or 100% (see annex 2, 6)	10.0
7. Administrative	Speed of financial completion vs. that required per progress report completion dates	10	233	205 finrevs out of 233 → 88% (see annex 2, 7)	8.8
8. Administrative	Timely submission of project completion reports vs. those agreed	5	10	100% achieved (12 PCRs submitted out of 12 planned -- see annex 2, 8)	5.0
9. Administrative	Timely submission of progress reports and responses unless otherwise agreed	5	On-time	100% achieved (see annex 2, 9)	5.0
<b>TOTAL</b>		<b>100</b>			<b>88.8</b>

### B. Cumulative completed investment projects (Table 4)

*NB: Unlike in the business plan reports, the category "investment projects" does not include the Recovery/Recycling TAS projects, nor MeBr demonstration projects.*

As Table 4: Cumulative completed investment projects shows, a total of 1,079 investment projects have been completed, with a corresponding elimination of 59,718 ODP T. Of the US\$ 444,858,917 in their approved budgets in the sectors of Foam, Refrigeration, Phaseout Plan, Aerosol, Solvents, Fumigants, Halon, Process Agents, and Sterilants, 100% has been disbursed. It took an average of 13 months from approval to first disbursement and 33 months from approval to completion. The overall cost-effectiveness of the projects to the Fund was \$7.45/kg. A breakdown of this group of projects is given by region, sector, implementation modality, etc.

C. **Cumulative completed non-investment projects (Table 5)**

As Table 5 shows, UNDP has completed 469 non-investment projects excluding project preparation assistance. Of the US\$ 71,263,890 in their approved budgets, 99% has been disbursed. It took an average of 13 months from approval to first disbursement and 40 months from approval to completion. A breakdown of this group of projects is given by region, type, sector, implementation modality, etc.

D. **Cumulative ongoing investment projects (Table 6)**

As can be seen in Table 6, UNDP has 78 ongoing investment projects in the sectors of Phaseout Plans, Foam Aerosol, and Fumigants with corresponding budgets of US\$ 93,437,558. Of this amount, 37% has already been disbursed. It takes an average of 13 months from approval to first disbursement and an average of 42 months from approval to the estimated project completion. The overall cost-effectiveness of the projects to the Fund was \$45.89/kg. A breakdown of this group of projects is given by region, sector, implementation modality, etc.

E. **Cumulative ongoing non-investment projects (Table 7)**

Table 7 shows that UNDP has 58 ongoing non-investment projects excluding project preparation assistance. Of the US\$ 21,323,501 in approved budgets, 52% has been disbursed. It takes an average of 16 months from approval to first disbursement and 42 months from approval to the estimated project completion. A breakdown of this group of projects is given by region, type, sector, implementation modality, etc.

## **VI. STATUS OF AGREEMENTS AND PROJECT PREPARATION BY COUNTRY**

A. **Agreements To Be Signed/Executed/Finalized**

Since UNDP has a standard legal agreement in place in each developing country that covers UNDP activities in that country, no additional legal agreement is required. There were no specific issues related to this in 2013.

B. **Project Preparation By Country, Approved Amount And Amount Disbursed (Table 8)**

Table 8: Project Preparation by Country, Approved Amount and Amount Disbursed, indicates active project preparation accounts. Of the ongoing 5 PRP projects listed with US\$ 260,000 in associated approvals, 34% has been disbursed. It should be noted that these accounts have remained open with the agreement of the Secretariat further to ExCom decisions.

## **VII. DESCRIPTION OF KEY ONGOING ACTIVITIES**

This section contains a narrative description of the following key ongoing activities:

- A. Technology demonstration projects
- B. ODS destruction demonstration projects

C. Stage I HPMP Activities  
D. Country Highlights

A. **Technology demonstration projects**

UNDP has been at the forefront of developing and implementing demonstration projects in various regions and sectors to assess relatively new technological developments for which little or no experience or data exists on technical performance and costs since 1996. The major objectives of such types of demonstrations were to find alternative solutions and cost-saving methods to the Multilateral Fund for the Implementation of the Montreal Protocol in order to carry out HCFC-investment activities in the future years, bearing in mind the impact on the climate. The results of the demonstrations of emerging technologies in various industrial processes under local conditions in the following countries are described below:

Brazil and Mexico

Pilot projects for the assessment of alternative technologies in PU Foam Applications were approved in Brazil and Mexico and have the objective to develop, optimize and assess the use of methyl formate and methylal as blowing agents in PU applications. The activities were conducted in Brazil for fourteen applications of PU foams whereas in Mexico only for shoe soles applications. These projects address health, safety, environmental, technical and indicative commercial issues.

The final report on the Methyl Formate (MF) demonstration project was presented to the 62nd meeting of the Executive Committee. As a result of such demonstration projects, methyl formate was selected as an alternative technology for approved MLF projects in 2010 in Egypt, Mexico, Nigeria, Brazil, Jamaica, Trinidad and Tobago, Cameroon, and some other countries.

In addition, the pilot project for the assessment of Methylal (ML) in the PU Foam Sector in Brazil and Mexico, which was approved at the 58th meeting of the ExCom that took place in July 2009, has also been concluded in Dec 2011 and the final detailed report on the results were presented to the 66th meeting of the Executive Committee. The results of the pilot project were presented at an international workshop that was held in Sao Paulo, Brazil, in December 2011 with more than 100 participants from the region. The project has generated interesting results especially in the manufacturing of Integral Skin Foam, and system houses in both Mexico and Brazil have adopted this technology in their HPMPs as a result of the successful pilot project for ML.

China

*Foam Sector*

At its 64<sup>th</sup> meeting, the Executive Committee approved a demonstration project to convert HCFC-22/HCFC-142b technology to CO<sub>2</sub> with methyl formate co-blowing technology in the manufacture of extruded polystyrene foam at Feininger (Nanjing) Energy Saving Technology Co. Ltd. The equipment procurement was undertaken during the year 2012. Installation has been completed in mid-December 2012. Trial production run was conducted in Q3 of 2013 and this continued in Q4-2013. Quality issues faced during trial production were resolved and it was verified by technical experts. Now the enterprise is manufacturing the foam with the new technology. A final report will be submitted to the 73rd ExCom.

*Refrigeration and Air Conditioning*

At its 60<sup>th</sup> meeting, the Executive Committee approved two demonstration projects in China on alternatives to the use of HCFC-22 in the manufacture of commercial air-source chillers/heat pumps and in the manufacture of two-stage refrigeration systems for cold storage and freezing applications:

- Demonstration project for conversion from HCFC-22 technology to HFC-32 technology in the manufacture of commercial air-source chillers/heat pumps at Tsinghua Tong Fang Artificial Environment Co. Ltd.: The project is the first in China to adopt HFC-32 in place of HCFC-22 in the production of small-sized commercial air-source chillers/heat pumps. The project verified the application technology of HFC-32 in small air-conditioning equipment and its results could be extrapolated in the small commercial units sub-sector, and is of prominent value and implications for the realization of the first stage of HCFC phase-out in China's industrial and commercial refrigeration sector. The project has been completed in December 2013. The demonstration project has directly led to the use of HFC-32 as a major alternative to HCFC-22 in the industrial and commercial refrigeration (ICR) sector plan of stage I of the HPMP for China, where currently six conversion activities are under implementation. In addition, one compressor manufacturer is currently being supported to use HFC-32 technology. A second compressor manufacturer and another six equipment manufacturers will convert to HFC-32 technology in the future. HFC-32 has also been identified as an alternative technology in Indonesia, where three refrigeration and five AC equipment manufacturers are currently converting to HFC-32. Further conversion activities to HFC-32 technology have been approved for the HPMP in Algeria and Thailand.
- Demonstration project for conversion from HCFC-22 technology to ammonia/CO<sub>2</sub> technology in the manufacture of two-stage refrigeration systems for cold storage and freezing applications at Yantai Moon Group Co. Ltd.: The project was completed on time with all milestones fully achieved. The capacity of the production line has been converted to use substitute refrigerants and is capable of manufacture the converted products. The project has passed the national acceptance verification. The converted products have been put into use by users in Yantai, Weihai and Dalian. The market has expressed interest. The technology route is innovative, the resulting product has significant advantages in terms of environment friendliness and energy efficiency, and the safety performance is greatly improved. Thus the market prospect and competency of the products are sound. The project has been a good demonstration and promotion of advanced HCFC alternative technologies in the industrial and commercial refrigeration sector. A final report will be submitted to the 73<sup>rd</sup> ExCom. While the number of manufacturers of systems of this size is limited globally, the project allowed the technology of two-stage refrigeration systems with CO<sub>2</sub> in the lower stage to be demonstrated, which can be suitable for a number of other applications, among them smaller-scale storage and freezing systems, and supermarkets. The project demonstrated that this technology can principally be developed under and adapted to Article 5 country conditions.

### *Solvents*

At its 64th meeting, the Executive Committee approved a demonstration project for conversion from HCFC-141b based technology to iso-paraffin and siloxane (KC-6) technology for cleaning in the manufacture of medical devices at Zhejiang Kindly Medical Devices Co. Ltd. The project carried out an assessment of more than 15 solvents widely used in the medical devices sector globally. The challenge of finding a suitable replacement is exacerbated by higher costs of available alternatives, higher flammability and explosion potential. The potential alternatives to HCFC-141b are HFC-4310, HFC-365mfc, KC-3000, HFE-7100, and KC-6. The project tested the use of KC-6 as an alternative to HCFC-141b. With necessary equipment modifications for needle assembly lines and silicification tooling cleaning line KC-3 presents itself as a viable alternative to HCFC-141b for cleaning in the manufacture of medical devices. Since KC-3 has a higher cost than HCFC-141b the enterprises using them should strive to reduce the solvent consumption and control the costs.

### Colombia

At its 60th meeting, the Executive Committee approved the assessment project for supercritical CO<sub>2</sub> technology in the manufacture of sprayed polyurethane rigid foams in Colombia. The project was designed to evaluate in developing countries the performance of super-critical CO<sub>2</sub>, a relatively new technology currently used in Japan for polyurethane (PU) spray rigid foam. The project was implemented jointly by Japan and UNDP from 2011-2013. Results from this project showed that supercritical CO<sub>2</sub> technology is a non-flammable, zero ODP and low GWP technology and it shouldn't create any additional industrial hygiene and safety hazards for the use as a replacement for HCFC-141b technology.

### Egypt

Low cost options for the use of Hydrocarbons (HC) as foaming agents in the manufacture of PU Foam were considered as part of a demonstration project in Egypt. The project was approved at the 58th meeting of the Executive Committee in July 2009. The objective of this project was to develop, optimize, and disseminate low-cost systems for the use of hydrocarbons in the manufacture of PU rigid insulation and integral skin foams. The project has been concluded successfully. The substantive technology report describing the results was issued to the 66th meeting of the Executive Committee, and adopted in April 2012. Both options that are emerging from the project—pre-blended cyclopentane systems and direct HC injection—have been selected for ODS phase-out projects in Brazil and Egypt. The findings of the demonstration project show that further mixing head optimization would be beneficial and might enhance the foam densities and reduce operational costs. This optimization is currently pursued at a system house in Egypt.

### Nigeria

A hydrocarbon production demonstration project is being implemented at Pamaque Ltd as part of the HPMP in Nigeria approved at the 62<sup>nd</sup> meeting of the Executive Committee, which took place in December 2010. This subproject is designed to build a demonstration distillation and bottling unit, to conduct related quality testing and to market the product to a select group of service providers. The programme is linked to other efforts in the servicing sector, for example a training and certification program on good practices in the use of HC refrigerants (R-290, R-600a and R-600). The establishment of pilot facilities to produce hydrocarbon for refrigeration use will be producing from 2014 refrigerant-grade pure hydrocarbons from locally produced liquefied petroleum gas (LPG). Hydrocarbon production has started but sales are still reported to be slow and the training component has only just begun. In addition, we are still waiting for some hydrocarbon monitors that were purchased, to arrive in Nigeria, and to be installed. It is hoped that the project can be completed by the end of 2014.

### Turkey

A pilot project validating the use of HFO-1234ze as Blowing Agent in the Manufacture of Extruded Polystyrene (XPS) Foam Boardstock in Turkey was approved at 60th meeting of the Executive Committee in April 2010. This project is designed to assess the use of HFO-1234ze in a developing country context. HFO-1234ze appears to offer equal climate impact advantages as hydrocarbons without the fire risk and promises improved insulation value compared with other HCFC replacements. A company, B-PLAS, was selected to participate in the project by the Turkish XPS Association. All planned production trials have been completed in 2011 and early 2012 and a final assessment was submitted to the 67th ExCom. The current findings show that there is a need for further trials as this will help obtain better assessment of the feasibility of the technology for developing countries. Unfortunately, funding for these additional activities was not approved so that no final conclusions about the technical feasibility of this technology could be arrived at.

## **B. ODS destruction demonstration projects**

The UNDP Montreal Protocol & Chemicals Unit has been supporting countries to assist them to manage their

stocks of ODS, which cannot be reused in a sound way. The potential for recovery, proper management and final disposal of such unwanted ODS and ODS containing appliances/equipment banked, have been proven as being possible in developed countries if the proper legislation and price incentives, as well as business opportunities, exist. However, the applicability of banks management schemes in developed countries needs to also be demonstrated in Article 5 countries. The Executive Committee has approved preparation activities for Brazil, Colombia, Cuba, Georgia, Ghana and India, to address ODS waste management leading to ODS destruction. Four such projects (Colombia, Cuba, Georgia, and Ghana) have already been submitted and approved by the Executive Committee in prior years. Progress is ongoing in these projects and it is too early to determine conclusive results at this stage. The proposal for Brazil has been submitted for consideration of the 72nd ExCom. In the case of India, finding technically and commercially sustainable operations of ODS destruction was found to be a challenge due to a lack of infrastructure for collection, storage and transportation of ODS and returns from destruction process. Thus, a proposal was not developed and the remaining preparation funds will be returned to the Executive Committee.

### C. Stage I HPMP Activities

This section provides a summary of the activities occurring through the HCFC multi-year performance based agreements by country.

#### Angola

In 2013, a training workshop for enforcement officers was completed. The workshop was held to increase awareness of the Regulatory Framework for HCFCs, involving participants from several regions in Angola. Stakeholders, mainly Customs, are engaged in the implementation of the regulatory and enforcement framework. One technical training workshop on quotas was held in Luanda for customs officers. Importers are encouraged to seek alternatives available to HCFCs, and differentiated tariffs have been set up to create the incentives.

In 2014, an agreement was reached on a work plan for 2014. The Terms of Reference for an international consultant to support enforcement was produced. A mission of UNDP is planned in Q2 of 2014. Tranche 1 report and Tranche 2 request was submitted to the 72nd ExCom for consideration.

#### Armenia

In March 2013, the tender documentation by regional procurement panel (ACP), and Transfair (Germany) for equipment delivery to SAGA was completed. Equipment has arrived and is stored at SAGA awaiting finalization of local works. Delays have been encountered due to the financial situation of SAGA and health issues of its director and the completion of local works has thus been postponed. A new NOU officer was also appointed in the last quarter of 2013.

In 2014, UNDP Armenia is in direct regular consultations with SAGA/NOU to resolve any issues. A mission to discuss progress over SAGA was carried out in January 2014. Both the last tranche of the HPMP Stage I and PRP for Stage II have been prepared for submission to the 72nd ExCom, but withdrawn due to the longer time needed for endorsement. It will be resubmitted for consideration at the 73rd ExCom.

#### Barbados

In 2013, the project document (ProDoc) was drafted and sent to the government for its review and comments. As of March 2014, a Local Project Appraisal was being planned, after which the Project Steering Committee can be formed. Then implementation will be initiated.



### Bangladesh

In the Foam sector, during the year 2013, the enterprise has installed the equipment for using the HC based foam-blowing agent and trial manufacturing has been completed. The final safety audit and verification of the project is expected to be completed by the first half of 2014.

As for the overarching HPMP, the agreement was completed but the signature was delayed due to administrative procedural formalities. The UNDP CO and regional office were closely following up on completing these formalities during various meetings with the Department of Environment. A safety audit consultancy firm has been appointed and will complete the audit activity in April 2014. A Memorandum of Agreement has been signed by the Government in the first half of the year.

### Belize

The procurement process has been carried out and the purchase order was also issued. The team is currently waiting for the supplier to deliver the equipment. This is expected to occur by Q3 of 2014.

### Bhutan

In 2013, the procuring of the equipment for sustainable training and operations of recovery and reclamation equipment was completed and the equipment was delivered. The second tranche funding request for HPMP was submitted and approved at the 70th ExCom. The annual work plan was finalized in consultation with the Government.

### Brazil

5 technical missions were conducted in 2013 and 11 contracts were awarded to System Houses and Integral Skin/Flexible Foam producer companies. In 2014, 11 companies have received HCFC-free samples to initiate trials (Methylal and Methyl Formate samples). One Continuous Panel company (Isoeste) has been fully reconverted and two System Houses had reconverted their blending facilities for ISF/FMF applications.

### Brunei Darussalam

A Letter of Agreement (LOA) between the Brunei Government and UNDP was signed in June 2013 and the first payment under the LOA was completed in August 2013. In 2014, the NOU is preparing the documents for procurement of Recovery and Reclamation equipment. The NOU is in the process of selecting the tenderer of the recovery and mini reclamation unit. There was a delay in this due to the proposed brand of mini-reclamation unit (Van Steenburgh), which has stopped its production. Hence, most of the local tenderers are having difficulty to supply mini-reclamation units until only recently. The NOU is currently contacting Asada, which has been determined as the best alternative, for their mini-reclamation.

### Cambodia

During the year 2013, the equipment for the R&R component was procured and received in Q4-2013. In addition, agreement on modalities for implementation was reached. Additional equipment is expected to be received during the first quarter of 2014. Training on R&R was conducted. Equipment will be distributed in Q1/Q2 - 2014.

### Chile

In 2013, the contracts and long term agreements with main experts (national and international) were signed. The first mission of the international expert for supermarket sector was also carried out and a visit to beneficiary companies and a workshop to present alternatives were made. A memorandum of agreement (MoA) with the Chilean Chamber of Refrigeration regarding certification for refrigeration

technicians was prepared and signed. A train-the-trainers seminar was designed, contents were agreed and prepared. The second tranche was requested and approved at the 71st Meeting.

In 2014, the train-the-trainers course has been carried out and a TOR for local consultants has also been completed. Meetings with supermarkets were organized to discuss alternatives and the project work plan.

#### China (ICR Sector)

During the year 2013, project implementation at beneficiary enterprises belonging to the ICR sector was monitored. The third tranche funding request was submitted for the consideration of the 71st Excom and was approved. The remaining agreements will be signed by Q3 in 2014. A consultation mission to assess the progress of the project will be conducted in April 2014.

#### China (Solvents Sector)

During the year 2013, the project implementation at beneficiary enterprises covered under the solvent sector plan was monitored. The second tranche funding request was submitted for the consideration of the 71st Excom and was approved.

#### Colombia

In 2013, the NOU continued with the training and certification of refrigeration technicians. 165 Nitrogen-based kits were purchased and delivered to users. In addition, 18 collection centers were set up and refrigeration recovery and recycling business models were prepared and discussed among stakeholders. One train-the-trainers workshop was conducted and 13 regional workshops with end-users were carried out to present alternatives to HCFCs. Advances were made in the identification of emissive uses and their available alternatives.

In 2014, activities continue to be implemented under the HPMP in Colombia as planned per the work plan. The third tranche request was prepared and submitted for approval. An international expert was hired for technical assistance on natural refrigerants; a workshop on the subject was organized and conducted during the second half of March 2014.

#### Costa Rica

In 2013, activities in the servicing sector were implemented. Technicians were trained and technical assistance was provided to find alternatives to HCFC 141b for flushing. In 2014, HPMP activities continued to be implemented. An agreement was made with SENAI in Brazil to provide south-south collaboration between training schools.

#### Cuba

In 2013, an agreement was reached on the technical specifications among all companies in the foam sector. In addition, the process was published and equipment suppliers were selected and details of the contracts were being discussed with the two companies. One equipment supplier visited Cuba in December 2013 to finalize technical details for the contract. On the servicing side, the project document (prodoc) was agreed by the relevant Ministries. International training of specialists and engineers from the Technical Advisory Group was conducted. The terms of reference for purchasing equipment required for workshops and to strengthen training facilities was prepared. The national survey on refrigeration equipment was completed. One training workshop for customs officers was carried out to increase awareness of new HCFC control measures.

In 2014, for the foam sector, the contract details are now under discussion between Cuba and suppliers, two meetings were conducted with the international expert to clarify some technician issues to Cuban

authorities. The contract is expected to be signed in late April 2014. On the servicing component, the process for purchasing equipment for workshops and training facilities was launched.

#### Democratic Republic of Congo

In 2013, the National Ozone Unit and UNDP focused on completing the activities of the first tranche, which has been satisfactorily completed, and on planning activities for Tranche 2, which have now started. Delivery of equipment in the region is planned in the coming weeks, to be complemented with the appropriate training.

#### Dominican Republic

In 2013, the memorandum of agreement (MOA) was signed by all beneficiary companies (11). Methyl Formate for trials was procured to make on site tests. Two expert missions were organized in October and November 2013 and MF trials for spray, panels and commercial refrigeration were conducted. An injection machine was purchased and delivered to two major PU users. The TOR was prepared, process conducted and purchase order emitted for an injection machine of major panel producer. The contract with INFOTEP was signed and six workshops for training on good refrigeration practices were conducted. The evaluation of a national R&R network state and functionality was completed. A terms of reference (TOR) was prepared and the process was launched for purchasing equipment to strengthen the national R&R network.

In 2014, follow up to HCFC-free production on commercial refrigeration companies and installation of new equipment is being conducted. Two workshops for training on good refrigeration practices are being conducted.

#### Egypt

Two missions were organized in 2013. Equipment for Reftruck and Al Fateh has arrived and was installed at both companies. These two projects will be closed during the next visit of international expert in Q2 2014. An agreement was reached on the memorandum of agreement (MOA) documentation (sub-contracts) after consultations with all concerned parties, and system houses worked towards providing final lists of customers. A technology support expert for system houses was maintained on a contract and is awaiting the start of works. UNDP has been working in Q1 2014 with participating system houses to finalize their downstream client lists and one mission was organized in March 2014.

#### El Salvador

In 2013, the MOAs for participating enterprises were signed. A terms of reference (TOR) for injection equipment was prepared, and the project was launched and contracted awarded. Trials with HCFC-free polyols were conducted for spray. A local expert was hired for the project and activities are being implemented according to the plan. Workshops on HCFC alternatives were conducted and a quota system is in place and working properly. The 2014 work plan has now also been established. Unimetal's equipment has been delivered and the installation process is underway.

#### Fiji

During the year 2013, the Government has continued to implement a quota system for controlling HCFC consumption in the country and HCFC quotas for the year 2014 have been issued to licensed importers. A procurement plan for R&R equipment has been completed and a Project Management Unit has been set-up under the NOU. In 2014, project activities are progressing satisfactorily. Second tranche preparation including verification is targeted for completion by Q3 of 2014.

### Georgia

In 2013, a solvent demonstration project was completed with 2 new dry-cleaning machines supplied. A mission by an international solvent expert in 2013 was completed. (30) customs officers and five (5) future trainers and twenty (20) technicians and five (5) trainers were prepared. A Code of Practice has been updated. Work continues on establishing an electronic HCFC use system. Two modern-type refrigerant analysers (Pur-chek) were purchased and handed over to the Customs office and recycling centre in Kutaisi. In 2014, a HPMP Stage I Tranche I report was submitted along with a request for Tranche II to the 72nd ExCom.

### Ghana

In 2013, under Tranche 2, technical workshops were visited to check for safety processes and to identify lead workshops for the conversion scheme. The Centre of excellence located at the ATTC institute is now fully equipped with refrigeration servicing and training equipment and tools as well as a computer. Eleven (11) servicing centres have been selected, received training, and started conversion operations in 2013.

In 2014, the training activities of the centre of Excellence will begin starting in the first quarter. Two regional training centers will complement the Centre of excellence in North and Central regions. The eleven (11) servicing centers started operation and converted between October 2013 and February 2014 a total of 397 HCFC-based split air conditioners, converted to R-290 refrigerant, with the phase-out of 953.4 kg of HCFC-22.

### Guyana

In 2013, the bids were received and initial assessment was conducted. Clarifications were requested from the bidders and a Purchase Order is expected to be issued soon in 2014.

### Haiti

The UNDP component has not begun yet.

### Indonesia

In the Refrigeration and AC sector plans, during the year 2013, project activities in beneficiary enterprises (mainly large consuming enterprises) were monitored as planned. Periodic technical consultative meetings with stakeholders were organized and monitoring & verification activities were undertaken. The second tranche was approved at the 71st Excom.

In 2014, in the Refrigeration and AC sector plans, the project activities are continued to be monitored. Technical consultations on availability of key components were held in February 2014. Under the project management and coordination, technical assistance activities are proceeding as planned and it is expected that the Project Management Unit (PMU) staff will be recruited by Q3 of 2014.

### India

In the Foam sector, in 2013, the project implementation milestones were closely monitored. The conversion project progressed satisfactorily (i.e., equipment procurement was underway) in most of the beneficiary enterprises and the second tranche was approved at the 71st Excom. The finalizing of regulations for controlling and monitoring HCFC use was still in process by the PMU and Ozone Cell.

### Iran

In 2013, in the AC sector plan, the first tranche was completed. Under the second tranche, equipment was procured and installed for manufacturing HCFC free ACs at the enterprises. In the Foam sector plan, in the year 2013, consultations were held with systems house. Due to the existing market environment, the

enterprise is facing difficulties in adopting HCFC-141b free technologies for their polyol systems. The safe use of HCs in SMEs was also highlighted as a concern. In 2014, additional consultations will be held on how to move forward with the systems house component. HPMP Stage-I tranche 3 request was also submitted to 71st Excom but deferred to the 73<sup>rd</sup> Excom due to certain technical issues.

#### Jamaica

In 2013, in the foam sector, the retrofitting spray foam dispensers and the conducting of high density materials trials have been completed. In the RAC sector, the pilot "train the trainers" course in Kingston has been completed. Results of the pilot were used to fine tune the "train the trainers" course. Additionally, the Technician Training Plan and Retrofit Plan were updated.

In 2014, in the foam sector, low density samples have been procured and trials shall take place in March 2014. In the RAC sector, the contracts of the International and National expert were extended. The RRR Plan was updated and the Train the Trainers and Technician Training schedules were approved by the Project Steering Committee.

#### Kyrgyzstan

A UNDP supervision mission was fielded in September 2013 and the national expert continued to provide assistance to the NOU on investment projects. No demonstration project on CO<sub>2</sub>/NH<sub>3</sub> double-stage was possible due to the high cost for imported components (compressors). In line with the original plan, sixteen (16) sets of servicing tools/ equipment were purchased and then distributed to technicians/service centers in the country.

In 2014, a work plan for 2014 was formulated and endorsed by the NOU and funds for 2014 were allocated. The request for the second stage of the HPMP Stage I was submitted jointly with UNEP to the 72nd ExCom. The HPMP Stage II PRP request was also submitted to the 72nd ExCom and received a recommendation from the MLF Secretariat for blanket approval.

#### Lebanon

The first tranche was completed in 2013. Enterprise-level phase-out activities are progressing as planned. The second tranche of HPMP was approved in 70th Excom. Under the second tranche, in 2013, the plan for implementation was discussed with the Government and implementation of project activities in beneficiary enterprises progressed in a satisfactory manner. In Q1-2014, the work plan for the HPMP was finalized and project activities are progressing satisfactorily.

#### Malaysia

In the technical assistance service and PU foam sectors, the first tranche was completed in 2013. In the year 2013, service sector activities progressed as planned. R&R activities were under implementation and retrofit demonstration/incentive scheme was initiated. In the PU Foam sector, enterprise level activities were under implementation and in most of the cases, equipment procurement was in progress. Enterprise level conversion projects were satisfactorily monitored. The second tranche of the Stage I HPMP was approved at the 71st Excom.

#### Maldives

Under the first tranche, during the year 2013, a technical assessment of alternatives for retrofit for fisheries was undertaken. The potential beneficiaries were identified and support was provided for adopting HCFC free technologies. Under the second tranche, activities under the HPMP investment component were also implemented on an ongoing basis. The funds under the second tranche will be programmed for identified activities.

### Mali

In 2013, in spite of the continued difficult political situation in the country, implementation continued as planned. The last batch of equipment for this Tranche was received by the country and the distribution of the equipment to beneficiaries has been completed. The report of Tranche 1 was submitted to the 71st ExCom and accepted. In 2014, a mission by international consultant and UNDP are planned once all the equipment is received and the security situation allows for it. This may be used as an opportunity to organize a workshop for awareness and training purposes.

### Mexico

8 international expert missions in 2013 were organized. All national system houses are well advanced with the reconversion process, and pilots have been made with a substantial number of end-users. Equipment has been installed and technical tests will take place in April 2014.

### Moldova

In 2013, the HCFC Phase-out Strategy for 2013-2040 in terms of a Governmental Decree and Ministry of Environment was drafted and presented to the Government for approval. Annual HCFC import quotas, according to the HPMP, were drafted in legislation and will be established every year. Sixty (60) technicians were trained and certified (acc. F-gas EU Regulations No. 842/2006 and No. 303/2008). The training centre "Technofrig" and Public Refrigeration Association were equipped with training equipment and tools and a website for the Refrigeration Association was created. In 2014, work with Customs authorities continued and the Government reviewed and approved the Work plan. The NOU plans to request a baseline revision through established MOP/Ozone Secretariat procedures.

### Nepal

In 2013, the Letter of Agreement (LoA) terms for the HPMP was finalized and prepared for signature, which was completed in January 2014. Implementation is expected to commence by mid-2014.

### Nigeria

In 2013, in the servicing component with the Pamaque pilot plant, the plant has been completed and is ready for operation. A safety audit was conducted by the international consultant in two missions, in April and Oct, and was considered satisfactory. A detailed operational safety manual was developed by a national consultant and reviewed by the International consultant. Equipment was procured for training and a first training session for users was held in November. In the foam sector, the tank was received, the space was made available in the plant and the tank installed. Tests have started and in 2014, a monitoring mission by the international consultant and UNDP is planned for May 2014, on the occasion of the launch of production at the refrigerant and foam factories. This will also support the kick-off of activities under Tranche 3.

### Panama

In 2013, the terms of reference (TOR) was published and the experts were hired. The project has started the implementation of activities. A quota system was in place and was working properly. 1 train-the-trainers workshop was conducted by the international expert. An agreement with INADEH was also signed for training refrigeration technicians. 3 training workshops for refrigeration technicians were held in 3 different cities. A terms of reference (TOR) was prepared, the purchasing process was completed and a contract was awarded for R&R equipment to strengthen the national R&R network. The second tranche request was prepared and approved. In 2014, the 2014 work plan and budget were prepared and approved and the HCFC quotas for 2014 were established. One train-the-trainers workshop has been conducted.

### Paraguay

Changes in government in the end of 2012 and elections in April made it very difficult to implement activities in the beginning of 2013. A new government took charge in August, a reconfiguration of NOU and Ozone focal point was made, a terms of reference (TOR) was prepared and local consultant hired. In 2014, the 2014 work plan and budget were prepared and approved and the HCFC quotas for 2014 were established.

### Peru

In 2013, a HCFCs Licensing and Quota System was in place and the government endorsed the UNDP Project Document (ProDoc) and the terms of reference (TOR) for the Project Coordinator was finalized. In 2014, as planned, the project document (Prodoc) was approved by the Local Projects Appraisal Committee and is to be signed soon. The hiring process for Project Coordinator has also been initiated and International Experts are currently being selected.

### Sri Lanka

During the year 2013, the Government continued to implement a quota system for HCFC consumption. The agreement with Regnis, which uses HCFC-141b preblended polyol for manufacturing foam, for conversion to HC, was signed and its conversion activities were largely completed by December 2013. Discussions were underway with enterprises assembling air-conditioners for conversion to HCFC free technologies. The second tranche was approved at the 70th Excom. A work plan was discussed with the country, whose priority is to implement R&R activities and to promote HCFC free alternatives in the RAC sector. For 2014, under the first tranche, in Q1-2014, payments under the performance based payment mechanism for Regnis were released. Other activities are being monitored. Under the second tranche, in Q1-2014, a work plan has been finalized and the administrative process is under way to commence implementation.

### St. Kitts & Nevis

In 2013, the government endorsed the UNDP project document (ProDoc) and is now waiting for the Representative's signature, which should be obtained by Q2 of 2014. In the meanwhile, a Terms of Reference (TOR) for the International Expert was finalized.

### Swaziland

UNDP activities were completed in 2013.

### Timor Leste

In 2013, the procurement process was being conducted. The NOU had difficulties in receiving the second payment under the Letter of Agreement (LOA) which was sent from UNDP to the NOU's account in Oct 2013. It is because the bank has changed the required information for the account. The information was amended as requested by the bank two times, thus the funds had to be sent from UNDP to the NOU two times. The agreement between the NOU and the supplier for R&R equipment was being reviewed, which will be finalized in 2014. The equipment is expected to be delivered to TL in Q2 of 2014 and the training on the use of equipment is planned at the same time.

### Trinidad & Tobago

In 2013, the Memorandum of Agreements (MoAs) with all foam companies were set up. Samples were sent to Seal Spray Foam and Vetter Boxes, which were received in 2014 and trials will begin shortly. The remaining companies are negotiating with suppliers on their samples. In the RAC sector, a HC sensitization seminar was organized, with 220 people attending. Technicians were trained on Good Practices, with 235 people trained. 16 instructors received the "train the trainers" course. The country

has negotiated with international A/C manufactures and, as result, has procured pilot R-290a based A/C split units. These were delivered to Trinidad & Tobago and are being installed in training centers so they can be used in the RAC trainings, in order to transfer this technology to servicing companies in the country.

#### Uruguay

In 2013, the quota system was in place and working properly. 2 multisession week-long training workshops were conducted by the international expert in August and November. A terms of reference (TOR) was prepared, a process was launched and a contract was awarded for equipment to strength training facilities in LATU. The equipment was delivered and installed in LATU. The third tranche request was prepared and approved. In 2014, the 2014 work plan and budget was prepared and approved. The third tranche funds were included in the budget and HCFC quotas for 2014 were established.

#### **D. Country Highlights (January – December 2013)**

UNDP has been at the forefront of innovative solutions for countries to address their Montreal Protocol compliance obligations. UNDP's work has resulted in market transformation for the introduction of environment-friendly products and corresponding policy and technological advances and has bought to countries access to emerging technologies, reduced energy bills for consumers, fostered innovation, and created a more equitable market for greener products, allowing indigenous manufacturers to maintain competitiveness.

The next section showcases several prominent examples showing the impact of UNDP's support at the country level.

#### Bangladesh

UNDP assisted Bangladesh in eliminating about 200 MT of HCFC-141b (2009 equivalent) used in manufacturing insulation foam for domestic refrigerators in Walton Hitech Industries ("Walton"). This project, which began in 2011, was successfully implemented in a fast-track manner to ensure that the Government was able to comply with 2013 HCFC freeze targets. The enterprise converted their facility in a cost-effective manner through the installation of new equipment and retrofitting existing equipment for using HC as foam-blowing agent. The enterprise also provided several trainings to their plant staff on the safe operations of HC-based equipment. This project has not only paved way for the enterprise to undertake future expansions in foam manufacturing using HCs, but also led the enterprise to work towards considering HFC-free refrigerant in future. Implementation of this project through a Performance Based Payment mechanism ensured smooth project implementation with a proactive role by the Government and industry.

#### Costa Rica

Costa Rica's Stage I HPMP was approved in July 2011. The Government of Costa Rica has in its HPMP prioritized the improvement of the capacity of the National Learning Institute (INA), which is the institution that trains new and upgrades the level of old technicians. UNDP provided south-south collaboration to the NOU of Costa Rica and put them in contact with the SENA institute in Colombia as well as with the SENAI in Brazil. INA is now exchanging experiences with both institutions with the aim to improve the curricula of the education at the institution in order for the newly trained technicians to be better prepared for new refrigerants.

#### Georgia

Georgia's Stage I HPMP was approved in April 2011 and an ODS-Waste Destruction project for the country



was approved in April 2013. In Georgia, UNDP has adopted an integrated approach to the country's sound management of chemicals and waste by combining funding from the MLF for the ODS-Waste project with the GEF for an ongoing POPs pesticides project to achieve economies of scale for the small amount of unusable ODS. UNDP has continued to advise the Government of Georgia on the joint export of ODS waste (up to 2 tons) and POPs waste (250 tons). In 2013, the UNDP-GEF programme on POPs pesticides elimination at the Iagluja hazardous waste landfill in Georgia requested financial proposals for the sound disposal of POPs and ODS waste through high temperature incineration (HTI) in EU. Since the selection of a waste management company (Polyeco from Greece), UNDP and the NOU have been providing technical support and oversight on the waste repackaging and preparation for its export to France and Belgium. Once the export and disposal of both waste streams have been confirmed by Polyeco, appropriate reporting on the achieved results in the joint disposal of ODS waste with POPs will be ensured in line with original project's plans and the Executive Committee's recommendations to demonstrate the feasibility of such synergistic approaches.

### Ghana

Ghana was the first country in the Africa continent to have its HPMP approved in July 2010. Under Ghana's HPMP, a clear choice has been made by the country to focus on the use of Hydrocarbons as a key and primary alternative to HCFCs. This builds upon the decisions made by the country during the CFC phase-out in the domestic refrigeration sector. UNDP has supported the development of an integrated strategy including both ozone-related concerns, climate and energy efficiency, and has helped develop and secure funding from both the MLF and the GEF for related projects to implement this strategy. In addition, particular attention has been given, throughout this reporting period, in developing the appropriate and supportive legislation for the safe phase-out of HCFCs and the selection of hydrocarbon as alternatives. This has included the examination of the best policy and regulatory environment to facilitate, as a pilot, the retrofitting of AC units to hydrocarbon uses (only in authorized and trained workshops). This was also based on international expertise and relevant training, including the chief technicians' trainings in Italy as part of the HPMP's bilateral component (Government of Italy being the cooperating implementing agency).

### Indonesia

Indonesia's HPMP Stage I was approved in July 2011, in which Indonesia has targeted complete phase-out of HCFCs in the Air Conditioning (Mfg) and Refrigeration (Mfg) Sectors by 2018. This has strong linkages with the Indonesia Government's overall approach to adopt energy efficient equipment in Refrigeration and Air-conditioning equipment, which is a part of the Government's climate change strategy. UNDP worked with the Government to develop a Project Identification Form (PIF) for "Promoting Energy Efficiency for Non-HCFC Refrigeration and Air Conditioning (PENHRA)" funded by the GEF. This was developed to build upon the existing program under the HPMP to assist enterprises in industry to adopt energy efficient equipment design and manufacturing while achieving HCFC phase-out, amongst other actions. Being one of the first of its kind, this project adopted an integrated approach which puts together two separate components i.e., Montreal Protocol project activities relating to ODS phase-out and energy efficiency promotion measures in GEF. This PIF was approved in February 2013 and a full project document is under advanced stages of development. This project not only provides an opportunity to show the benefits of integrated approach of maximizing climate benefits while achieving ODS phase-out in the RAC sector, but also serves as an example for adopting similar initiatives in other countries in the region/globally.

### Maldives

The HPMP for Maldives was approved in April 2010 and was one of the first HPMPs approved for the complete phase-out of HCFC consumption in the country in 2020. UNDP provides assistance to Maldives in the implementation of recovery and reclamation program component and retrofit incentive component addressing different end-use applications. Maldives is also committed to achieving carbon-neutrality by the

year 2020 and is undertaking several measures to achieve the target. Implementation of the HPMP forms one of the components of the Government's action plan. Being an island country, almost all energy requirements in Maldives is catered to by oil-based power generation equipment. Energy demand is also significant from Air-Conditioning equipment given the climatic conditions and markets structure in Maldives and most of the equipment currently use either HCFC-22 or high-GWP HFC refrigerant. UNDP worked with Maldives and developed a project for conducting feasibility for adopting not-in-kind technologies (e.g., district cooling) in Male where a significant proportion of population live. This project was approved by the CCAC Secretariat in July 2013. Such an energy-efficient technological solution with a sustainable business model for commercial operations will help the country in reducing energy consumption in Residential and Commercial Air-Conditioning equipment, besides avoiding influx of high-GWP air-conditioning equipment in the country. This not only has a significant impact on ODS emission reduction but also economic gains due to energy efficient operations of such district cooling technologies. The feasibility study is expected to commence by Q2-2014 in Maldives.

#### Moldova

Moldova's Stage I HPMP was approved in April 2011. The NOU in Moldova has reported difficulties in meeting growing HCFC import demand by the HCFC end-users due to a decreased HCFC baseline, mostly attributed to a drop in HCFC imports in 2010 due to a financial crisis in Moldova. UNDP has been requested by the NOU in Moldova to approach the Ozone Secretariat to advise on appropriate procedures to submit and substantiate its request for a HCFC baseline revision. In response, UNDP has initiated information exchange and dialogue with the Secretariat in Nairobi to prepare for the baseline revision for Moldova to allow the country to meet its 10% reduction milestone in 2015. Relevant assistance will be provided by UNDP during an information review at the coming Implementation Committee meetings in 2014.

#### Trinidad and Tobago

Trinidad and Tobago's Stage I HPMP was approved in July 2011. UNDP is supporting Trinidad and Tobago in the reconversion of Polyurethane Foam (PU Foam) producing companies to adopt zero-ODP and low-GWP alternatives through a regional approach - since its market is totally dependent on imported fully formulated systems - that demands close coordination with similar reconversion projects on other countries to make sure the supply chain is properly handled, minimizing the impact to the country. Also, UNDP is supporting the Government of Trinidad and Tobago to phase-out the consumption of HCFCs in the Refrigeration and Air Conditioning sector, which is a high intensity energy demander subsector. In this sense, UNDP has helped Trinidad and Tobago to phase in, safely, very low-GWP hydrocarbons refrigerants through training and capacity building for servicing purposes. A great effort was also put in place to help Trinidad and Tobago to assess state-of-art HC-290a (propane) based split and window types air conditioning units – still not available for large scale export. In the first quarter of 2014, pilot R-290a A/C units were delivered to TT and are being used by local training schools and technicians so the country can phase-in this technology that might soon be available to the rest of the world.

#### South-South Cooperation for promoting low-GWP alternatives in air-conditioning, foam and other sectors

In June 2013, a second Technology conference on “Advancing Ozone and Climate Protection Technologies” was held in Bangkok with a focus on alternatives for air conditioning, foams, and other sectors, and a special focus on standards for climate-friendly alternatives. This conference was organized by UNDP, UNEP, the CCAC, USA, EC, and The Alliance for Responsible Atmospheric Policy. UNDP provided substantive technical inputs on structuring this meeting, agenda and support for participation from enterprises from developing countries, besides support on logistics. Through our support for technical information exchange through south-south cooperation, enterprises manufacturing HCFC free polyol systems from India, HC based air-conditioners from India, and R-32 based commercial air-conditioning equipment from Indonesia participated in the meeting and displayed their products in the

Exhibition, which other A5 countries could adopt in their HCFC phase-out activities. Over 250 participants from both developed and developing countries attended this conference and exhibition.

## VIII. ADMINISTRATIVE ISSUES (OPERATIONAL, POLICY, FINANCIAL, OTHER)

### A. Meetings Attended by UNDP in 2013

From	To	Country	Meeting
29-Jan-13	31-Jan-13	Canada	Inter-agency & coordination meeting
11-Feb-13	16-Feb-13	India	Policy Support and Programme Oversight
18-Feb-13	21-Feb-13	India	Policy Support and Programme Oversight
19-Mar-13	21-Mar-13	Indonesia	Policy Support and Programme Oversight
26-Mar-13	29-Mar-13	Saint Kitts and Nevis	Regional network meeting for English speaking LAC
1-Apr-13	3-Apr-13	Colombia	Policy Support and Programme Oversight
7-Apr-13	12-Apr-13	Egypt	Policy Support and Programme Oversight
7-Apr-13	14-Apr-13	Peru	Policy Support and Programme Oversight
8-Apr-13	10-Apr-13	India	Policy Support and Programme Oversight
14-Apr-13	20-Apr-13	Nigeria	Policy Support and Programme Oversight
15-Apr-13	19-Apr-13	Canada	69th meeting of Executive Committee
4-May-13	10-May-13	Australia	Joint Meeting of the Pacific Island Countries (PIC) and South East Asia (SEAP) Networks of Ozone Officers
5-May-13	11-May-13	Brazil	Policy Support and Programme Oversight
20-May-13	25-May-13	Macedonia	UNEP/CAP Annual Ozone Officer meeting for Europe/CIS region
3-Jun-13	4-Jun-13	Austria	Participation in UNIDO Atmosphere conference
10-Jun-13	13-Jun-13	Brazil	Policy Support and Programme Oversight
11-Jun-13	14-Jun-13	Colombia	Regional network meeting for Spanish speaking LAC
29-Jun-13	5-Jul-13	Thailand	70th meeting of Executive Committee & OEWG
8-Jul-13	12-Jul-13	Haiti	Policy Support and Programme Oversight
22-Jul-13	24-Jul-13	Peru	Policy Support and Programme Oversight
26-Aug-13	30-Aug-13	Indonesia	Policy Support and Programme Oversight
3-Sep-13	6-Sep-13	France	CAP meeting
3-Sep-13	11-Sep-13	China	Joint Meeting of the South East Asia (SEAP) and South Asia Networks of Ozone Officers
17-Sep-13	20-Sep-13	Brazil	Policy Support and Programme Oversight
22-Sep-13	28-Sep-13	Kyrgyzstan	UNEP/CAP Sub-regional meeting for Russian-speaking countries
23-Sep-13	28-Sep-13	Ghana	Policy Support and Programme Oversight
23-Sep-13	24-Sep-13	Canada	Inter-agency & coordination meeting
29-Sep-13	4-Oct-13	Nigeria	Policy Support and Programme Oversight
30-Sep-13	4-Oct-13	Jamaica	Joint network meeting for ozone officers in English and Spanish speaking LAC
30-Sep-13	2-Oct-13	Venezuela	Policy Support and Programme Oversight
4-Oct-13	7-Oct-13	Egypt	Policy Support and Programme Oversight
7-Oct-13	11-Oct-13	Brazil	Policy Support and Programme Oversight
18-Oct-13	26-Oct-13	Thailand	25th MOP
23-Oct-13	25-Oct-13	Dominican Republic	Policy Support and Programme Oversight
11-Nov-13	15-Nov-13	Chile	Policy Support and Programme Oversight

26-Nov-13	28-Nov-13	Mexico	Policy Support and Programme Oversight
1-Dec-13	6-Dec-13	Canada	71st meeting of Executive Committee

B. **Other Issues.**

There were no specific issues in 2013 that need to be addressed.

## ANNEX 1: Tables related to the Performance Indicators

### 1. Performance Indicator 1: MYAs

Approvals for National Plans and HPMPs are listed in the following table.

Country
Barbados
Bhutan
Cambodia
Chile
China
China
Congo Dr
Costa Rica
Dominican Republic
India
Indonesia
Jamaica
Lebanon
Malaysia
Maldives
Mexico
Nigeria
Panama
Sri Lanka
Trinidad & Tobago
Uruguay

### 2. Performance Indicator 2: Individual Projects

The number of individual projects approved in 2013 are listed in the following table (excluding PRP).

MLF Number	Type	Short Title
ARG/SEV/71/INS/172	INS	Ozone unit support
BGD/SEV/71/INS/41	INS	Ozone unit support
CHI/SEV/69/INS/177	INS	Ozone unit support
COL/SEV/70/INS/83	INS	Ozone unit support
COS/SEV/71/INS/49	INS	Ozone unit support
CUB/PHA/71/TAS/51	TAS	Verification report for Stage I HPMP
CUB/SEV/71/INS/52	INS	Ozone unit support

FIJ/PHA/71/TAS/25	TAS	Verification report for Stage I HPMP
GEO/DES/69/DEM/33	DEM	Demonstration project on ODS-Waste
GEO/SEV/69/INS/34	INS	Ozone unit support
GLO/SEV/71/TAS/322	TAS	Agency programme
IDS/SEV/71/INS/201	INS	Ozone unit support
MAL/SEV/70/INS/171	INS	Ozone unit support
PAN/SEV/71/INS/36	INS	Ozone unit support
SRL/PHA/71/TAS/45	TAS	HCFC phase out plan (2nd tranche)
URU/SEV/71/INS/60	INS	Ozone unit support

### 3. **Performance Indicator 3: ODP milestones**

20 milestones pertaining to ODP targets in MYAs were met.

Country	MLF Number	Short Title
Bhutan	BHU/PHA/70/INV/19	HCFC phase out plan (2nd tranche)
Cambodia	KAM/PHA/70/INV/28	HCFC phase out plan (2nd tranche)
Chile	CHI/PHA/71/INV/179	HCFC phase out plan (2nd tranche)
China	CPR/PHA/71/INV/534	HCFC phase out plan (3rd tranche) (ICR)
China	CPR/PHA/71/INV/537	HCFC phase out plan (2nd tranche) (solvents)
Congo Dr	DRC/PHA/70/INV/37	HCFC phase out plan (2nd tranche)
Costa Rica	COS/PHA/70/INV/48	HCFC phase out plan (2nd tranche)
Dominican Republic	DOM/PHA/69/INV/53	HCFC phase out plan (2nd tranche) (foam manuf)
India	IND/PHA/71/INV/451	HCFC phase out plan (2nd tranche)
Indonesia	IDS/PHA/71/INV/198	HCFC phase out plan (2nd tranche)
Jamaica	JAM/PHA/70/INV/32	HCFC phase out plan (2nd tranche)
Lebanon	LEB/PHA/70/INV/78	HCFC phase out plan (2nd tranche)
Malaysia	MAL/PHA/71/INV/172	HCFC phase out plan (2nd tranche)
Maldives	MDV/PHA/69/INV/24	HCFC phase out plan (2nd tranche)
Mexico	MEX/PHA/71/INV/168	HCFC phase out plan (3rd tranche)
Nigeria	NIR/PHA/71/INV/135	HCFC phase out plan (3rd tranche)
Panama	PAN/PHA/70/INV/34	HCFC phase out plan (2nd tranche)
Sri Lanka	SRL/PHA/70/INV/44	HCFC phase out plan (2nd tranche)
Trinidad & Tobago	TRI/PHA/71/TAS/30	HCFC phase out plan (2nd tranche)
Uruguay	URU/PHA/71/INV/59	HCFC phase out plan (3rd tranche)

#### 4. Performance Indicator 4: ODP from individual projects.

The table below shows that UNDP has completed individual projects in 2013 which corresponds to a phaseout of 47.5 ODP tonnes.

	ODP Phased Out
2013 PR:	44,294.3
2012 PR:	44,246.8

**Difference: 47.5**

#### 5. Performance Indicator 5: Projects completed in 2013.

The following 18 projects were completed in 2013:

MLF Number	Short Title
BAR/REF/43/TAS/12	RMP: Monitoring
BGD/ARS/52/INV/26	MDI Investment Program
BRA/SEV/60/INS/294	Institutional Strengthening: Phase 6
CHI/SEV/63/INS/176	Ozone unit support
COL/SEV/64/INS/79	Ozone unit support
CPR/SEV/62/INS/504	Institutional Strengthening: Phase 9
DOM/HAL/51/TAS/39	National halon bank update
GEO/SEV/63/INS/31	Ozone unit support
GLO/SEV/63/TAS/306	Technical assistance/support
GLO/SEV/68/TAS/316	Agency programme
IDS/SEV/65/INS/197	Ozone unit support
IND/SEV/65/INS/439	Ozone unit support
IRA/SEV/61/INS/197	Institutional Strengthening: Phase 8
LEB/SEV/62/INS/73	Institutional Strengthening: Phase 7
NIR/SEV/62/INS/130	Institutional Strengthening: Phase 6
PAK/SEV/62/INS/81	Institutional Strengthening: Phase 6
TRI/SEV/59/INS/24	Institutional Strengthening: Phase 6
VEN/SEV/62/INS/117	Institutional Strengthening: Phase 10

#### 6. Performance Indicator 6

In 2013, UNDP had planned to provide specific policy/regulatory assistance in one out of two countries. However, the text below shows that such assistance was provided in Indonesia and Maldives. Therefore, two instances occurred where policy/regulatory assistance was provided beyond what was expected in the approved programmes. Please see below for more information:

<p><b>Indonesia:</b> Under this performance indicator, UNDP provided special policy assistance beyond the usual project implementation activities</p>	<p>Indonesia's HPMP Stage I has targeted a complete phase-out of HCFCs in the Air Conditioning (Mfg) and Refrigeration (Mfg) Sectors by 2018. This has strong linkages with the overall approach of Indonesia Government to adopt energy efficient equipment in Refrigeration and Air-conditioning equipment, which is a part of the Government's climate change strategy. UNDP worked with the Government to develop a Project Identification Form (PIF) for "Promoting Energy Efficiency for Non-HCFC Refrigeration and Air Conditioning (PENHRA)" funded by GEF. This was developed to build upon the existing program under HPMP to assist enterprises in industry to adopt energy efficient equipment design and manufacturing while achieving HCFC phase-out, amongst other actions. Being one of the first of its kind, this project adopted an integrated approach which put together two separate components i.e., Montreal Protocol project activities relating to ODS phase-out and energy efficiency promotion measures in GEF. This PIF was approved in February 2013 and a full project document is under an advanced stage of development.</p>
<p><b>Maldives:</b> Under this performance indicator, UNDP provided special policy assistance beyond the usual project implementation activities</p>	<p>UNDP provides assistance to Maldives in the implementation of a recovery and reclamation program component and retrofit incentive component addressing different end-use applications. Maldives is also committed to achieving carbon-neutrality by the year 2020 and is undertaking several measures to achieve the target. Implementation of its HPMP forms one of the components of the Government's action plan. Being an island country, almost all energy requirements in Maldives is catered to by oil based power generation equipment. Energy demand is also significant from Air-Conditioning equipment given the climatic conditions and market structure in Maldives and most of these equipment currently use either HCFC-22 or high-GWP HFC refrigerant. UNDP worked with Maldives and developed a project for conducting feasibility for adopting not-in-kind technologies (e.g., district cooling) in Male where a significant proportion of population lives. This project was approved by CCAC Secretariat in July 2013. Such an energy-efficient technological solution with a sustainable business model for commercial operations will help the country in reducing energy consumption in Residential and Commercial Air-Conditioning equipment, besides avoiding influx of high-GWP air-conditioning equipment in the country.</p>

## **7. Performance Indicator 7: Final Revisions**

Last year's database counted 233 projects operationally completed before 1 Jan 2013, which could have been financially completed in 2013. This year's database counts 205 projects for which a final revision was issued in 2013.



**8. Performance Indicator 8: PCRs**

100% achieved (10 PCRs submitted out of 10 PCRs scheduled for submission in 2013).

**9. Performance Indicator 9**

Progress Report produced on 1 May 2014 as required.