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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixty-fifth Meeting
Bali, Indonesia, 13-17 November 2011

PROJECT PROPOSAL: EL SALVADOR

This document consists of the comments and recommendation of the Fund Secretariat on the following project proposal:

Phase-out

- HCFC phase-out management plan (stage I, first tranche)

UNDP/UNEP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

El Salvador

(I) PROJECT TITLE	AGENCY
HCFC phase-out (Stage I)	UNDP (lead), UNEP

(II) LATEST ARTICLE 7 DATA	Year: 2010	11.70 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2010			
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption		
				Manufacturing	Servicing						
HCFC-123											
HCFC-124					0.02				0.02		
HCFC-141b					1.12				1.12		
HCFC-142b					0.01				0.01		
HCFC-22					4.6				4.6		

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline (estimate):	11.70	Starting point for sustained aggregate reductions:	16.62
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	0.0	Remaining:	7.59

(V) BUSINESS PLAN		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	1.6	0.0	0.7	0.0	0.0	0.7	0.0	0.0	0.2	0.0	3.3
	Funding (US \$)	181,306	0	107,231	0	0	107,231	0	0	35,744	0	431,513

(VI) PROJECT DATA		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits (estimate)		n/a	n/a	11.68	11.68	10.51	10.51	10.51	10.51	10.51	7.59	n/a
Maximum allowable consumption (ODP tonnes) (% reduction)		n/a	n/a	11.68	11.68	10.51	10.51	10.51	10.51	10.51	7.59	n/a
Project Costs requested in principle (US\$)	UNDP	Project costs	530,349			58,928	94,000				16,000	699,277
		Support costs	39,776			4,420	7,050				1,200	52,446
	UNEP	Project costs	166,500			18,500	171,000				19,000	375,000
		Support costs	5,850			650	4,680				520	11,700
Total project costs requested in principle (US \$)		696,849				77,428	265,000				35,000	1,074,277
Total support costs requested in principle (US \$)		45,626				5,070	11,730				1,720	64,146
Total funds requested in principle (US \$)		742,475				82,498	276,730				36,720	1,138,423

(VII) Request for funding for the first tranche (2011)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNDP	530,349	39,776
UNEP	166,500	5,850

Funding request:	Approval of funding for the first tranche (2011) as indicated above
Secretariat's recommendation:	Individual consideration

PROJECT DESCRIPTION

1. On behalf of the Government of El Salvador UNDP, as the lead implementing agency had submitted to the 64th Meeting of the Executive Committee, stage I of an HCFC phase-out management plan (HPMP), which was subsequently deferred by UNDP at the meeting upon request by the Government of El Salvador.
2. UNDP, on behalf of the Government, is re-submitting stage I of the HPMP for El Salvador for the consideration of the 65th Meeting at a total cost, as originally submitted, of US \$1,074,277 plus agency support costs of US \$52,446 for UNDP and US \$11,700 for UNEP. The HPMP covers strategies and activities to achieve the 35 per cent reduction in HCFC consumption by 2020, and includes funding for the institutional strengthening project.
3. The first tranche for stage I of the HPMP being requested at this meeting amounts to US \$574,277 plus agency support costs of US \$43,071 for UNDP, and US \$166,500 plus agency support cost of US \$5,850 for UNEP, as originally submitted.

Background

ODS regulations

4. The Ministry of Environment and Natural Resources (MARN) through the Ozone Protection Office, (OPO) is the national body responsible for the implementation of the Montreal Protocol in the country. The OPO is the body coordinating and implementing activities to comply with the Montreal Protocol. The legal framework that supports the implementation of the Montreal Protocol in the country has been included within the national legal instruments for chemical and hazardous substances in the country, and has been implemented complementarily with these and has functioned fairly well until now.
5. The Government has a decree and regulations in place to control the import, export and consumption of ozone-depleting substances (ODS). A licensing system covering HCFCs has been established. The implementation of the ODS Import Quota and Licensing System, is closely coordinated with the General Direction of Customs, within the Ministry of Treasury. In addition, a new draft for replacing Decree N° 38, Regulation on Control of ODS, containing the ODS import quota system, and the Green Seal for CFC-free products, is being revised by the Government, to include full control measures for HCFCs. Additionally, the Government will also endeavour to promote synergies with the national energy policy of the country in implementing activities to phase-out HCFCs.
6. The Government of El Salvador has ratified all the amendments to the Montreal Protocol.

HCFC consumption and sector distribution

7. The two main HCFCs imported into El Salvador are HCFC-22, representing a little over 70 per cent of the total level of HCFCs imported in 2009 (in ODP tonnes), followed by HCFC-141b (some 20 percent) while the rest is distributed to HCFC-142b, HCFC-123, and HCFC-124 contained in refrigerant blends (Table 1).

Table 1: HCFCs imported into El Salvador (2008-2010)*

HCFC	2008		2009		2010	
	mt	ODP tonnes	mt	ODP tonnes	mt	ODP tonnes
HCFC-22	262.15	14.42	134.54	7.40	161.71	8.90
HCFC-142b	1.85	0.12	0.75	0.05	0.18	0.012
HCFC-141b	94.34	10.38	37.51	4.13	23.27	2.56
HCFC-123	8.83	0.18	5.00	0.10	0.30	0.006
HCFC-124	17.62	0.39	8.86	0.19	0.91	0.02
Total	384.69	25.49	186.66	11.86	186.37	11.50

* Based on Article 7 data.

8. There are a total of 6 active HCFC importers in El Salvador, with 4 of them having almost 90 per cent share of the market. Most HCFCs are imported from Mexico and China, with minor imports coming from USA and Panama, which are transshipment points.

9. The majority of the HCFCs imported into El Salvador are used for servicing refrigeration and air-conditioning (RAC) systems. All the air-conditioning (AC) equipment imported into the country runs almost exclusively on HCFC-22. HCFC-141b is also used extensively in cleaning and flushing operations in all industrial sectors. There are 21 importers in the country representing approximately 95 per cent of the imports of AC equipment. Cumulatively over the last three years (2007-2009), approximately 57,600 units of HCFC-based RAC equipment were imported into the country. Overall, the survey showed that 63 per cent of AC equipment imported into the country goes to the commercial sector, 32 per cent to the domestic sector including offices, and only 4 per cent to the industrial sector.

10. The total number of technicians working in the refrigeration and air-conditioning servicing sector is estimated at around 2,000, distributed in approximately 800 to 1,000 workshops of varied degrees of formality. These workshops and technicians are concentrated mainly in the most populated part of the country. In the largest and most formal workshops, only around 66 per cent of the technicians have received some formal training. The table below presents the country's demand for HCFCs in the refrigeration servicing sector:

Table 2: HCFC consumption in the refrigeration servicing sector in 2009

Type	Total units	Total charge (tonnes)		Servicing (tonnes)	
		mt	ODP	mt	ODP
Residential air conditioning	166,823	200.19	11.01	27.55	1.52
Commercial RAC	387,810	1,551.24	85.32	69.81	3.84
Industrial RAC	99,877	799.01	43.95	11.99	0.66
Services air conditioning	280,006	840.02	46.20	25.20	1.39
Total	934,516	3,390.46	186.48	134.54	7.40

11. The country also imports fully formulated polyol systems for foam production, however, the HCFC-141b contained in these polyol systems had not been reported under Article 7 data, and is therefore not counted as consumption. There are three main companies using pre-blended polyols containing HCFC-141b for the manufacture of different products for the construction industry. These companies used an average of 44.87 metric tonnes (mt) or 4.94 ODP tonnes of HCFC-141b contained in pre-blended polyols during the period 2007-2009 as detailed in the table below.

Table 3: Imports HCFC-141b in fully formulated polyol systems (2007-2009)

Year	Polyol in tonnes	HCFC-141b	
		mt	ODP tonnes
2007	150.00	41.90	4.61
2008	185.00	50.40	5.54
2009	161.00	42.30	4.65
Average	165.33	44.87	4.94

12. A summary of HCFC consumption, excluding HCFC-141b in the pre-blended polyols, by sector is shown in Table 4. The 2011-2020 forecast for HCFC consumption based on projection using a formula from estimated linear trends taken from historical HCFC consumption is shown in Table 4.

Table 4: Sectoral HCFC consumption by sector in 2009

Sub-sector	HCFC-22	HCFC-141b	HCFC-142	HCFC-123	HCFC-124	Total (Metric kg)	% share in total HCFC consumption
Commercial RAC	69,805.79	-	-	-	-	69,805.79	37.40
Cleaning (1)	-	37,510	-	-	-	37,510.00	20.10
Domestic AC	27,548.43	-	-	-	-	27,548.43	14.76
Services AC	25,200.58	-	-	-	-	25,200.58	13.50
Industrial RAC	11,985.20	-	-	5,000	-	16,985.20	9.10
Various	-	-	750	-	8,860	9,610	5.15
TOTAL	134,540	37,510	750	5,000	8,860	186,660	100

(1) Cleaning and flushing in all sectors

Table 5: Forecast consumption of HCFCs in servicing sector

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Constrained HCFC consumption	mt	186.66	335.9	425.9	539.9	261.30	261.30	235.17	235.17	235.17	235.17	235.17	169.85
	ODP	11.86	20.3	23.4	29.7	16.07	16.07	12.93	12.93	12.93	12.93	12.93	9.34
Unconstrained HCFC consumption	mt	186.66	335.9	425.9	539.9	684.6	867.9	1100.4	1395.1	1768.8	2242.6	2843.3	3604.9
	ODP	11.86	20.3	23.4	29.7	37.7	47.7	60.5	76.7	97.3	123.3	156.4	198.3

Estimated baseline/starting point for HCFC consumption

13. The Government of El Salvador calculated the estimated baseline for HCFC consumption as 186.52 mt (11.68 ODP tonnes) by using the average of the actual reported 2009 consumption of 186.66 mt (11.86 ODP tonnes) and the actual reported 2010 consumption of 186.37 mt (11.50 ODP tonnes). The Government of El Salvador added the average of HCFC-141b contained in imported pre-blended polyols for 2007-2009 of 44.87 mt (4.94 ODP tonnes) to the estimated baseline of 186.52 mt resulting in a value of 231.39 mt (16.62 ODP tonnes) as the starting point for aggregate reduction in HCFC consumption, as presented in the table below.

Table 6: Calculation of estimated baseline and starting point

Substance	2009 (1) mt	2010 (2) mt	Estimated HCFC baseline mt	Estimated HCFC baseline ODP
HCFC-22	134.54	161.71	148.13	8.15
HCFC-141b	37.51	23.27	30.39	3.34
HCFC-142b	0.75	0.18	0.47	0.03
HCFC-123	5.00	0.30	2.65	0.05
HCFC-124	8.86	0.91	4.89	0.11
TOTAL	186.66	186.37	186.52	11.68
HCFC-141b in polyols (average of 2007-2009 consumption)			44.87	4.94
Starting point			231.39	16.62

(1) Actual figure reported under Article 7

(2) Figure reported under Article 7 pending confirmation of no adjustments.

HCFC phase-out strategy

14. The Government is proposing to follow the Montreal Protocol schedule and adopt a staged approach to achieve the complete phase-out of HCFCs by 2030 with a service tail up to 2040. The current submission only consists of stage I of the HPMP to achieve a 35 per cent reduction by 2020, and focuses on activities for the servicing sector using HCFC-22, as well as the conversion of the three foam enterprises using HCFC-141b in fully formulated polyol systems.

15. In stage I of the HPMP, the country will control the imports of bulk HCFCs by applying a strict licensing and quota system following the reduction schedule in the Montreal Protocol. The country will also reduce the demand for HCFCs for servicing existing equipment through refrigerant recovery and reuse, and the capacity building of technicians in better servicing practices. At the same time, it will also implement the conversion of three foam manufacturing enterprises to non-HCFC alternatives.

Conversion of the foam enterprise

16. Stage I of the HPMP includes a request for the conversion of three foam enterprises in line with decision 61/47. The foam manufacturing enterprises in El Salvador are Unimetal, Profilaxis and Hecasa. Unimetal manufactures polyurethane sandwich panels for the construction and roofing industry, Hecasa manufactures metallic doors with insulating foam filling, and Profilaxis provides thermal insulation solutions to various industries. Based on technical and economic considerations of available non-HCFC technologies, Unimetal aims to replace HCFC-141b used as a blowing agent with pre-blended hydrocarbons (HC). The capital costs requested for Unimetal include transfer of the HC to a safe area (US \$25,000), retrofitting the foam dispensers for HC use (US \$110,000), safety related equipment (US \$151,000) as well as trials, training, testing and a safety audit (US \$51,000) and contingencies (US \$33,700). There were no incremental costs requested. The cost-effectiveness of the project was calculated at US \$5.97/kg.

17. The two other enterprises, Hecasa and Profilaxis will replace the HCFC-141b used as a blowing agent with methyl formate (MF) in pre-blended polyol systems that will be purchased from systems houses in Mexico (the Government of Mexico has submitted stage I of the HPMP to the 64th Meeting (UNEP/OzL.Pro/ExCom/64/39), including a foam project for retrofitting all systems houses to allow the production of methyl formate-based polyols). Capital costs are requested for retrofitting the existing foam dispensers (US \$40,000); trials, testing and training (US \$18,000); technology transfer (US \$25,000) and contingencies (US \$8,300). Incremental operating costs are estimated at US \$14,850. The cost effectiveness is US \$8.34/kg for Hecasa and US \$7.85/kg for Profilaxis.

18. All three enterprises will phase out a total of 75.8 mt (8.31 ODP tonnes) of HCFC-141b in imported pre-blended polyols and will constitute a final phase-out for this application. The summary of activities and proposed implementation period for stage I of the HPMP is shown in Table 7.

Table 7: Specific activities of the HPMP and proposed period of implementation

Description of activities	Implementation schedule
HCFC consumption reduction through good practices	2011 - 2015
HCFC consumption reduction through recovery and recycling	2016 - 2020
Enhanced trade control of ODS and ODS-based equipment	2011 - 2020
Project management and monitoring	2011 - 2020
Conversion of three foam manufacturing enterprises	2011 - 2012
Institutional strengthening	2012 - 2020

Cost of the HPMP

19. The total cost of stage I of the HPMP has been estimated at US \$2,234,850, out of which US \$1,473,000 is calculated by the Government of El Salvador as the real cost for implementing activities to phase out HCFCs in the servicing sector, based on the estimated baseline of 186.52 mt (11.68 ODP tonnes). This will result in a 35 per cent reduction in HCFC consumption by 2020, amounting to 65.28 mt (4.09 ODP tonnes) of HCFCs. Of the funding for the servicing sector, US \$350,000 was being requested from the Multilateral Fund as the eligible funding for the country in line with decision 60/44. The balance of funds will be explored through possible co-financing with the private sector, industry and the Government. The cost of the IS project from 2012 to 2020 amounts to US \$285,000.

20. The cost for the investment component covering the conversion of the three foam enterprises was estimated at US \$476,850 plus support costs in addition to the servicing sector funding. The detailed cost breakdown for stage I activities is listed in Table 8.

Table 8: Total cost stage I of the HPMP

Description of activities	UNDP (US \$)	UNEP (US \$)	Total requested from MLF (US \$)	In-kind contribution from the country/other sources* (US \$)
HCFC Consumption Reduction through good practices	400,000	-	100,000	300,000
HCFC Consumption Reduction through recovery and recycling	400,000		70,000	330,000
Enhanced Trade Control of ODS and ODS-based Equipment		251,000	90,000	161,000
Project management and monitoring	422,000	-	90,000	332,000
Total (US \$)*	1,222,000	251,000	350,000	1,123,000

Description of activities	UNDP (US \$)	UNEP (US \$)	Total requested from MLF (US \$)	In-kind contribution from the country/other sources* (US \$)
Institutional strengthening		285,000	285,000	
Conversion of the three foam enterprises				
Hecasa	29,200			
Profilaxis	76,950			
Unimetal	370,700	476,850	-	439,277
GRAND TOTAL	1,698,850	536,000	1,074,277	1,123,000

*total cost for phase-out in the servicing sector

SECRETARIAT COMMENTS AND RECOMMENDATION

COMMENTS

21. The Secretariat reviewed the HPMP for El Salvador in the context of the guidelines for the preparation of HPMPs (decision 54/39), the criteria for funding HCFC phase-out in the consumption sector agreed at the 60th meeting (decision 60/44), subsequent decisions on HPMPs and the 2011-2014 business plan of the Multilateral Fund.

Issues related to HCFC consumption

22. The Secretariat sought an explanation for the fluctuation of HCFC consumption in the past years (2001-2009), in particular why the figures between 2007 and 2009 are lower by more than fifty percent. In the discussions that followed, UNDP provided satisfactory justification and information that supported the data used in the HPMP. It also explained that the fluctuation in HCFC consumption was most likely the direct consequence of the global recession that started in the USA in late 2008 which affected the economy of El Salvador. Current economic information and data show that this has changed and that there was an increasing trend in imports of HCFC-containing and using refrigeration and air conditioning equipment from 2009 onwards.

23. The Secretariat also noted the HCFC-141b consumption identified for flushing and cleaning operations (30.39 mt) and sought information from UNDP on how the country intends to phase out this use. The Secretariat was informed that phase-out of HCFC-141b used in the servicing sector is already included in the activities identified for the sector where some training on alternatives will be included. UNDP also mentioned that the Government has prioritized consideration of this application in the regulatory review that will be done to strengthen HCFC controls in the country.

Starting point for aggregate reduction in HCFC consumption

24. The Government of El Salvador has established its starting point for sustained aggregate reduction in HCFC consumption as the average of the actual reported consumption in 2009 and 2010, which has been estimated at 186.52 mt (11.68 ODP tonnes), plus 44.87 mt (4.94 ODP tonnes) (average of 2007 to 2009) of HCFC-141b contained in imported pre-blended polyols systems not reported under Article 7 of the Montreal Protocol, resulting in a total consumption of 231.39 mt (16.62 ODP tonnes). The business plan indicated a baseline of 139.9 mt.

Technical and cost-related issues associated with the servicing sector

25. The Secretariat noted that the activities for the servicing sector would focus on training in good practices and recovery and recycling, and therefore sought an explanation from UNDP on how this can be made sustainable as similar activities had already been implemented under the refrigerant management plan (RMP) and terminal phase-out management plan (TPMP). UNDP emphasised that the strategy for the RAC servicing sector emphasised continued collaboration with institutions that have a multiplicative effect such as technical training institutions and refrigeration/trade associations which will ensure the sustainability of the activities.

26. The Secretariat further noted that the funding being identified as required for stage I of this HPMP for the servicing sector comes to a total of US \$1.47 million, but that the country is only requesting US \$350,000 as this is the funding level for which the country is eligible under decision 60/44 based on its estimated baseline. The Secretariat was concerned that activities may not be sustained as a result of this. It also sought a clarification on the basis for adjusting the funding level of the various activities in order to be consistent with the eligibility level under decision 60/44.

27. In response, UNDP indicated that the HPMP was designed by the country to fully reflect what was needed in order for them to phase out HCFCs in accordance with the Montreal Protocol control measures, with the understanding that there was a limit to the funding eligibility for the servicing sector based on the country's HCFC baseline consumption. In order to enable the country to fully implement the activities, co-financing will be sought to complement the funds to be approved by the Executive Committee. UNDP explained that the funds assigned to each activity were adjusted based on a prioritization of the different interventions to highlight those that would be necessary to enable the country to meet the control measures for 2015 and 2020, at a minimum. It also indicated that the country is committed to meeting the control measures of the Montreal Protocol with these funds and will actively seek co-financing to complement the funds from the Multilateral Fund.

Institutional strengthening

28. The Secretariat also noted that the institutional strengthening (IS) project is included within the HPMP. UNDP confirmed that the country wishes to include the IS project in the HPMP in line with decision 62/15 in which the Executive Committee decided "to reiterate that the inclusion of institutional strengthening (IS) funding in an HCFC phase-out management plan (HPMP), in line with decision 59/17, made it subject to the performance-based targets under the multi-year agreement covering the HPMP including all the conditions required for future tranche funding". Both agencies informed the Secretariat that the country understands the implications of this decision. Funding for the IS was calculated at US \$285,000 for 2012 - 2020. Table 9 summarizes the funding for the servicing sector plus the IS project.

Table 9: Proposed activities and adjusted funding

Description of activities	UNDP (US \$)	UNEP (US \$)	TOTAL (US \$)
HCFC consumption reduction through good practices	100,000	-	100,000
HCFC consumption reduction through recovery and recycling	70,000		70,000
Enhanced trade control of ODS and ODS-based Equipment		90,000	90,000

Description of activities	UNDP (US \$)	UNEP (US \$)	TOTAL (US \$)
Project management and monitoring	90,000	-	90,000
Institutional strengthening		285,000	285,000
Total (US \$)*	260,000	375,000	635,000

Technical and cost issues related to the foam conversion projects

29. The Secretariat, in its review of the foam conversion projects drew UNDP's attention to the fact that, as the consumption of these enterprises consists of HCFC-141b in imported pre-blended polyols which do not count as consumption, the phase-out of these polyols at this time would not contribute to the country's compliance with the 2015 and 2020 control measures. It suggested that these projects could be postponed to a future date when systems houses from which the enterprises source their material have been fully converted and there would be more assurance that feasible alternatives would be available. UNDP reiterated that the country wishes to include the phase-out of these three enterprises in line with decision 61/47 and commits to including regulation that will phase-out the imports of pre-blended polyol systems. It also indicated that in the case of one company, the alternative that will be used would be pre-blended HC and delaying the projects for this enterprise and the other two would not be economically feasible for the country.

30. The Secretariat noted that in the case of Unimetal, UNDP had selected the use of pre-blended HC technology for the conversion, and found that the funding proposed is reasonable and cost-effective for a new technology that will be implemented. The Secretariat further noted that for the two other enterprises that were to be converted to MF, the level of funding requested for trials and testing and technology transfer was high given the amount of foam being produced. UNDP agreed to adjust the total cost of the investment project to US \$439,277, resulting in a cost-effectiveness of US \$9.79/kg for the phase-out of 44.87 mt (4.94 ODP tonnes) of HCFC-141 in imported pre-blended polyols. The table below summarises the final cost for the conversion of the foam enterprises in El Salvador.

Table 10: Final costs for the enterprises

Enterprise	Cost US \$
Hecasa	29,200
Profilaxis	71,450
Unimetal	338,627
TOTAL	439,277

31. Based on paragraphs 26-30 above, the total agreed funding for stage I of the HPMP for El Salvador was US \$1,074,277 plus support costs.

Impact on the climate

32. The proposed technical assistance activities in the HPMP, which include the introduction of better servicing practices and enforcement of HCFC import controls, will reduce the amount of HCFC-22 used for refrigeration servicing. Each kilogram (kg) of HCFC-22 not emitted due to better refrigeration practices results in the savings of approximately 1.8 CO₂-equivalent tonnes saved. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by the country, in particular training for technicians on improved service practice, and refrigerant recovery and reuse, indicate that it is likely that the country will achieve the reduction of 13,591 CO₂-equivalent tonnes in emissions to the atmosphere as estimated in the 2011-2014 business plan. However, at this time, the Secretariat is not in a position to quantitatively estimate the impact on the climate. The impact might be established through an assessment of implementation reports by, *inter alia*, comparing the levels of

refrigerants used annually from the commencement of the implementation of the HPMP, the reported amounts of refrigerants being recovered and recycled, the number of technicians trained and the HCFC-22 based equipment being retrofitted.

33. A calculation of the impact on the climate of the HCFC-141b used in imported pre-blended polyols by foam enterprises in El Salvador based only on the GWP values of the blowing agents and their level of consumption before and after conversion is as follows: 75.4 mt of HCFC-141b will be phased out, 13.3 tonnes of MF and 62.1 tonnes of HC will be phased in, and 53,157 tonnes of CO₂ that would have been emitted into the atmosphere will have been avoided (Table 11).

Table 11: Calculation of the impact on the climate

Substance	GWP	Tonnes/year	CO ₂ -eq (tonnes/year)
Before conversion			
Before conversion			
HCFC-141b	725	75.4	54,665
After conversion			
Methyl formate	20	13.3	266
Hydrocarbons	20	62.1	1,242
Net impact			(53,157)

Co-financing

34. In response to decision 54/39(h) on potential financial incentives and opportunities for additional resources to maximize the environmental benefits from HPMPs, the country's efforts towards finding alternative sources for co-financing the HCFC phase-out strategy will concentrate on the GEF funding sources as well as on bilateral assistance programmes. It is foreseen that due to the constrained resources of and competing demands on the MARN, the efforts towards finding alternative sources for co-financing the HCFC phase-out strategy will not have the desired results for stage I of the HPMP. The Secretariat encouraged UNDP to urge the Government of El Salvador to continue exploring such co-financing opportunities for stage II of the HPMP.

2011-2014 business plan of the Multilateral Fund

35. UNDP and UNEP are requesting US \$1,074,277 plus support cost for implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$742,475 including support costs is above that in the business plan for the period. The difference in the figures is due to the difference in the starting point between the business plan and the actual HPMP submitted, the inclusion of imported pre-blended polyols and the inclusion of the IS at the amount of US \$285,000.

Draft Agreement

36. A draft Agreement between the Government and the Executive Committee for HCFCs phase-out is contained in Annex I to the present document.

RECOMMENDATION

37. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for El Salvador for the period 2011 to 2020 to meet the 35 per cent reduction in HCFC consumption, at the amount of US\$ 1,138,423, consisting of US \$699,277 plus agency support costs of US \$52,446 for UNDP, and US \$375,000 plus agency support costs of US \$11,700 for UNEP, on the understanding that:

- (i) US \$350,000 were provided to address HCFC consumption in the refrigeration servicing sector to reach up to and include the 35 per cent reduction in 2020 in line with decision 60/44;
 - (ii) US \$439,277 were provided for the investment component for the phase-out of 4.94 ODP tonnes of HCFC-141b in imported pre-blended polyols used in the foam manufacturing sector; and
 - (iii) US \$285,000 were provided for the institutional strengthening from July 2011 to December 2020.
- (b) Noting that the Government of El Salvador had agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption an estimated baseline of 11.68 ODP tonnes, calculated using actual consumption of 11.86 ODP tonnes and 11.50 ODP tonnes reported for 2009 and 2010, respectively, under Article 7 of the Montreal Protocol, plus 4.94 ODP tonnes of HCFC-141b contained in imported pre-blended polyol systems, resulting in 16.62 ODP tonnes;
- (c) Deducting 9.02 ODP tonnes of HCFCs from the starting point for sustained aggregate reduction in HCFC consumption.
- (d) Approving the draft Agreement between the Government of El Salvador and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document;
- (e) Requesting the Fund Secretariat, once the baseline data were known, to update Appendix 2-A to the Agreement to include the figures for maximum allowable consumption, and to notify the Executive Committee of the resulting change in the levels of maximum allowable consumption and of any potential related impact on the eligible funding level, with any adjustments needed being made when the next tranche was submitted;
- (f) Approving the first tranche of stage I of the HPMP for El Salvador, and the corresponding implementation plan, at the amount of US \$742,475, consisting of US \$530,349 plus agency support costs of US \$39,776 for UNDP, and US \$166,500 plus agency support costs of US \$5,850 for UNEP.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF EL SALVADOR AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS

1. This Agreement represents the understanding of the Government of El Salvador (the “Country”) and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A (“The Substances”) to a sustained level of 7.59 ODP tonnes by 1 January 2020 in compliance with Montreal Protocol schedules, with the understanding that this figure is to be revised one single time, once the baseline consumption for compliance has been established based on Article 7 data, with the funding to be adjusted accordingly, as per decision 60/44.
2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in rows 4.1.3 and 4.2.3 (remaining eligible consumption).
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees, in principle, to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (“Funding Approval Schedule”).
4. The Country agrees to implement this Agreement in accordance with the HCFC phase-out sector plans submitted. In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.
5. The Executive Committee will not provide the Funding in accordance with the Funding Approval Schedule unless the Country satisfies the following conditions at least eight weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:
 - (a) That the Country had met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved. Years for which no obligation for reporting of country programme data exists at the date of the Executive Committee meeting at which the funding request is being presented are exempted;
 - (b) That the meeting of these Targets has been independently verified, unless the Executive Committee decided that such verification would not be required;
 - (c) That the Country had submitted annual implementation reports in the form of Appendix 4-A (“Format of Implementation Reports and Plans”) covering each previous calendar year; that it had achieved a significant level of implementation of activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent;

- (d) That the Country has submitted an annual implementation plan in the form of Appendix 4-A covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen; and
- (e) That, for all submissions from the 68th meeting onwards, confirmation has been received from the Government that an enforceable national system of licensing and quotas for HCFC imports and, where applicable, production and exports is in place and that the system is capable of ensuring the Country's compliance with the Montreal Protocol HCFC phase-out schedule for the duration of this Agreement.

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (“Monitoring Institutions and Roles”) will monitor and report on implementation of the activities in the previous annual implementation plans in accordance with their roles and responsibilities set out in Appendix 5-A. This monitoring will also be subject to independent verification as described in paragraph 4 above.

7. The Executive Committee agrees that the Country may have the flexibility to reallocate the approved funds, or part of the funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:

- (a) Reallocations categorized as major changes must be documented in advance either in an annual implementation plan submitted as foreseen in sub-paragraph 5(d) above, or as a revision to an existing annual implementation plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:
 - (i) Issues potentially concerning the rules and policies of the Multilateral Fund;
 - (ii) Changes which would modify any clause of this Agreement;
 - (iii) Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches; and
 - (iv) Provision of funding for programmes or activities not included in the current endorsed annual implementation plan, or removal of an activity in the annual implementation plan, with a cost greater than 30 per cent of the total cost of the last approved tranche;
- (b) Reallocations not categorized as major changes may be incorporated in the approved annual implementation plan, under implementation at the time, and reported to the Executive Committee in the subsequent annual implementation report;
- (c) Any remaining funds will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sub-sector, in particular:

- (a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and
- (b) The Country and the bilateral and implementing agencies involved will take full account of the requirements of decisions 41/100 and 49/6 during the implementation of the plan.

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNDP has agreed to be the lead implementing agency (the “Lead IA”) and UNEP has agreed to be the cooperating implementing agency (the “Cooperating IA”) under the lead of the Lead IA in respect of the Country’s activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of any of the agencies taking part in this Agreement.

10. The Lead IA will be responsible for ensuring co-ordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per sub-paragraph 5(b). This responsibility includes the necessity to co-ordinate with the Cooperating IA to ensure appropriate timing and sequence of activities in the implementation. The Cooperating IA will support the Lead IA by implementing the activities listed in Appendix 6-B under the overall co-ordination of the Lead IA. The Lead IA and Cooperating IA have reached consensus on the arrangements regarding inter-agency planning, reporting and responsibilities under this Agreement to facilitate a co-ordinated implementation of the Plan, including regular co-ordination meetings. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amount set out in Appendix 7-A (“Reductions in Funding for Failure to Comply”) in respect of each ODP kg of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement, and take related decisions. Once these decisions are taken, this specific case will not be an impediment for future tranches as per paragraph 5 above.

12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decision that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee, the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to the information necessary to verify compliance with this Agreement.

14. The completion of stage I of the HPMP and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should there at that time still be activities that are outstanding, and which were foreseen in the Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per sub-paragraphs 1(a), 1(b), 1(d), and 1(e) of Appendix 4-A will continue until the time of the completion unless otherwise specified by the Executive Committee.

15. All of the conditions set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	8.15
HCFC-141b	C	I	3.34
HCFC-142b	C	I	0.03
HCFC-123	C	I	0.05
HCFC-124	C	I	0.11
Sub-totals			11.68
HCFC-141b * in imported pre blended polyols			4.94
Total HCFCs			16.62

*average of 2007-2009

APPENDIX 2-A: THE TARGETS, AND FUNDING

		2011	2012	2013	2014	2015	2016	2017-2019	2020	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	11.68	11.68	10.51	10.51	10.51	7.59	n/a
1.2	Maximum allowable total consumption of Annex C Group I substances (ODP tonnes)	n/a	n/a	11.68	11.68	10.51	10.51	10.51	7.59	n/a
2.1	Lead IA UNDP agreed funding(US \$)	530,349	0	0	0	58,928	94,000	0	16,000	699,277
2.2	Support costs for Lead IA(US \$)	39,776	0	0	0	4,420	7,050	0	1,200	52,446
2.3	Cooperating IA UNEP agreed funding (US \$)	166,500	0	0	0	18,500	171,000	0	19,000	375,000
2.4	Support costs for Cooperating IA (US \$)	5,850	0	0	0	650	4,680	0	520	11,700
3.1	Total agreed funding (US \$)	696,849	0	0	0	77,428	265,000	0	35,000	1,074,277
3.2	Total support cost	45,626	0	0	0	5,070	11,730	0	1,720	64,146
3.3	Total agreed costs (US \$)	742,475	0	0	0	82,498	276,730	0	36,720	1,138,423
4.1.1	Total phase-out of HCFC-22, HCFC-141b, HCFC-142b, HCFC-123, HCFC 124 agreed to be achieved under this agreement (ODP tonnes)									4.09
4.1.2	Phase-out of HCFCs to be achieved in previously approved projects (ODP tonnes)									n/a
4.1.3	Remaining eligible consumption for HCFCs mentioned in 4.1.1(ODP tonnes)									7.59
4.2.1	Total phase-out of HCFC-141b in imported pre-blended polyols agreed to be achieved under this agreement (ODP tonnes)									4.94
4.2.2	Phase-out of polyols to be achieved in previously approved projects (ODP tonnes)									-
4.2.3	Remaining eligible consumption for polyols (ODP tonnes)									0

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the last meeting of the year specified in Appendix 2-A.

APPENDIX 4-A: FORMAT OF IMPLEMENTATION REPORTS AND PLANS

1. The submission of the Implementation Report and Plan for each tranche request will consist of five parts:

- (a) A narrative report, with data provided by calendar year, regarding the progress since the year prior to the previous report, reflecting the situation of the Country in regard to phase out of the Substances, how the different activities contribute to it, and how they relate to each other. The report should include ODS phase-out as a direct result from the implementation of activities, by substance, and the alternative technology used and the related phase-in of alternatives, to allow the Secretariat to provide to the Executive Committee information about the resulting change in climate relevant emissions. The report should further highlight successes, experiences, and challenges related to the different activities included in the Plan, reflecting any changes in the circumstances in the Country, and providing other relevant information. The report should also include information on and justification for any changes vis-à-vis the previously submitted Annual Implementation Plan(s), such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes. The narrative report will cover all relevant years specified in sub-paragraph 5(a) of the Agreement and can in addition also include information on activities in the current year;
- (b) A verification report of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;
- (c) A written description of the activities to be undertaken until and including the year of the planned submission of the next tranche request, highlighting the interdependence of the activities, and taking into account experiences made and progress achieved in the implementation of earlier tranches; the data in the plan will be provided by calendar year. The description should also include a reference to the overall plan and progress achieved, as well as any possible changes to the overall plan that are foreseen. The description should cover the years specified in sub-paragraph 5(d) of the Agreement. The description should also specify and explain in detail such changes to the overall plan. This description of future activities can be submitted as a part of the same document as the narrative report under sub-paragraph (b) above;
- (d) A set of quantitative information for all annual implementation reports and annual implementation plans, submitted through an online database. This quantitative information, to be submitted by calendar year with each tranche request, will be amending the narratives and description for the report (see sub-paragraph 1(a) above) and the plan (see sub-paragraph 1(c) above), the annual implementation plan and any changes to the overall plan, and will cover the same time periods and activities; and

- (e) An Executive Summary of about five paragraphs, summarizing the information of the above sub-paragraphs 1(a) to 1(d).

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The monitoring activities will be carried out within the HPMP implementation, monitoring and control project, and will include the implementation of all the projects within the HPMP; the regular monitoring of the project implementation and results; the production of periodic reports on project results in order to facilitate corrective actions; the production of timely project progress reports to the Executive Committee, and regular monitoring of market developments and trends at the national and international levels.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities, including at least the following:
 - (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's HPMP;
 - (b) Assisting the Country in preparation of the Implementation Plans and subsequent reports as per Appendix 4-A;
 - (c) Providing independent verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the Implementation Plan consistent with Appendix 4-A;
 - (d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future annual implementation plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
 - (e) Fulfilling the reporting requirements for the annual implementation reports, annual implementation plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee. The reporting requirements include the reporting about activities undertaken by the Cooperating IA;
 - (f) Ensuring that appropriate independent technical experts carry out the technical reviews;
 - (g) Carrying out required supervision missions;
 - (h) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Implementation Plan and accurate data reporting;
 - (i) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
 - (j) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country and the Cooperating IA, the allocation of the reductions to the different budget items and to the funding of each implementing or bilateral agency involved;
 - (k) Ensuring that disbursements made to the Country are based on the use of the indicators; and

- (l) Providing assistance with policy, management and technical support when required.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent entity to carry out the verification of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 1(b) of Appendix 4-A.

APPENDIX 6-B: ROLE OF THE COOPERATING IMPLEMENTING AGENCY

1. The Cooperating IA will be responsible for a range of activities. These activities are specified in the overall plan, including at least the following:

- (a) Providing assistance for policy development when required;
- (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA to ensure a co-ordinated sequence in the activities; and
- (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A.

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$180 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met.
