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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: PANAMA

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

Panama

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

(II) LATEST ARTICLE 7 DATA	Year: 2010	24.6 (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				
HCFC123					0.1				0.1
HCFC124					0.0				0.0
HCFC141b					3.3				3.3
HCFC141b in Imported Preblended Polyol		2.4							2.4
HCFC142b					0.3				0.3
HCFC22					20.9				20.9

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline (estimate):	24.8	Starting point for sustained aggregate reductions:	27.3
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	0.0	Remaining:	22.5

(V) BUSINESS PLAN		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	0.8	0.8	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	2.9
	Funding (US \$)	69,292	69,292	69,292	37,787	9,793	0	0	0	0	0	255,454
UNEP	ODS phase-out (ODP tonnes)	0.2		0.2								0.4
	Funding (US \$)	27,135	0	27,136	0	0	0	0	0	0	0	54,271

(VI) PROJECT DATA			2011	2012	2013	2014	2015	Total
Montreal Protocol consumption limits			n/a	n/a	24.8	24.8	22.3	
Maximum allowable consumption (ODP tonnes)			n/a	n/a	24.8	24.8	22.3	
Project Costs requested in principle(US\$)	UNDP	Project costs	132,773		100,907		31,865	265,545
		Support costs	9,958		7,568		2,390	19,916
	UNEP	Project costs	35,000		26,600		8,400	70,000
		Support costs	4,550		3,458		1,092	9,100
Total project costs requested in principle (US \$)			167,773	0	127,507	0	40,265	335,545
Total support costs requested in principle (US \$)			14,508	0	11,026	0	3,482	29,016
Total funds requested in principle (US \$)			182,281	0	138,533	0	43,747	364,561

(VII) Request for funding for the first tranche (2011)			
Agency	Funds requested (US \$)		Support costs (US \$)
UNDP	132,773		9,958
UNEP	35,000		4,550

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

PROJECT DESCRIPTION

1. On behalf of the Government of Panama UNDP, as the lead implementing agency, has submitted to the 65th meeting of the Executive Committee stage I and stage II of the HCFC phase-out management plan (HPMP) at a total cost of US \$1,361,269, plus agency support costs of US \$86,680 for UNDP and US \$26,721 for UNEP, as originally submitted, to implement activities that will enable the country to comply with the Montreal Protocol control targets up to the 35 per cent reduction in HCFC consumption by 2020.
2. The first tranche for stage I being requested at this meeting amounts to US \$474,617 plus agency support costs of US \$35,597 for UNDP, and US \$72,714 plus agency support costs of US \$9,453 for UNEP, as originally submitted.

Background

3. The Government of Panama has ratified all the amendments to the Montreal Protocol. Panama's well-developed services sector, which includes the operation of the Panama Canal, banking, the Colon Duty Free Zone (ZLC), insurance, container ports, flagship registry, and tourism, accounts for more than three-quarters of its gross-domestic product (GDP).

ODS regulations

4. The National Ozone Unit (NOU) is responsible for implementing ODS phase-out activities in Panama. The NOU is located within the Ministry of Health, which coordinates the implementation of international agreements related to chemical substances. The Government of Panama introduced ozone depleting substances (ODS) regulations in 1998. The current ODS import licensing system, which includes HCFCs, has been operating since 2006, and import data from the licensing system are consistent with those from customs records. Panama plans to introduce import quotas for HCFCs and controls on HCFC-based equipment during stage I of the HPMP.

HCFC consumption and sector distribution

5. All HCFCs used in Panama are imported by 19 companies, six of which share 80 per cent of the market. The survey done during the HPMP preparation showed that imports are mainly HCFC-22 and HCFC-141b. Small amounts of HCFC-123, HCFC-124 and HCFC-142b represent only one per cent of the consumption. HCFC consumption in Panama is shown in Table 1.

Table 1. 2007-2010 HCFC consumption in Panama reported under Article 7

HCFC	2007	2008	2009	2010	Baseline
Metric tonnes (mt)					
HCFC-22	232.01	472.51	428.28	380.36	404.32
HCFC-123	2.49	0.14	0.68	4.06	2.37
HCFC-124	0.00	1.42	0.32	0.45	0.39
HCFC-141b	21.05	22.59	11.72	30.01	20.87
HCFC-142b	0.00	3.63	1.31	4.12	2.72
Total (mt)	255.55	500.29	442.31	419.00	430.66
HCFC-141b in imported pre-blended polyols (*)	20.51	25.12	22.65	20.40	22.76
ODP tonnes					
HCFC-22	12.76	25.99	23.56	20.92	22.24
HCFC-123	0.05	0.00	0.01	0.08	0.05
HCFC-124	0.00	0.03	0.01	0.01	0.01
HCFC-141b	2.32	2.48	1.29	3.30	2.30
HCFC-142b	0.00	0.24	0.09	0.27	0.18
Total (ODP tonnes)	15.13	28.74	24.96	24.58	24.77
HCFC-141b in imported pre-blended polyols (*)	2.26	2.76	2.49	2.24	2.50

(*) Source: HPMP. Baseline for HCFC-141b in imported pre-blended polyols is the average consumption between 2007 and 2009.

6. HCFC-22 imports decreased in 2007 due to temporary stockpiling by one importer and a shortage from another caused by raw materials problems, while the increase in 2008 was the result of economic recovery and reaction to the HCFC-production closure announcement by Arkema. HCFC-141b imports also suffered a temporary decrease in 2009 but recovered in 2010. HCFC consumption is expected to increase in 2011 and 2012 due to the strong economic growth being experienced by the country. The forecast of HCFC consumption for 2011 and 2012 as calculated by UNDP is shown in Table 2.

Table 2. 2011 – 2012 forecast of HCFC consumption

Substance	2011		2012	
	MT	ODP tonnes	MT	ODP tonnes
HCFC-22	411.75	22.65	445.72	24.51
HCFC-123	11.79	0.24	34.23	0.68
HCFC-124	0.37	0.01	0.30	0.01
HCFC-141b	36.04	3.96	43.27	4.76
HCFC-142b	7.22	0.47	12.66	0.82
Total	467.16	27.32	536.18	30.79

7. HCFC consumption distributed by sector is presented in Table 3.

Table 3. Sector distribution of HCFC consumption in Panama (average 2009 - 2010)

Sector	HCFC-22	HCFC-141b	Total others	Total	Percentage of total
Metric tonnes (mt)					
Domestic AC	23.67			23.67	5.5%
Commercial RAC ⁽¹⁾	272.10		1.61	273.71	63.6%
Industrial RAC	41.54			41.54	9.6%
Others ⁽²⁾ (including flushing)	59.45	20.87	3.86	84.18	19.5%
Foams (XPS)	7.55			7.55	1.8%
Total (mt)	404.32	20.87	5.47	430.66	100.0%
Foams (PU) (avg 2007-2009)		22.76		22.76	
ODP Tonnes					
Domestic AC	1.30			1.30	5.3%
Commercial RAC ⁽¹⁾	14.97		0.03	15.00	60.5%
Industrial RAC	2.28			2.28	9.2%
Others ⁽²⁾ (including flushing)	3.27	2.30	0.20	5.77	23.3%
Foams (XPS)	0.42			0.42	1.7%
Total (ODP tonnes)	22.24	2.30	0.23	24.77	100%
Foams (PU) (avg 2007-2009)		2.50		2.50	

(1) Includes the "services air-conditioning subsector" composed of government and private offices, and the Colon Duty Free Zone

(2) "Others" group companies with very small HCFC consumption from all sectors (including fisheries, meat processing and others)

Refrigeration and air-conditioning servicing sector

8. HCFC-22 is mainly used by an estimated 2,500 technicians for servicing refrigeration and air-conditioning (RAC) equipment, mostly medium-sized air-conditioning split units. The commercial RAC sector is the largest consumer of HCFC-22 (67.3 per cent measured in mt). It consists of food conservation and distribution businesses (supermarkets, retail businesses, hotels, restaurants) as well as the "services air-conditioning subsector" (16 per cent), covering government and private offices, and the ZLC. The Panama Canal Zone eliminated the use of HCFCs in 2008. The domestic air-conditioning and the industrial RAC sectors together only consume 16 per cent of the HCFC-22 due to a relatively low number of domestic AC units and to the use of ammonia and HFC-134a in most of the industrial

refrigeration installed capacity. However, it is reported in the HPMP that the consumption of HCFC-22 in these two sectors is rapidly growing.

9. HCFC-141b is imported in bulk for cleaning purposes in the RAC servicing sector (20.87 mt). Small quantities of HCFC-123 are also used in the servicing of cold rooms, and HCFC-124 and HCFC-142b are included in blends used in the RAC servicing sector.

Foam manufacturing sector

10. In addition to the HCFC consumption reported under Article 7, Panama imports polyols containing HCFC-141b for the production of polyurethane (PU) rigid foam in the refrigeration and construction sectors (blocks, discontinuous panels and spray). There are no systems houses in the country and the average imports between 2007 and 2009 were calculated at 22.76 mt (2.50 ODP tonnes) of HCFC-141b. The five biggest manufacturers of PU rigid foam consumed 87 per cent of these imports. Table 4 presents the consumption per company of HCFC-141b in imported pre-blended polyols.

Table 4 Foam manufacturing companies consuming HCFC-141b in imported pre-blended polyols

Enterprise	HCFC-141b in imported pre-blended polyols			Average
	2007 (mt)	2008 (mt)	2009 (mt)	2007-2009 (mt)
Plastifom	11.30	13.80	12.40	12.50
Cangas Trucks	4.00	4.90	4.40	4.43
Fibropinturas	0.40	0.50	0.40	0.43
Equipment Container Solutions	1.20	1.50	1.30	1.33
Auto Servicio VIT	0.40	0.50	0.40	0.43
Carrocerías ACT, Salazar,	0.80	1.00	0.90	0.90
Others	2.41	3.00	2.76	2.72
TOTAL	20.51	25.20	22.56	22.76
Average 2007 – 2009	22.76 mt (2.50 ODP tonnes)			

11. Currently there are no technical options with low global warming potential (GWP) that are suitable for the replacement of HCFC-141b in these small companies. It is expected that by mid-2012 emerging options will be validated and new alternatives will be available.

12. The HPMP indicates that a non-Article 5 owned company is planning to install a systems house inside the ZLC in the near future. All HCFCs introduced into the country from the ZLC are controlled through the import/export licensing system, and the Government of Panama is proposing to extend the import controls also to pre-blended polyols containing HCFC-141b.

13. A small amount of HCFC-22 (7.55 mt) is used as a blowing agent by one company (Plamosa) in the manufacturing of extruded polystyrene (XPS) foam for food packaging.

Estimated baseline for HCFC consumption

14. The HCFC baseline for compliance has been estimated as 24.77 ODP tonnes, based on the consumption of 24.96 ODP tonnes in 2009 and 24.58 ODP tonnes in 2010 reported under Article 7 of the Montreal Protocol.

HCFC phase-out strategy

15. The Government of Panama is proposing a staged approach to achieve the complete phase-out of HCFCs according to the Montreal Protocol schedule. As originally submitted, stage I and stage II are

aimed at reducing HCFC consumption by 14.69 ODP tonnes (or 60 per cent of the established baseline) as follows:

- (a) Reduction of 6.02 ODP tonnes (from an estimated consumption level of 30.79 ODP tonnes in 2012) to meet the freeze in HCFC consumption in 2013;
- (b) Reduction of 2.48 ODP tonnes to meet the 10 per cent target in 2015; and
- (c) Reduction of 6.19 ODP tonnes to meet the 35 per cent target in 2020.

16. The HPMP strategy is made up of four main components:

- (a) Integrated approach to HCFC reduction: aims to reduce inefficient use of HCFCs during servicing, promote the adoption of drop-in natural and low-GWP alternatives, promote cost-effective decisions on maintaining or converting HCFC-based equipment to avoid early conversion or replacement with non-desirable alternatives;
- (b) Safe disposal of used HCFCs: provision of centralized refrigerant storing infrastructure for later HCFC destruction;
- (c) Comprehensive support for HCFC compliance: includes the adaptation of the legal framework related to HCFCs and HCFC-based equipment, the establishment of import quotas, customs training to implement the HCFC import/export control, and awareness-raising activities; and
- (d) HPMP implementation monitoring and control programme.

17. The HPMP will also address the foams manufacturing sector through the following activities:

- (a) Phase-out of HCFC-141b contained in imported pre-blended polyols in the manufacturing of polyurethane foams: In line with decision 63/15, the project will be submitted as part of stage I when proven cost-effective and commercially available low GWP technologies make it possible to replace the HCFC-141b used by small enterprises. The project will phase out an estimated amount of 24.8 mt (2.73 ODP tonnes) of HCFC-141b, which represents the forecasted consumption for 2012; and
- (b) Regulations to support the phase-out of HCFCs: The licensing and quota system will be extended to pre-blended polyols containing HCFC-141b to control and eventually ban imports once the subsector is converted. In addition, through the control on HCFC-22 imports, the Government of Panama expects to encourage the company Plamosa (not eligible for funding) to convert its production of XPS foam to HCFC alternatives at its own cost.

Cost of the HPMP

18. The total cost of stage I and stage II of the HPMP for Panama has been estimated at US \$2,180,000 to achieve a 35 per cent reduction in HCFC consumption by 2020. Of this amount the Government of Panama is requesting US \$1,361,269, which includes US \$1,162,769 for the RAC servicing sector submitted to this meeting, and an indicative value of US \$198,500 estimated for the foams component, to be submitted at a future meeting. The detailed cost breakdown is listed in Table 5.

Table 5: Total cost of stage I and stage II of the HPMP for Panama, as submitted

Component	Activity	Agency	HPMP Cost		Funds Requested	
			Stage I	Stage II	Stage I	Stage II
Integrated approach to HCFC reduction	Refrigeration training (Good Practices, R&R and conversion)	UNDP	340,000	410,000	222,727	186,955
	Refrigerant recovery and recycling programme	UNDP	100,000	100,000	65,508	45,599
	Programme for end-user conservation and conversion plans	UNDP	60,000	100,000	39,305	45,599
	Technical assistance for conversion in key sectors	UNDP	0	200,000	0	91,198
Safe disposal of HCFC	Programme for storage of unwanted ODS	UNDP	25,000	25,000	16,377	11,400
Comprehensive support for HCFC compliance	Revision of legal framework	UNEP	25,000	25,000	16,377	11,400
	Control of HCFC-based Refrigerants and Equipment	UNEP	160,000	160,000	104,813	72,958
	Awareness raising	UNEP	0	0	0	0
HCFC implementation, monitoring and control programme		UNDP	200,000	250,000	116,277	116,277
Totals per stage			910,000	1,270,000	581,384	581,386
Total cost and total requested			2,180,000		1,162,769	
Foams	Phase-out of HCFC-141 contained in imported pre-blended polyols	UNDP	198,500 (*)		198,500 (*)	
Grand total (total cost and cost requested)			2,378,500		1,361,269	

(*) Indicative value, actual funding to be determined at the time of project submission based on the eligibility of the enterprises and the alternative technology selected.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

19. The Secretariat reviewed the HPMP for Panama 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. The Secretariat discussed technical and cost-related issues with UNDP, which were satisfactorily addressed as summarized below.

HPMP targets

20. Noting that the Government of Panama had submitted stage I and stage II of the HPMP, the Secretariat drew UNDP's attention to the fact that the current estimated baseline of 430.6 mt, i.e. greater than 360.00 mt, means that Panama is classified as a non-low-volume-consuming (non-LVC) country for which eligible funding under decision 60/44 is available only to meet reduction targets up to 2015. It was thus agreed to retain only stage I of the HPMP in the submission to address the 10 per cent reduction by 2015.

Starting point for sustained aggregate reduction in HCFC consumption

21. The Government of Panama agreed to establish its starting point for sustained aggregate reduction in HCFC consumption at 27.27 ODP tonnes, composed by the estimated baseline of 24.77 ODP tonnes, calculated using actual consumption of 24.96 ODP tonnes and 24.58 ODP tonnes reported for

2009 and 2010, respectively, under Article 7 of the Montreal Protocol, plus the average of HCFC-141b contained in imported pre-blended polyols for 2007-2009 (2.50 ODP tonnes).

Issues related to the refrigeration servicing sector

22. The Secretariat noted the comprehensive set of activities proposed in the HPMP for the servicing sector, and discussed with UNDP which of those activities should receive priority in view of the need to remove stage II from the submission. In discussing the priorities for stage I, UNDP explained that immediate assistance in legislation is required to ensure the establishment of the HCFC import quotas and to start controlling HCFC-based equipment imports. UNDP also indicated that the training programme will complement the certification programme started under the CFC national phase-out plan (out of the 2,500 technicians in the country 833 technicians are already certified) and the recovery and recycling project will focus on maintaining the use of the existing infrastructure (59 out of the 70 units distributed in previous projects have been located, 43 are operating and 16 need repairs). The component related to ODS disposal was removed and only activities related to maintaining the storage infrastructure were kept as part of the recovery and recycling project.

23. Also, noting that several of the activities included conversions of RAC equipment to alternative refrigerants that have not been determined or are not currently available in the market, it was agreed to minimize conversions and retrofits during stage I and instead give priority to extending the useful lifetime of existing equipment, and to reducing the amounts of HCFC-22 used in servicing, leakage control and better servicing practices through training and recovery and recycling. This would give time to gain a better understanding of emerging alternatives and for the commercial development enabling them to apply to future stages of HCFC conversions and retrofits.

24. It was also agreed that the phase-out of the use of HCFC-141b imported in bulk for flushing systems during servicing (2.30 ODP tonnes) was a cost-effective way to ensure rapid HCFC reductions in the first years of the HPMP implementation, and should receive priority as it is an emissive use. The Government of Panama is committed to banning the import of HCFC-141b in bulk after the introduction of alternatives for flushing in stage I. Table 6 presents the activities agreed for stage I of the HPMP in the RAC servicing sector.

Table 6. Activities agreed in the RAC servicing sector for stage I of the HPMP

Activities	Impact
Refrigeration training (good practices, R&R and conversion)	2.48
Refrigerant recovery and recycling programme	
Programme for end-user conservation and conversion plans	
Revision of legal framework including control of HCFC-based refrigerants and equipment	
Phase-out of HCFC-141b in flushing and cleaning of circuits during servicing	2.30
Total	4.78

Issues related to the foam sector

25. In explaining the need to convert the foam enterprises to an alternative technology during stage I, UNDP indicated that one of the principles of the HPMP for this stage was to provide policy, technical and financial assistance for the conversion of this sector, which will be complemented by an extension of the ban on HCFC-141b imports to also cover HCFC-141b contained in imported pre-blended polyols. The Secretariat indicated that the reference consumption for this project should be the average consumption between 2007 and 2009 of 2.50 ODP tonnes and not the estimated consumption in 2012 of 2.73 ODP tonnes. It was also clarified that the level of funds allocated for this project in the HPMP submission (US \$198,500) was indicative, as actual funding would be determined at the time of project submission based on the eligibility of the enterprises and the alternative technology selected.

26. In regard to the company consuming HCFC-22 in the XPS foam sector, UNDP explained that it was not possible for the Government of Panama to force the conversion of the company during stage I as it is not a direct importer of HCFC-22 and is not eligible for funding. However, it is expected that the control on HCFC-22 imports established through the HPMP will make it necessary for the company to convert eventually.

Revised overall cost of the HPMP stage I

27. The agreed overall cost of the stage I of the HPMP is presented in Table 7.

Table 7. Revised overall cost of the stage I of the HPMP of Panama

Proposed Activities	Impact	US\$
Refrigeration training (Good Practices, R&R and conversion)	2.48	87,645
Refrigerant recovery and recycling programme		35,000
Programme for end-user conservation and conversion plans		10,000
Revision of legal framework including control of HCFC-based Refrigerants and Equipment		70,000
Phase-out of HCFC-141b in flushing and cleaning of circuits during servicing	2.30	93,900
HCFC implementation, monitoring and control programme		39,000
Total	4.78	335,545
Phase-out of HCFC-141 contained in imported pre-blended polyols	2.50	TBD (*)

(*) Actual funding to be determined at the time of project submission based on the eligibility of the enterprises and the alternative technology selected.

28. As the revised set of activities proposed by UNDP to be included in the stage I of the HPMP account for 19 per cent of the estimated baseline, the Secretariat drew UNDP's attention to discussions and decisions on this issue at the 63rd and 64th meetings where the Executive Committee had noted that in such cases where the HPMP proposed to address more than 10 per cent of the baseline by 2015, an extended commitment beyond 2015 should be solicited from the government concerned. This commitment was noted in the respective decisions approving such HPMPs. In explaining the reasons to propose activities to reduce HCFC consumption beyond 10 per cent of the baseline, UNDP indicated that imports of HCFC-based equipment in the RAC sector are growing at an annual rate between 12 and 15 per cent due to the strong economic growth experienced by the country in the last four years, which triggered expansion of the infrastructure (including the construction of the metro) and an increase in the number of households with air-conditioning equipment. The increased demand for HCFC-22 could be partially reduced through policy measures and technical assistance proposed in the HPMP, but additional actions would need to be implemented to ensure compliance with the freeze and the 10 per cent reduction in the short term. The technical assistance proposed to phase out the use of HCFC-141b imported in bulk for flushing systems during servicing (2.30 ODP tonnes) was also a cost-effective way to ensure rapid HCFC reductions in the first years of the HPMP implementation. Thus, the proposal including activities to reduce HCFCs beyond 10 per cent is intended to assist Panama to achieve the 2013 and 2015 targets, and ensure that the compliance achieved can be sustained.

29. UNDP also advised that the Government of Panama indicated that Panama has always been in compliance with its obligations to the Montreal, and it will continue to do so. The Government also indicated that as in the past, the Government and stakeholders will cover the additional cost that is needed for complying with the Montreal Protocol obligations.

Impact on the climate

30. 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. A preliminary estimation of the impact on the climate as calculated by Panama in its HPMP indicates that the phase-out of the 20.87 mt of HCFC-141b used for servicing refrigeration systems would avoid the annual emission of 15,131 CO₂-equivalent tonnes. This figure is higher than the potential climate impact of the HPMP indicated in the 2011-2014 business plan of 7,102 CO₂-equivalent tonnes, because the business plan did not include in the period 2011-2014 phase-out of HCFC-141b in servicing.

31. A more precise forecast of the impact on the climate of the activities in the servicing sector is presently not available. 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.

Co-financing

32. In response to decision 54/39(h) on potential financial incentives and opportunities for additional resources to maximize the environmental benefits from HPMPs pursuant to paragraph 11(b) of decision XIX/6 of the Nineteenth Meeting of the Parties, UNDP explained that the country will endeavor to explore co-financing opportunities with the Global Environment Facility (GEF) and other bilateral sources, keeping in consideration that, due to the normal project cycle of bilateral or GEF assistance, any request to these sources will take at least two years to be approved. No local sources of co-financing are being explored.

2010-2014 business plan of the Multilateral Fund

33. UNDP and UNEP are requesting US \$335,545 plus support costs for implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$320,814 including support costs is slightly above that in the business plan, as stage I is addressing more than 10 per cent of the baseline.

Draft Agreement

34. A draft agreement between the Government of Panama and the Executive Committee for HCFC phase-out is contained in Annex I of the present document.

RECOMMENDATION

35. In light of the Secretariat's comments above, in particular paragraph 28, the Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Panama for the period 2011 to 2015 to meet the 10 per cent reduction in HCFC consumption, at the amount of US \$364,561, consisting of US \$265,545 plus agency support costs of US \$19,916 for UNDP, and US \$70,000 plus agency support costs of US \$9,100 for UNEP.
- (b) Noting that the Government of Panama had agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption an estimated baseline of 24.77 ODP tonnes, calculated using actual consumption of 24.96 ODP tonnes and 24.58 ODP tonnes

reported for 2009 and 2010, respectively, under Article 7 of the Montreal Protocol, plus 2.5 ODP tonnes of HCFC-141b contained in imported pre-blended polyol systems, resulting in 27.27 ODP tonnes;

- (c) Deducting 4.78 ODP tonnes of HCFCs from the starting point for sustained aggregate reduction in HCFC consumption;
- (d) Approving the draft Agreement between the Government of Panama 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
- (f) Approving the first tranche of stage I of the HPMP for Panama, and the corresponding implementation plan, at the amount of US \$182,281, consisting of US \$132,773 plus agency support costs of US \$9,958 for UNDP, and US \$35,000 plus agency support costs of US \$4,550 for UNEP.

Annex I

**DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF PANAMA 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 Panama (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 22.29 ODP tonnes by 1 January 2015 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.
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, 4.2.3, 4.3.3, 4.4.3, 4.5.3 and 4.6.3 (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; and
- (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	22.24
HCFC-141b	C	I	2.30
HCFC-142b	C	I	0.18
HCFC-123	C	I	0.05
HCFC-124	C	I	0.01
HCFC-141b (1)	C	I	2.50
Total			27.27

(1) HCFC141b contained in imported pre-blended polyols (refer to Appendix 8-A)

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2011	2012	2013	2014	2015	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	24.77	24.77	22.29	n/a
1.2	Maximum allowable total consumption of Annex C Group I substances (ODP tonnes)	n/a	n/a	24.77	24.77	22.29	n/a
2.1	Lead IA UNDP agreed funding(US \$)	132,773	0	100,907	0	31,865	265,545
2.2	Support costs for Lead IA(US \$)	9,958	0	7,568	0	2,390	19,916
2.3	Cooperating IA UNEP agreed funding (US \$)	35,000	0	26,600	0	8,400	70,000
2.4	Support costs for Cooperating IA (US \$)	4,550	0	3,458	0	1,092	9,100
3.1	Total agreed funding (US \$)	167,773	0	127,507	0	40,265	335,545
3.2	Total support cost	14,508	0	11,026	0	3,482	29,016
3.3	Total agreed costs (US \$)	182,281	0	138,533	0	43,747	364,561
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)						2.48
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)						n/a
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)						19.76
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this agreement (ODP tonnes)						2.30
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)						n/a
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)						0.00
4.3.1	Total phase-out of HCFC-142b agreed to be achieved under this agreement (ODP tonnes)						n/a
4.3.2	Phase-out of HCFC-142b to be achieved in previously approved projects (ODP tonnes)						n/a
4.3.3	Remaining eligible consumption for HCFC-142b (ODP tonnes)						0.18
4.4.1	Total phase-out of HCFC-123 agreed to be achieved under this agreement (ODP tonnes)						n/a
4.4.2	Phase-out of HCFC-123 to be achieved in previously approved projects (ODP tonnes)						n/a
4.4.3	Remaining eligible consumption for HCFC-123 (ODP tonnes)						0.05
4.5.1	Total phase-out of HCFC-124 agreed to be achieved under this agreement (ODP tonnes)						n/a
4.5.2	Phase-out of HCFC-124 to be achieved in previously approved projects (ODP tonnes)						n/a
4.5.3	Remaining eligible consumption for HCFC-124 (ODP tonnes)						0.01
4.6.1	Total phase-out of HCFC-141b in pre-blended polyols agreed to be achieved under this agreement (ODP tonnes)						n/a
4.6.2	Phase-out of HCFC-141b in pre-blended polyols to be achieved in previously approved projects (ODP tonnes)						n/a
4.6.3	Remaining eligible consumption for HCFC-141b in pre-blended polyols (ODP tonnes)						2.50

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval at the first 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 higher monitoring function will be discharged by the Ministry of Health through its General Direction of Health and the Sub-direction of Environmental Health, which supervise the National Ozone Unit.
2. Additionally, the operational 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 the 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 \$140 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.

APPENDIX 8-A: SECTOR SPECIFIC ARRANGEMENTS

1. In accordance with decisions 61/47 and 63/15, a project to phase out the use of 22.76 mt (2.50 ODP tonnes) of HCFC-141b contained in pre-blended polyols will be submitted during stage I of the HPMP, when proven cost-effective and commercially available low global warming potential technology make it possible to replace the HCFC-141b used by small enterprises.
