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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Sixty-fourth Meeting  
Montreal, 25-29 July 2011

**PROJECT PROPOSAL: URUGUAY**

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/UNIDO

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## Uruguay

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HPMP	UNDP (lead), UNIDO

<b>(II) LATEST ARTICLE 7 DATA</b>	Year: 2009	22.0 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2010</b>	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123			0.0		0.0				0.0
HCFC-124					0.1				0.1
HCFC-141b		1.1			1.1				2.2
HCFC-141b in Imported pre-blended Polvol		5.8							5.8
HCFC-142b					0.5				0.5
HCFC22				1.9	19.9				21.8

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	24.7	Starting point for sustained aggregate reductions:	30
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	0.0	Remaining:	22.2

<b>(V) BUSINESS PLAN</b>		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	3.0	3.0	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	7.7
	Funding (US \$)	258,712	258,712	125,710	29,236	0	0	0	0	0	0	672,371
UNIDO	ODS phase-out (ODP tonnes)	1.4										1.4
	Funding (US \$)	384,886	0	0	0	0	0	0	0	0	0	384,886

<b>(VI) PROJECT DATA</b>				2011	2012	2013	2014	2015	Total
Montreal Protocol consumption limits				n/a	n/a	24.7	22.2	22.2	
Maximum allowable consumption (ODP tonnes)				n/a	n/a	24.7	22.2	22.2	
Project Costs requested in principle(US \$)	UNDP	Project costs		97,000		57,000		19,565	173,565
		Support costs		8,730		5,130		1,761	15,621
	UNIDO	Project costs		82,850					82,850
		Support costs		7,457					7,457
Total project costs requested in principle (US \$)				179,850		57,000		19,565	256,415
Total support costs requested in principle (US \$)				16,187		5,130		1,761	23,078
Total funds requested in principle (US \$)				190,637		62,130		21,326	279,493

<b>(VII) Request for funding for the first tranche (2011)</b>		
Agency	Funds requested (US \$)	Support costs (US \$)
UNDP	97,000	8,730
UNIDO	82,850	7,457

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

## PROJECT DESCRIPTION

1. On behalf of the Government of Uruguay UNDP, as the lead implementing agency, has submitted to the 64<sup>th</sup> Meeting of the Executive Committee stage I of an HCFC phase-out management plan (HPMP) at a total cost, as originally submitted, of US \$726,600 plus agency support costs of US \$42,525 for UNDP, and US \$14,364 for UNIDO. The implementation of the activities included in stage I of the HPMP would allow the Government to meet the 2013 and 2015 targets of the Montreal Protocol, with the understanding that the foams sector using HCFC-141b contained in fully formulated polyols will be addressed separately but still during the period of stage I in line with decision 63/15.

2. The first tranche for stage I being requested for the HPMP at this Meeting amounts to US \$184,300 plus agency support costs of US \$13,823 for UNDP and US \$100,000 plus agency support costs of US \$9,000 for UNIDO for the implementation of the 2011 annual implementation plan.

### ODS policy and regulatory framework

3. Uruguay has an established legal framework, or ozone regime, that promotes, supports and enforces ODS phase-out activities in the country. The Ministry of Environmental Protection (MVOTMA) through the National Directorate of Environment (DINAMA) is responsible for the implementation of this legal framework through an institutional infrastructure led by the National Ozone Unit (NOU), which coordinates ODS phase-out activities in close cooperation with its strategic partners from other Government offices, the private sector, academia and the organized civil society.

4. The ODS import licensing system has been in place in Uruguay since 2006. The MVOTMA establishes the maximum annual level of ODS imports in the country and gives the authority to the National Environmental Direction to operate, in coordination with the National Direction of Customs, the national registry of ODS imports and exports. This regulation also provides for the registration of import and export of HCFCs. As progress in the implementation of the HCFC phase-out programme takes place, new HCFC specific legislative policies will be introduced, which will include the introduction of a quota system for HCFC imports, as well as controls on imports of HCFC-using equipment by 2013.

### HCFC consumption

5. Uruguay imports HCFC-22, which represents more than 90 per cent of the total HCFCs imported in 2009 (in ODP tonnes), followed by HCFC-142b (3.5 per cent of total consumption) and HCFC-141b as pure substance (3.5 per cent). Small amounts of HCFC-123 and HCFC-124 were also imported. Uruguay also imports HCFC-141b in pre-blended polyols (Table 1). The HPMP identified 20 registered importers of HCFCs in the country, and the main sources of HCFC imports into the country are Argentina, China, India and Mexico.

Table 1: HCFCs imported into Uruguay (2007-2010)\*

HCFC*	2007		2008		2009		2010	
	mt	ODP tonnes	mt	ODP tonnes	mt	ODP tonnes	mt	ODP tonnes
HCFC-22	286.60	15.76	316.68	17.42	369.67	20.33	397.05	21.84
HCFC-142b	6.40	0.42	0.00	0.00	11.88	0.77	7.47	0.49
HCFC-141b	16.70	1.84	15.49	1.70	7.04	0.77	20.12	2.21
HCFC-123	0.00	0.00	0.91	0.02	1.59	0.03	2.12	0.04
HCFC-124	0.00	0.00	0.00	0.00	2.46	0.05	5.82	0.13
<b>Total</b>	<b>309.70</b>	<b>18.02</b>	<b>333.20</b>	<b>19.14</b>	<b>392.64</b>	<b>21.92</b>	<b>432.58</b>	<b>24.71</b>
HCFC-141b in imported pre-blended polyols	43.16	4.75	53.56	5.89	48.58	5.34	52.32	5.76

(\* ) 2007-2009 Article 7 data from Ozone Secretariat. 2010 data estimated based on imports.

6. The average growth in HCFC consumption from 2007 to 2010 was at 11.5 per cent per year. The highest increase occurred between the years 2008 and 2009 where growth was calculated at 17.9 per cent, mostly attributed to the ongoing replacement of CFCs in servicing applications. The current growth is estimated to stabilize at a level of 9 per cent overall. The forecast for HCFC consumption up to 2015 (based on the data gathered during the preparation of the HPMP) is shown in Table 2.

Table 2: Forecast for HCFC consumption up to 2015

	Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Unconstrained demand	mt	230	220	281	309.7	333.2	392.64	432.58	472	514	565.4	621.9	684.09
	ODP tonnes	13.04	12.93	15.69	18.02	19.14	21.95	24.70	26.92	29.34	32.2	35.5	39
Constrained demand	mt	230	220	281	309.7	333.2	392.64	432.58	472	514	412.61	412.61	371.33
	ODP tonnes	13.04	12.93	15.69	18.02	19.14	21.95	24.70	26.92	29.34	23.33	23.33	20.99
	HCFC-141b (ODP tonnes)						5.34	5.76	6.27	6.84	5.55	5.55	4.99

HCFC sector distribution

7. The consumption of HCFCs in Uruguay is mainly HCFC-22, which constitutes a little over 90 per cent of the total consumption in 2009. This is used in the refrigeration industry for servicing refrigeration and air-conditioning systems, with a small amount used in the manufacturing sector for the assembly and installation of large cold rooms. HCFC-141b consumption is attributed to flushing in the servicing sector. Additionally, some 48.58 mt of HCFC-141b were also imported in pre-blended polyols used for the manufacture of appliance foam, spray foam, and some flexible and integral skin foams. Some small amounts of other HCFCs are used in refrigerant blends in the country, as well as in some fire fighting applications. Table 3 below summarizes the sector distribution of HCFCs in Uruguay in 2010.

8. There are three enterprises that use HCFC-22 for the installation of cold rooms for supermarkets, processing plants, etc. The companies involved outsource the related insulation panels but are responsible for installing the rooms including the assembly of the cooling system and the filling of the system with HCFC-22. The total consumption attributed to this sector is an average of 35 mt in 2009 and 2010.

Table 3: Sector distribution of HCFCs in Uruguay (2010)

Substance	Consumption by Sector in 2010 (mt/ODP)								Grand Total	
	Foams		RACM		RACS		Fire Suppressants			
	mt	ODP	mt	ODP	mt	ODP	mt	ODP	mt	ODP
HCFC-22			35.00	1.93	362.05	19.91			397.05	21.84
HCFC-141b	10.30	1.13			9.82	1.08			20.12	2.21
HCFC-123					0.54	0.01	1.58	0.03	2.12	0.04
HCFC-124					5.82	0.13			5.82	0.13
HCFC-142b					7.47	0.49			7.47	0.49
<b>Total per Sector</b>	<b>10.30</b>	<b>1.13</b>	<b>35.00</b>	<b>1.93</b>	<b>385.70</b>	<b>21.62</b>	<b>1.58</b>	<b>0.03</b>	<b>432.58</b>	<b>24.70</b>
<b>HCFC-141b in pre-blended polyols</b>	<b>52.32</b>	<b>5.76</b>								

9. There are 15 foam manufacturing enterprises in the country, with a total estimated use of 48.58 metric tonnes (mt) of HCFC-141b contained in imported pre-blended polyols in 2009. One enterprise imports a small amount of pure HCFC-141b and blends onsite as well as importing pre-blended systems. Of these, all were associated with enterprises that are locally owned.

Calculation of the starting point

10. In its HPMP, Uruguay had calculated its HCFC consumption baseline at 23.3 ODP tonnes (412.6 mt) using the average of the consumption reported for 2009 of 21.92 ODP tonnes (392.64 mt) and the estimated consumption for 2010 of 24.71 ODP tonnes (432.58 mt), plus 5.3 ODP tonnes (48.43 mt) of HCFC-141b contained in imported pre-blended polyol systems (average of 2007-2009) not reported under Article 7. This resulted in a starting point of 28.6 ODP tonnes.

HCFC phase-out strategy and costs

11. The HPMP of Uruguay has been planned for implementation in three stages. Stage I which is currently submitted for funding is proposed to meet the 2013 and 2015 HCFC compliance levels. The HPMP activities will include a combination of activities aimed at strengthening the implementation of the legislative framework, improving servicing and maintenance practices, training for conversions/retrofits, and disincentives to the imports and installation of new equipment containing HCFCs. The HPMP also includes awareness-raising activities geared towards all sectors of the population. Activities planned for stage I take into account lessons learned from CFC phase-out. When appropriate and/or possible, previously implemented activities will be strengthened and will be complemented with new elements that will help lower the demand and use of HCFC-22.

12. The Government of Uruguay has defined stage I into five components under which concrete projects and activities to phase out HCFCs have been developed, as shown in Table 4 below.

Table 4: Phase-out activities proposed in the HPMP for Uruguay to achieve control measures in 2013 and 2015

<b>Activities/Projects</b>	<b>Agency</b>	<b>Cost (US \$)</b>
<b>Component 1: Adapting and promulgating policy instruments and build capacity for HCFC phase-out</b>	<b>UNDP</b>	<b>93,000</b>
Strengthening of licensing and quota system		18,000
Implementation of a control system for HCFCs, HCFC-based equipment		35,000
Implementation of control system for trade use and handling of HCFCs		40,000
Training and equipment for Customs Officers/Agents		-
<b>Component 2: Support programme for the refrigeration servicing sector</b>	<b>UNDP</b>	<b>324,065</b>
Phase-out of HCFC-141b in flushing activities		44,065
Training in good refrigeration practices and retrofits		112,000
Strengthening of centres		82,000
Certification system for skilled refrigeration technicians.		34,000
Pilot Centre for the recovery, recycling, reclamation (RRR) and storage of refrigerants		52,000
<b>Component 3: Phase-out of HCFC-22 used in assembly of cold rooms</b>	<b>UNIDO</b>	<b>159,600</b>
Conversion project for Frymon enterprises (14mt/0.77 ODP tonnes)		159,600
<b>Component 4: Awareness-raising programme</b>	<b>UNDP</b>	<b>65,935</b>
<b>Component 5: Monitoring programme</b>	<b>UNDP</b>	<b>84,000</b>
<b>TOTAL</b>		<b>726,600</b>

Phase-out of HCFC-22 in the refrigeration manufacturing sector for assembly of cold rooms

13. To meet the 2013 and 2015 phase-out targets, the Government of Uruguay is proposing to partially phase out the consumption of HCFC-22 used in the assembly of cold rooms. The HPMP has identified three enterprises with a total consumption of 35 mt of HCFC-22 in this application, and had included an investment project for the largest enterprise, Frymon, S.A. This project to be implemented by UNIDO will address the phase-out of 14.1 mt (0.77 ODP tonnes) of HCFC-22 in this sub-sector.

14. Frymon S.A. was established in the early 1980's and makes refrigeration chambers based on orders from customers. The company has several production areas and uses various models with different compressor types, all using HCFC-22 as refrigerant. Annually, the company makes a total of 30 chambers, and the operation includes the design of the cold room based on specifications, installation of the necessary panels and cooling and other related equipment which is often assembled onsite.

15. The baseline equipment consists of charging machines, vacuum and oil pumps, and other tools used to assemble these refrigerated cold rooms. Most of this equipment is tailored for the use of HCFC-22. Conversion to alternative refrigerants including possibly hydrocarbons would require a change in the baseline equipment and in the tubing machinery. This was estimated as originally submitted at US \$159,600 plus support costs. The project is expected to phase-out 14.1 mt of HCFC-22 which will contribute to meeting the 2013 and 2015 control measures.

#### Monitoring

16. The monitoring programme of the HPMP will allow the Government of Uruguay to coordinate and monitor the implementation of projects and activities included in the project components identified above.

### **SECRETARIAT'S COMMENTS AND RECOMMENDATION**

#### **COMMENTS**

17. The Secretariat reviewed the resubmitted HPMP 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 60<sup>th</sup> Meeting (decision 60/44), subsequent decisions on HPMPs made at the 62<sup>nd</sup> and 63<sup>rd</sup> meetings, and the 2011-2014 consolidated business plan submitted to the 63<sup>rd</sup> Meeting.

#### HCFC consumption

18. The Secretariat noted the discrepancy between the HCFC survey results and HCFC consumption data reported under Article 7, particularly for 2009. UNDP had indicated that in verifying the figures using the survey methodology, the country gathered figures for 2009 that were higher than those reported in Article 7. This was attributed to mistakes in recording import figures at the customs office. Noting this discrepancy, UNDP indicated that the country was considering a request for a revision of the 2009 data for submission to the Ozone Secretariat. In evaluating the situation, UNDP informed at a later stage that the country will not request data correction and will use the submitted Article 7 data for 2009 as reference. Corrective measures were taken at customs to avoid similar mistakes in the reports.

#### Starting point for aggregate reduction in HCFC consumption

19. The Secretariat also sought clarification from UNDP on the calculation of the starting point for aggregate reduction and the estimated baseline in the HPMP (412.6 mt) which used estimated data for 2010 based on the survey. It drew UNDP's attention to decision 63/14 where the Executive Committee decided that "calculation of the starting points for aggregate reductions in HCFC consumption for HCFC phase-out management plans should be based on the latest accepted HCFC consumption data reported under Article 7, consistent with decision 60/44 of the Executive Committee".

20. In view of the above, the Government of Uruguay subsequently submitted its 2010 Article 7 data officially to the Ozone Secretariat but this is not reflected in their website. Based on this, the Government of Uruguay revised its calculation of the starting point and chose, in accordance with decision 60/44 to establish as its starting point for sustained aggregate reduction in HCFC consumption the actual reported consumption in 2010. This was estimated at 24.71 ODP tonnes (432.58 mt), plus 5.3 ODP tonnes of

HCFC-141b contained in imported pre-blended polyol systems not reported under Article 7, resulting in a starting point for aggregate reduction of 30 ODP tonnes. This is higher than the business plan figure which indicated a baseline of 23.77 ODP tonnes (408.3 mt). The difference is due to the fact that the HCFC consumption for 2010 in the HPMP was based on actual reported data under Article 7 while the business plan calculated baseline consumption using the average of the 2009 reported consumption and 2010 was estimated at a growth of 8 per cent from 2009. Furthermore the HPMP also included the amount of HCFC-141b contained in imported pre-blended polyols in the calculation of the starting point. Consistent with the above the servicing sector starting point was calculated at 385.7 mt (21.62 ODP tonnes) based on table 3.

#### HPMP strategy

21. In its review of the HPMP, the Secretariat sought clarification from UNDP on the reduction to be covered. The HPMP had proposed that stage I would meet the 2013 and 2015 HCFC reduction measures only, but envisaged a total phase-out of 8.35 ODP tonnes a value more than 20 per cent of its original calculated starting point of 28.6 ODP tonnes, with requested funds going beyond what the country would be eligible for under decision 60/44 for the servicing sector. UNDP explained that the HPMP was designed so that it accounted for an increase in HCFC consumption, therefore the country needed to phase-out more than the 10 per cent in order to meet the 2013 and 2015 targets. It further mentioned that the funding requested was calculated based on what the country required to comply with the Protocol measures but was aware of the funding limits under decision 60/44. The Secretariat advised UNDP to consider extending stage I of the HPMP to cover the 35 per cent reduction in consumption by 2020 in line with decision 62/11, as the activities that are planned under the strategy would be very similar to those needed to meet this reduction and could accomplish more if planned for a longer period. UNDP informed the Secretariat that the Government wishes to maintain its request to cover only the 2013 and 2015 control measures under stage I of the HPMP, and commits to meet these phase-out targets.

22. In explaining what the HPMP intends to do with the small foam enterprises that use HCFC-141b in imported pre-blended polyols, UNDP mentioned that this sector will be addressed in line with decision 63/15, and could be submitted as part of stage I when proven cost-effective and commercially available low-GWP technology made it possible to replace the HCFC-141b used by small enterprises.

#### Technical and cost issues

23. The Secretariat discussed the funding requested for the regulatory framework for HCFCs, as it related to decision 54/39, the guidelines for HPMP preparation. UNDP explained that during the preparation of the HPMP, the NOU organized a number of consultations with several stakeholders to better understand the regulatory implications of accelerating the phase-out of HCFCs, thereby identifying additional measures that will have to be established and reinforced during the next five years. The current need would be to modify the existing regulatory framework to allow the establishment of a quota system that will set the maximum import volumes. The HPMP also proposes to implement an HCFC control system, training, and a system to extend control to ODS-based equipment in order to achieve an effective monitoring system within Uruguay.

24. With regard to the proposed activities for the phase-out of HCFC-141b used in flushing activities, the Secretariat notes that as flushing is part of the servicing sector, funding should be calculated within the activities eligible for the servicing sector. UNDP indicated that the country will ensure that the phase-out of this application is prioritized.

25. The Secretariat queried the training activities in the refrigeration servicing sector and how could these build upon those already done under the terminal phase-out management plan (TPMP). UNDP explained that these activities have been designed to build on the structures put in place by the CFC project and provide specialized training to convert equipment in areas of high consumption of HCFC-22

that were not eligible for conversion under the CFC phase-out framework, such as applications in refrigeration, and air conditioning.

26. The Secretariat and UNDP discussed the final funding for the costs of stage I of the HPMP based on the strategy of the Government of Uruguay to address HCFC consumption in both the refrigeration servicing and refrigeration manufacturing sector, which would meet only the freeze in HCFC consumption and the 10 per cent reduction by 2015. The funding for the servicing sector was calculated at a total of US \$173,565, plus support costs for UNDP, at US \$4.5/kg to phase-out 38.5 mt of HCFCs in the servicing sector.

27. In discussing the above recommended funding, in particular that for the servicing sector, UNDP brought to the attention of the Secretariat that the funding eligibility at US \$4.5/kg for this sector for Uruguay where the baseline was 385.7 mt to meet the 2015 control measures (i.e. US \$173,565 plus support costs) was lower than the maximum allowed funding for LVC countries whose consumption was between 300-360 mt for the same period (i.e. US \$198,000) based on decision 60/44. In further discussions, it was noted that as countries with a consumption between 361-400 mt fall under the non-LVC category and will be eligible for funding at US \$4.5/kg for phase-out in the servicing sector would in general receive less funds for similar activities than LVC countries and should therefore be considered as special cases. According to UNDP, Uruguay would like to seek clarification on how these situations can be treated in order to maintain equity between countries for activities in the servicing sector. The Secretariat noted this issue in document UNEP/OzL.Pro/ExCom/64/17 as one of the policy issues for the consideration of the Executive Committee.

#### Phase-out of HCFC-22 in the refrigeration manufacturing sector for assembly of cold rooms

28. With regard to the investment component for the conversion of the manufacturers of cold rooms, the Secretariat and UNIDO discussed the initial funding proposal in detail and reiterated the need to apply decision 62/14 where the Executive Committee, *inter alia*, “requested agencies when submitting projects related to the installation, assembly and charging sub-sector to demonstrate that each of those enterprises participating in the project had invested in equipment, development of products, or training of personnel specific to HCFC technology significantly exceeding the level of such investments prevalent in the service sector; and that these represent incremental costs”.

29. In addition, the Secretariat also raised issues on the choice of technology for the conversion, in particular, on the use of R-507 and R-404A as replacement for HCFC-22, UNIDO explained that these blends will be used as they are compatible with the current systems being installed for cold rooms. UNIDO also indicated that it will encourage the country to explore the possible use of hydrocarbons as an alternative for the remaining two enterprises.

30. Following these discussions, UNIDO adjusted the costs accordingly, and an agreement was reached that the total cost of the project will not be more than US \$82,850 plus support costs based on the cost components shown in Table 5 below to phase out 14 mt of HCFC-22.

Table 5: Agreed costs for the conversion of Frymon enterprises

<b>Equipment item</b>	<b>Quantity</b>	<b>Unit cost (US \$)</b>	<b>Total cost (US \$)</b>
Tools to replace and assembly new electronic valves & controllers, drivers	5 sets	1,720	8,600
Vacuum pump	5 sets	3,000	15,000
Oil pump	5 sets	250	1,250



<b>Equipment item</b>	<b>Quantity</b>	<b>Unit cost (US \$)</b>	<b>Total cost (US \$)</b>
Leak detectors	5 sets	500	2,500
Charging machine	5	700	3,500
Tube bending machinery modification (tools)	2	10,000	20,000
Training (Technical workshops)	2	10,000	20,000
On the job training (Nat Expert)	4 months	3,000	12,000
<b>Total</b>			<b>82,850</b>
UNIDO support costs	9%		7,457
<b>TOTAL COST MLF</b>			<b>90,307</b>

#### 2011-2014 business plan of the Multilateral Fund

31. Based on the above, the total funding for stage I of the HPMP for Uruguay is at the level of US \$256,415 plus support costs to phase out a total of 52.5 mt of HCFCs to meet the 10 per cent reduction of HCFCs in 2015. The total value requested for the period 2011-2014 of US \$279,493 including support costs was below that in the business plan because the business plan used a baseline based on an estimated figure while the HPMP used official reported data for 2009 and 2010. In addition, the agreed cost for the refrigeration manufacturing sector was lower than planned.

#### Impact on the climate

32. The HPMP indicated that Government of Uruguay will use whenever and wherever feasible low GWP replacement technologies for HCFCs, and will strive to achieve energy neutrality by selecting technologies that match insulation efficiency as close as possible—but within the context of minimizing the GWP.

33. The proposed technical assistance activities in the HPMP, which include the introduction of better servicing practices, enforcement of HCFC import controls and conversion of the assembly sector, will reduce the amounts of HCFC-22 and HCFC-141b used for refrigeration servicing. Each kilogram (kg) of HCFC-22 not emitted due to better refrigeration practices results in approximately 1.8 CO<sub>2</sub>-equivalent tonnes saved. Although a calculation of the impact on the climate was not indicated in the HPMP, the activities planned by Uruguay, in particular, the phase-out of HCFC-22 in the servicing and assembly sectors and its above average efforts to improve servicing practices and reduce refrigerant emissions indicate that it is likely that the country will achieve the 10,528 CO<sub>2</sub>-equivalent tonnes saved in emissions into the atmosphere estimated in the 2011-2014 business plan.

34. 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

35. The Secretariat noted that co-financing opportunities for mobilizing additional resources to maximize the environmental benefits of the HPMP for Uruguay were not clearly indicated in the HPMP document except that this will be through in-kind Government contributions and co-funding by recipients for non-eligible items such as structures, infrastructure and technology upgrades. The Secretariat encouraged UNDP to ensure Uruguay to explore more opportunities for co-funding especially in stage II of the HPMP.

### Draft Agreement

36. A draft Agreement between the Government of Uruguay and the Executive Committee for phase-out of consumption of HCFCs 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 Uruguay for the period 2011 to 2015, at the total amount of US \$279,493, consisting of US \$173,565 plus agency support costs of US \$15,621 for UNDP, and US \$82,850, plus agency support costs of US \$7,457 for UNIDO, on the understanding that:
  - (i) US \$173,565 was provided to address HCFC consumption in the refrigeration servicing sector to reach up to and including the 10 per cent reduction in 2015 in line with decision 60/44 based on the results of the discussion in agenda item 8(a) “Overview of issues identified during project review”; and
  - (ii) US \$82,850 was provided for the investment component for the phase-out of 14.0 metric tonnes of HCFC-22 in the assembly and installation of refrigerated cold rooms for the refrigeration manufacturing sector.
- (b) Noting that the Government of Uruguay had agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the level of consumption in 2010 which has been reported at 24.7 ODP tonnes under Article 7 of the Montreal Protocol, plus 5.3 ODP tonnes of HCFC-141b in imported pre-blended polyols systems, resulting in 30 ODP tonnes;
- (c) Approving the draft Agreement between the Government of Uruguay and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document;
- (d) Requesting the Secretariat, once the baseline data were known, to update Appendix 2-A to include the Agreement with the figures for maximum allowable consumption, and to notify the Executive Committee of the resulting change in the levels of maximum allowable consumption accordingly, and of any potential related impact on the eligible funding level, with any adjustments needed being made when the next tranche was submitted; and
- (e) Approving the first implementation plan for 2011-2012, and the first tranche of the stage I of the HPMP for Uruguay and the corresponding implementation plan at the amount of US \$190,637 consisting of US \$97,000 plus agency support costs of US \$8,730 for UNDP; and US \$82,850 plus agency support costs of US \$7,457 for UNIDO.

## Annex I

### **DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF URUGUAY 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 Uruguay (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 22.2 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, 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 which exceeds the level defined in row 1.2 of Appendix 2-A (“Maximum allowable total consumption of Annex C, Group I Substances”) 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 which 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 (“The Targets, and Funding”) 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. 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 (“The Targets, and Funding”) 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 60 days prior to the applicable Executive Committee meeting set out in the Funding Approval Schedule:
  - (a) That the Country has met the Targets for all relevant years. Relevant years are all years since the year in which the hydrochlorofluorocarbons phase-out management plan (HPMP) was approved. Exempt are 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;
  - (b) That the meeting of these Targets has been independently verified, except if 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 and received approval from the Executive Committee for an annual implementation plan in the form of Appendix 4-A (“Format of Implementation Reports and Plans”) 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 68<sup>th</sup> 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 in an annual implementation plan and approved by the Executive Committee as described in sub-paragraph 5(d) above. Major changes would relate to issues potentially concerning the rules and policies of the Multilateral Fund; changes which would modify any clause of this Agreement; changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches; and 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 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 annual implementation report; and
- (c) Any remaining funds will be returned to the Multilateral Fund upon closure of the last tranche of the plan.

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 UNIDO have agreed to be the cooperating implementing agencies (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 carrying out the activities of the overall plan with the changes approved as part of the subsequent submissions, including but not limited to independent verification as per sub-paragraph 5(b). 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 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 information necessary to verify compliance with this Agreement.

14. The completion 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 has been specified in Appendix 2-A. Should at that time activities be still outstanding 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 continue until the time of the completion if not specified by the Executive Committee otherwise.

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	21.84
HCFC-141b	C	I	2.21
HCFC-123	C	I	0.04
HCFC-124	C	I	0.13
HCFC-142b	C	I	0.49
<b>Sub-Total</b>			<b>24.7</b>
HCFC-141b in imported pre-blended polyols			5.3
<b>Total</b>			<b>30</b>

### APPENDIX 2-A: THE TARGETS, AND FUNDING

		2011	2012	2013	2014	2015	Total	
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	24.7	22.2	22.2		
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	n/a	24.7	22.2	22.2		
2.1	Lead IA UNDP agreed funding(US \$)	97,000		57,000		19,565	173,565	
2.2	Support costs for Lead IA(US \$)	8,730		4,275		1,474	15,621	
2.3	Cooperating IA UNIDO agreed funding (US \$)	82,850					82,850	
2.4	Support costs for Cooperating IA (US \$)	7,457					7,457	
3.1	Total agreed funding (US \$)	179,850		57,000		19,656	256,415	
3.2	Total support cost (US \$)	16,187		4,275		1,474	20,078	
3.3	Total agreed costs (US \$)	190,637		61,275		21,130	279,493	
4.1.1	Total phase-out of HCFC-22, HCFC-141b, HCFC-123, HCFC-124, HCFC-142b agreed to be achieved under this agreement (ODP tonnes)							2.5
4.1.2	Phase-out of HCFCs to be achieved in previously approved projects (ODP tonnes)							-
4.1.3	Remaining eligible consumption for HCFCs mentioned in 4.1.1(ODP tonnes)							22.2
4.2.1	Total phase-out of HCFC-141b in imported pre-blended polyols agreed to be achieved under this agreement (ODP tonnes)							5.3
4.2.2	Phase-out of polyols to be achieved in previously approved projects (ODP tonnes)							0
4.2.3	Remaining eligible consumption for polyols (ODP tonnes)							5.3

### APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the future tranches will be considered for approval not earlier than the second 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 regarding the progress since the approval of the previous tranche,

reflecting on 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 further highlight successes, experiences and challenges related to the different activities included in the Plan, reflecting on changes in the circumstances in the Country, and providing other relevant information. The report should also include information about and justification for any changes vis-à-vis the previously submitted tranche plan, 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 about 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 the planned submission of the next tranche request, highlighting their interdependence, and taking into account experiences made and progress achieved in the implementation of earlier tranches. The description should also include a reference to the overall plan and progress achieved, as well as any possible changes to the overall plan foreseen. The description should cover the years specified in sub-paragraph 5(d) of the Agreement. The description should also specify and explain any revisions to the overall plan which were found to be necessary;
- (d) A set of quantitative information for the report and plan, submitted into a database. As per the relevant decisions of the Executive Committee in respect to the format required, the data should be submitted online. 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), and will cover the same time periods and activities; it will also capture the quantitative information regarding any necessary revisions of the overall plan as per sub-paragraph 1(c) above. While the quantitative information is required only for previous and future years, the format will include the option to submit in addition information regarding the current year if desired by the Country and the Lead IA; and
- (e) An Executive Summary of about five paragraphs, summarizing the information of 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 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. These can be specified in the project document further, but include 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 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 organization 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 further, but include at least the following:

- (a) Providing policy development assistance 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.