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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-seventh Meeting
Montreal, 28 November – 2 December 2016

PROJECT PROPOSAL: URUGUAY

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

Phase-out

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

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Uruguay

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (stage II)	UNDP (lead)	n/a	n/a

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2015	15.78 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2015	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-141b	0	0	0	0	1.63	0	0	0	1.63
HCFC-142b	0		0	0	0.06	0	0	0	0.06
HCFC-22	0		0	1.10	12.88	0	0	0	13.98
HCFC-141b in imported pre-blended polyol	0	3.93	0	0		0	0	0	3.93

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	23.40	Starting point for sustained aggregate reductions:	28.66
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	4.18	Remaining:	24.48

(V) BUSINESS PLAN		2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	2.0	0	5.8	0	3.9	11.7
	Funding (US \$)	186,297	0	446,858	0	316,578	949,733

(VI) PROJECT DATA			2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			21.0	21.0	21.0	21.0	15.16	n/a
Maximum allowable consumption (ODP tonnes)			21.0	21.0	21.0	21.0	15.16	n/a
Project costs requested in principle (US \$)	UNDP	Project costs	314,000	0	679,889	0	111,268	1,105,157
		Support costs	21,980	0	47,592	0	7,789	77,361
Total project costs requested in principle (US\$)			314,000	0	679,889	0	111,268	1,105,157
Total support costs requested in principle (US\$)			21,980	0	47,592	0	7,789	77,361
Total funds requested in principle (US\$)			335,980	0	727,481	0	119,057	1,182,518

(VII) Request for funding for the first tranche (2016)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNDP	314,000	21,980
Total	314,000	21,980
Funding request:	Approval of funding for the first tranche (2016) as indicated above	

Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

1. On behalf of the Government of Uruguay, UNDP, as the designated implementing agency, has submitted to the 77th meeting stage II of the HCFC phase-out management plan (HPMP)¹, at the amount of US \$1,124,903, plus agency support costs of US \$78,743, as originally submitted. The implementation of stage II of the HPMP will phase out 11.25 ODP tonnes of HCFCs and assist Uruguay in meeting the Montreal Protocol compliance target of 35 per cent reduction by 2020.

2. The first tranche for stage II of the HPMP being requested at this meeting amounts to US \$314,000, plus agency support costs of US \$21,980 for UNDP.

Status of implementation of stage I of the HPMP

3. Stage I of the HPMP for Uruguay was approved at the 65th meeting to meet the 10 per cent reduction from the baseline by 2015 resulting in the phase-out of 4.18 ODP tonnes of HCFCs (i.e., 2.34 ODP tonnes of HCFC-22, 1.08 ODP tonnes of HCFC-141b, 0.04 ODP tonnes of HCFC-123, 0.09 ODP tonnes of HCFC-124 and 0.63 ODP tonnes of HCFC-142b), at the amount of US \$380,004, plus agency support costs. Stage I of the HPMP included only activities for the servicing sector. The fifth and final tranche of stage I was approved at the 75th meeting.

ODS policy and regulatory framework

4. The HCFC import control system was established in 2012, and an electronic platform for the licensing system (Ventanilla Unica de Comercio Exterior, VUCE) was developed in 2013; annual quotas have been issued since 2013, and imports and exports of all ODS are controlled through VUCE. Imports of hydrocarbons and ammonia as refrigerants and hydrofluorocarbons (HFCs) are recorded but not regulated. During stage I, 60 customs officers, brokers and importers were trained.

Progress in implementation of stage I

5. The results achieved include:

- (a) *Refrigeration servicing sector:* Equipment (i.e., cold chambers, milk coolers, air conditioners and refrigerators) was provided to the technological laboratory (Laboratorio Tecnológico del Uruguay, LATU) for training refrigeration and air-conditioning (RAC) technicians and testing of alternatives; training material was updated; 927 technicians were trained on good practices in refrigeration servicing and safe use of refrigerants including flammables; a workshop on flushing procedures and alternatives was organized, and two closed-cycle flushing tools were purchased;
- (b) *Awareness programme:* Awareness material on HCFC control measures and on alternatives was developed and distributed, and outreach activities were conducted with universities and colleges.

6. The National Ozone Unit (NOU)² was responsible for the coordination and management of stage I of the HPMP, and acted as the project implementation and monitoring unit (PMU).

¹As per the letter of 6 July 2016 from the Ministerio de Vivienda, Ordenamiento y Medio Ambiente of Uruguay to UNDP.

²Under the National Environmental Directorate (DINAMA) of the Ministry of Housing, Land Planning and Environment (MVOTMA).

Status of disbursements

7. As of August 2016, of the total funds of US \$380,004 approved, US \$368,811 had been disbursed. The remaining US \$11,193 will be disbursed by 31 December 2016, and any balances returned to the Multilateral Fund.

HCFC consumption

8. The starting point for aggregate reductions in HCFC consumption was established at 28.66 ODP tonnes, including 5.33 ODP tonnes of HCFC-141b contained in imported pre-blended polyols. Since stage I of the HPMP phased out a total of 4.18 ODP tonnes of HCFCs, the remaining consumption eligible for funding is 24.48 ODP tonnes (i.e., 18.74 ODP tonnes of HCFC-22, 0.41 ODP tonnes of bulk HCFC-141b, and 5.33 ODP tonnes of HCFC-141b contained in imported pre-blended polyols).

9. The Government of Uruguay reported a consumption of 15.78 ODP tonnes of HCFC in 2015 under Article 7 of the Montreal Protocol and 3.93 ODP tonnes of HCFC-141b contained in imported pre-blended polyols under the country programme (CP) implementation report. The 2011-2015 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Uruguay (2011-2015 Article 7 data)

HCFC	2011	2012	2013	2014	2015	Baseline
Metric tonnes						
HCFC-22	294.26	453.58	261.89	298.26	254.23	383.36
HCFC-123	0.57	2.13	0.74	1.54	1.60	1.86
HCFC-124	4.03	5.95	7.14	6.22	3.36	4.14
HCFC-141b	8.38	23.97	6.38	9.64	14.81	13.58
HCFC-142b	6.36	4.45	3.02	2.65	0.98	9.68
Total (mt)	313.60	490.08	279.17	318.31	274.98	412.61
HCFC-141b in imported pre-blended polyols*	41.95	61.91	60.88	51.62	35.69	48.4**
ODP tonnes						
HCFC-22	16.18	24.95	14.40	16.40	13.98	21.08
HCFC-123	0.01	0.04	0.01	0.03	0.03	0.04
HCFC-124	0.09	0.13	0.16	0.14	0.07	0.09
HCFC-141b	0.92	2.64	0.70	1.06	1.63	1.49
HCFC-142b	0.41	0.29	0.20	0.17	0.06	0.63
Total (ODP tonnes)	17.62	28.05	15.47	17.80	15.78	23.33
HCFC-141b in imported pre-blended polyols*	4.61	0	6.70	5.68	3.93	5.33**

*County programme data

**Average consumption between 2007 and 2009

10. The reductions in HCFC consumption are attributed to the activities in the refrigeration servicing sector conducted during stage I and the introduction of RAC systems based on R-404A, R-410A, R-507 refrigerants. The increase in consumption of HCFC-141b was due to stockpiling and increased inventories to reduce freight costs, and in anticipation of the ban on the imports of HCFC-141b, intended to be in place by 1 January 2018.

Polyurethane (PU) foam manufacturing sector

11. There is no systems house in Uruguay, therefore all HCFC-141b is imported in pre-blended polyols largely used to produce spray foam for rigid insulation and water heaters, with small amounts used in the manufacture of discontinuous panels, integral skin foam for the furniture industry, thermoware and flotation devices, by 24 small and medium-sized enterprises (SMEs) (Table 2).

Table 2. Estimated 2013-2015 average consumption of HCFC-141b contained in imported pre-blended polyols

Subsector	Consumption		Percentage (%)
	mt	ODP tonnes	
Water heaters	13.07	1.44	26
Discontinuous panels	1.04	0.11	2
Thermoware	0.12	0.01	0
Integral skin	0.28	0.03	1
Spray	35.62	3.92	71
Flotation	0.10	0.01	0
Total	50.23	5.53	100

HCFC consumption in the refrigeration servicing sector

12. HCFC-22 is mainly used for servicing equipment in the commercial refrigeration subsector (62 per cent), residential and commercial air-conditioning (17 per cent), industrial refrigeration (11 per cent), some chillers (6 per cent) and transport refrigeration (4 per cent). In addition, HCFC-22 (1.1 ODP tonnes) is used for the assembly of cold rooms (considered part of the servicing sector) and HCFC-141b (1.63 ODP tonnes) for flushing refrigeration circuits.

Stage II of the HPMP

13. The activities to be implemented during stage II include regulatory and control measures; phase-out of HCFC-141b contained in imported pre-blended polyols; assistance to the RAC servicing sector; awareness campaign to promote HCFC phase-out; and implementation and monitoring.

Regulatory and control measures

14. The following activities will be implemented:

- (a) Review and strengthen the legal framework to control HCFC consumption through an assessment of the licensing and quota system for HCFC to improve control, monitoring and reporting; develop standards on the safe use of flammable refrigerants; and develop guidelines for the adoption of low-global warming potential (GWP) alternatives in the country (US \$35,200); and
- (b) Technical assistance to the Customs Directorate through training of 80 customs officers and 20 brokers; update of customs training manual on HCFC control; and development of online training modules (US \$33,000).

Activities in the PU foam sector

15. Stage II proposes to completely phase-out 5.53 ODP tonnes (i.e. 5.43 ODP tonnes of eligible and 0.10 ODP tonnes of non-eligible) consumption of HCFC-141b contained in imported pre-blended polyols used as a foam-blowing agent through the conversion of 21 eligible out of the 24 identified enterprises to hydro-fluoro-olefins (HFO) technology. Out of the 21, funding for incremental costs is requested for only 19, as two have consumption of less than 100 kg/year and will be assisted through technical assistance and the provision of incremental operating costs (IOC). The remaining consumption eligible for funding of HCFC-141b contained in imported pre-blended polyols for Uruguay is only 5.33 ODP tonnes.

16. Incremental capital costs (ICC) included a cooling system for HFO-based formulated polyols (US \$65,000), technical assistance, trials and training (calculated at US \$15,000 for each foam enterprise with consumption of HCFC-141b above 10 mt; US \$10,000 for enterprises with consumption up to 10 mt; US \$3,000 for enterprises with consumption between 0.5 and 10 mt; and US \$1,300 for enterprises with

consumption below 0.5 tonnes); project management through the NOU (US \$1,500 each); and technical assistance (US \$10,000) for a total cost of US\$251,680. Incremental operating costs (IOC) were estimated at US \$482,519 (i.e., US\$9.78/kg based on the actual consumption of 49.32 mt (5.43 ODP tonnes) for the 21 eligible enterprises.

17. The total cost of the PU foam sector has been estimated at US \$734,199, with funding requested at the amount of US \$540,703 based on a cost-effectiveness of US \$10.96/kg in line with decision 74/50(c), summarized in Table 3.

Table 3. Total cost for the conversion of the PU foam sector*

Item	Enterprises consumption (mt)	Number of enterprises	Unitary cost US \$/unit	Cost (US \$)
Cooling system	Above 0.5	13	5,000	65,000
Tests, trials and training	Between 10 and 20	1	15,000	15,000
	Between 1 and 10	10	10,000	100,000
	Between 0.5 and 1	2	3,000	6,000
	Between 0.1 and 0.5	6	1,300	7,800
Contingency (10 %) (applicable to cooling system and trials and testing)				19,380
Subtotal				213,180
Technical assistance (including two enterprises with consumption less than 100 kg)		n/a	10,000	10,000
Project management		19*	1,500	28,500
Total (ICC)				251,680
IOC				482,519
Total cost				734,199
Funds requested (based on US\$10.96/kg)				540,703

*Of the 21 eligible enterprises, only 19 are included for funding due to very small consumption (less than 100 kg/year) of two.

Activities in the refrigeration servicing sector

18. The following activities will be implemented:

- (a) Training of 40 trainers and 800 technicians on good refrigeration servicing practices; update training manual to include emerging technologies (i.e., HFO and CO₂) and safe use and handling of flammable refrigerants; and promotion of alternatives to HCFC-141b in flushing (e.g. Acemire, stag-flush and closed-cycle machines) (US \$160,600);
- (b) Implementation of a pilot project to assess the impact of applying good refrigeration practices in RAC maintenance through analysis of the experience gained in previously implemented training programmes in order to develop standard procedures for technicians, with a focus on commercial refrigeration; preparation of the assessment report, and dissemination of results for end-users (US \$40,700);
- (c) Workshops on low-GWP and energy-efficient RAC technologies for 80 trainers, installer engineers and decision-makers; provision of RAC equipment (practice equipment using alternative technologies) to one training facility; development of a sustainable public procurement programme (SPP), to adopt criteria specifying the use of equipment operating with low-GWP alternatives and require procurement processes to specify these when preparing technical specifications for goods to be procured (US \$90,200);
- (d) Pilot project to demonstrate the use of low-GWP, energy-efficient alternatives in cold rooms through assessment of comparative performance and energy efficiency with HCFC-22-based systems, identification of safety and control requirements in installation and maintenance, and cost analysis (US \$58,300); and

- (e) Awareness and promotion of good refrigeration practices amongst technicians and end-users through development and distribution of technical information for refrigeration technicians, update of the good refrigeration practices manual, and general awareness activities (US \$63,800).

Implementation and monitoring activities

19. The PMU established under the NOU will perform the following activities: identification and selection of beneficiaries, procurement of goods and services, technical assistance to project beneficiaries, data collection, monitoring of trends on the use of HCFCs and alternatives, preparation of reports and implementation plans (US \$102,400).

Total cost of stage II of the HPMP

20. The total cost of stage II of the HPMP has been estimated at US \$1,124,903, as originally submitted (excluding support costs). The proposed activities will result in the phase-out of 11.25 ODP tonnes of HCFCs (including 5.53 ODP tonnes of HCFC-141b contained in imported pre-blended polyols) at a total cost-effectiveness of US \$7.8/kg. Detailed activities and cost, as originally submitted, are shown in Table 4.

Table 4. Total cost of stage II of the HPMP for Uruguay

Sector/component	Substance	Phase out		Cost (US \$)	CE (US\$/kg)
		mt	ODP tonnes		
Foam sector plan	HCFC-141b (polyol)	50.24*	5.53*	540,703	10.76
Regulatory and control measures	HCFC-22	14.20	0.78	68,200	4.80
Refrigeration servicing	HCFC-22	82.43	4.53	413,600	
	HCFC-141b	3.72	0.41		
Implementation and monitoring				102,400	
Total stage II		150.59	11.25	1,124,903	7.78

*remaining consumption eligible for funding is 5.33 ODP tonnes

Activities Planned for the first tranche

21. The first funding tranche of stage II (US \$314,000) will be implemented up to December 2017 and will include:

- (a) Review and strengthening of the legal framework to control HCFC consumption, conduct of meetings with stakeholders to discuss initiatives; and presentation of initial draft of new norms (US \$11,000);
- (b) Train 50 Customs officers and update training manual (US \$13,750);
- (c) Initiate activities for conversion of foam enterprises to HFO and conduct initial tests (US \$100,000);
- (d) Train-the-trainers workshop and training of technicians in good refrigeration practices (US \$46,750);
- (e) Technical assistance for the adoption of low-GWP, high energy efficiency refrigerants (US \$24,750); preparation for draft pilot project for alternative refrigerants in cold rooms (US \$17,600), and end-users incentive programme (US \$14,300);

- (f) Develop sustainable public procurement programme framework, prepare initial report on criteria and procedures (US \$11,000);
- (g) Awareness raising for the RAC sector and the general public to promote phase-out of HCFC and protection of the environment (US \$39,050); and
- (h) PMU (US \$35,800).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

22. The Secretariat reviewed stage II of the HPMP for Uruguay in light of stage I, the policies and guidelines of the Multilateral Fund, including the criteria for funding HCFC phase-out in the consumption sector for stage II of HPMPs (decision 74/50), and the 2016-2018 business plan of the Multilateral Fund.

23. The Secretariat noted the comprehensive strategy proposed by the Government of Uruguay, to achieve the 35 per cent reduction from the HCFC baseline by 2020, with an actual phase-out reaching 42 per cent from the baseline.

Verification report

24. The verification report confirmed that Uruguay is implementing a licensing and quota system for imports and exports of HCFCs and that consumption of HCFCs in 2015 (15.78 ODP tonnes) was in compliance with the Montreal Protocol and the consumption targets established in the Agreement between the Government of the Uruguay and the Executive Committee.

Issues related to the PU foam manufacturing sector

25. In line with decision 74/20³, UNDP provided a letter from an HFO supplier confirming the commercial availability of HFOs in Uruguay from 2017.

26. The Secretariat and UNDP discussed in detail the cost items related to the cooling system (US \$71,500), trials and testing (US \$141,680), and project management (US \$28,500) and technical assistance (US \$10,000), for the conversion of the 19 enterprises. Consultations with foam technical experts confirmed that a cooling system is not required for HFO pre-blended polyols, and, therefore the request for this system was not eligible. As the 19 foam enterprises will continue importing pre-blended polyols from systems houses/systems suppliers outside the country, the request for project management costs were not eligible. In the absence of a local systems house, it was however considered relevant to provide further technical assistance and support to the foam enterprises (noting that they are categorized as SMEs).

27. The IOC calculation was based on a cost of US \$15.00/kg for HFO-1233zd(E). In light of similar foam projects approved in the region, a cost of US\$ 8.60/kg was agreed resulting in a reduction of IOC by US \$65,810, based on the remaining consumption eligible for funding of 5.33 ODP tonnes (48.45 mt). IOC and technical assistance will be provided to the two remaining very small enterprises which have consumption less than 100 kg/year.

28. Table 5 summarizes the agreed costs for the PU foam sector plan in Uruguay.

³Information from the suppliers on how and when an adequate supply of the technology would be made available to the country for the technologies selected (i.e., HFO-1233zd(E))

Table 5. Total agreed cost for the conversion of the PU foam sector*

Item	Enterprises consumption (mt)	Unitary cost US \$/unit	Number of enterprises	Cost (US \$)
Technical assistance (including two enterprises with consumption less than 100 kg) and project management	n.a.	25,000	n/a	25,000
Subtotal				25,000
Tests, trials and training	Between 10 and 20	10,000	1	10,000
	Between 1 and 10	5,000	10	50,000
	Between 0.5 and 1	3,000	2	6,000
	Between 0.1 and 0.5	1,300	6	7,800
Contingency (10 %)				7,380
Subtotal				81,180
Total (ICC)				106,180
IOC				416,709
Funds requested from the Multilateral Fund (5.33 ODP tonnes)				522,889
Cost effectiveness (US\$/kg) based on the remaining 48.45 mt consumption eligible for funding				10.79
Cost effectiveness (US\$/kg) based on actual phase-out of 50.24 mt (including 1.01 mt non-eligible for funding)				10.40

*Of the 24 enterprises, 21 were eligible, and only 19 are provided funding due to very small consumption of two (less than 100 kg per year).

29. The Government of Uruguay also commits to impose a ban on the import of HCFC-141b in bulk, and contained in imported pre-blended polyols after completion of the foam enterprises conversions, no later than 1 January 2021 in line with decision 61/47(c)(iv).

Issues related to the refrigeration servicing sector

30. In response to whether toolkits for technicians will be provided as part of the technician training course, UNDP indicated that due to the large number of technicians and the limited budget, this would not be done under stage II. Instead, the training centres will be provided with equipment for use during hands-on training for the technicians, with the expectation that such basic tools are available at the service workshops.

31. With regard to the technicians' certification, UNDP clarified that technicians receive a certification diploma after training, and work is ongoing to ensure that this becomes a requirement when hiring RAC technicians. The NOU will continue working closely with the refrigeration association and technicians association to reinforce the requirement for the certification diploma when working with RAC systems during stage II.

32. UNDP confirmed that the sustainability of the technicians' training programme is assured through agreements and close cooperation with educational institutions, such as the Technical University of Uruguay (UTU) and other private academic and training institutions which have committed to include concepts of good refrigeration practices in their academic curriculum. This approach initiated in stage I, will continue to be followed during stage II.

Revised overall cost of the HPMP stage II

33. Further to discussions with UNDP, the total level of funding agreed for stage II of the HPMP is presented in Table 6.

Table 6. Agreed cost for stage II of the HPMP

Sector/component	Substance	Phase out		Cost (US \$)	CE (US\$/kg)
		mt	ODP tonnes		
Foam sector plan	HCFC-141b (polyol)	50.24*	5.53*	522,889	10.40
Regulatory and control measures	HCFC-22	14.20	0.78	68,200	4.80
Refrigeration servicing	HCFC-22	82.43	4.53	413,600	
	HCFC-141b	3.72	0.41		
Implementation and monitoring (PMU)				100,468	
Total stage II		150.59	11.25	1,105,157	7.78

*Actual phase out, remaining eligible consumption of HCFC-141b in imported pre-blended polyols is 48.45 mt.

Impact on the climate

34. The conversion of the PU foam manufacturing enterprises in Uruguay would avoid the emission into the atmosphere of some 35,985 tonnes of CO₂ equivalent per year, as shown in Table 7.

Table 7. Impact on the climate of PU foam projects

Substance	GWP	Tonnes/year	CO ₂ -eq (tonnes/year)
Before conversion			
HCFC-141b	725	50.24	36,424
After conversion			
HFO	~20	22	440
Impact			(35,985)

35. In addition, the proposed technical assistance activities and actions in the servicing sector, which include training in good service practice to reduce leakage rates and to facilitate the adoption of low GWP alternatives, would reduce the amount of HCFC-22 used for refrigeration servicing. Each kilogram of HCFC-22 not emitted due to better refrigeration practices results in the savings of approximately 1.8 CO₂ equivalent tonnes.

Co-financing

36. Co-financing would be provided through in-kind Government contribution for provision of personnel, office and storage space, testing facilities in the government laboratory and transportation. Co-financing from recipients would be provided for non-eligible items (i.e., counterpart funding was estimated at US \$193,496 to cover non-eligible components and activities above the cost-effectiveness threshold).

2016-2018 draft business plan of the Multilateral Fund

37. UNDP is requesting US \$1,105,157, plus agency support costs for the implementation of stage II of the HPMP. The total value requested of US \$1,063,461 including support costs, for the period 2016 to 2018, is US \$430,306 above the amount in the business plan for the same period.

Draft Agreement

38. A draft Agreement between the Government of Uruguay and the Executive Committee for the phase-out of HCFCs in stage II of the HPMP is contained in Annex I to the present document.

RECOMMENDATION

39. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for Uruguay for the period 2016 to 2020 to reduce HCFC consumption by 35 per cent of its baseline, in the amount of US \$1,105,157 plus agency support costs of US \$77,361;
- (b) Noting the commitment by the Government of Uruguay to ban imports of HCFC-141b, both pure and contained in imported pre-blended polyols, after the conversion of enterprises are completed, and no later than 1 January 2021;
- (c) Deducting 11.25 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding and noting that no further funding is available for consumption of HCFC 141b contained in imported pre-blended polyols;
- (d) Approving the draft Agreement between the Government of Uruguay and the Executive Committee for the reduction in consumption of HCFCs, in accordance with stage II of the HPMP, contained in Annex I to the present document; and
- (e) Approving the first tranche of stage II of the HPMP for Uruguay, and the corresponding tranche implementation plans, in the amount of US \$314,000, plus agency support costs of US \$21,980.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF URUGUAY AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE II OF THE HCFC PHASE-OUT MANAGEMENT PLAN

Purpose

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 15.16 ODP tonnes by 1 January 2020 in compliance with Montreal Protocol schedule.
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 consumption eligible for funding).
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 stage II of the HCFC phase-out management plan (HPMP) approved (“the Plan”). 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.

Conditions for funding release

5. The Executive Committee will only provide the Funding in accordance with the Funding Approval Schedule when 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 has 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 there are no due country programme implementation reports 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 for all relevant years, unless the Executive Committee decided that such verification would not be required;
- (c) That the Country had submitted a Tranche Implementation Report in the form of Appendix 4-A (“Format of Tranche 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; and
- (d) That the Country has submitted a Tranche 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.

Monitoring

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 Tranche Implementation Plans in accordance with their roles and responsibilities set out in the same appendix.

Flexibility in the reallocation of funds

7. The Executive Committee agrees that the Country may have the flexibility to reallocate part or all of the approved 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 a Tranche Implementation Plan as foreseen in sub-paragraph 5(d) above, or as a revision to an existing Tranche 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;
 - (iv) Provision of funding for activities not included in the current endorsed Tranche Implementation Plan, or removal of an activity in the Tranche Implementation Plan, with a cost greater than 30 per cent of the total cost of the last approved tranche; and
 - (v) Changes in alternative technologies, on the understanding that any submission for such a request would identify the associated incremental costs, the potential impact to the climate, and any differences in ODP tonnes to be phased out if applicable, as well as confirm that the Country agrees that potential savings related to the change of technology would decrease the overall funding level under this Agreement accordingly;
- (b) Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the

Executive Committee in the subsequent Tranche Implementation Report;

- (c) Any enterprise to be converted to non-HCFC technology included in the Plan and that would be found to be ineligible under the policies of the Multilateral Fund (i.e., due to foreign ownership or establishment post the 21 September 2007 cut-off date), would not receive financial assistance. This information would be reported as part of the Tranche Implementation Plan;
- (d) The Country agrees, in cases where HFC technologies have been chosen as an alternative to HCFCs, and taking into account national circumstances related to health and safety: to monitor the availability of substitutes and alternatives that further minimize impacts on the climate; to consider, in the review of regulations standards and incentives adequate provisions that encourage introduction of such alternatives; and to consider the potential for adoption of cost-effective alternatives that minimize the climate impact in the implementation of the HPMP, as appropriate, and inform the Executive Committee on the progress accordingly in tranche implementation reports; and
- (e) Any remaining funds held by the bilateral or implementing agencies or the Country under the Plan will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

Considerations for the refrigeration servicing sector

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sector included in the Plan, 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 relevant bilateral and/or implementing agencies would take into consideration relevant decisions on the refrigeration servicing sector during the implementation of the Plan.

Bilateral and implementing agencies

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. The United Nations Development Programme (UNDP) has agreed to be the lead implementing agency (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 the Lead IA 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). The role of the Lead IA is contained in Appendix 6-A. The Executive Committee agrees, in principle, to provide the Lead IA with the fees set out in row 2.2 of Appendix 2-A.

Non-compliance with the Agreement

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 decisions are taken, the specific case of non-compliance with this Agreement will not be an impediment for the provision of funding 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 decisions 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 and the Lead IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA with access to the information necessary to verify compliance with this Agreement.

Date of completion

14. The completion of the Plan 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 at that time there still be activities that are outstanding, and which were foreseen in the last Tranche Implementation Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion of the Plan 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 of the Plan unless otherwise specified by the Executive Committee.

Validity

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.

16. This Agreement may be modified or terminated only by mutual written agreement of the Country and the Executive Committee of the Multilateral Fund.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	21.08
HCFC-123	C	I	0.04
HCFC-124	C	I	0.09
HCFC-141b	C	I	1.49
HCFC-142b	C	I	0.63
Sub-total			23.33
HCFC-141b contained in imported pre-blended polyols	C	I	5.33
Total	C	I	28.66

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2016	2017	2018	2019	2020	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	21.0	21.0	21.0	21.0	15.16	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	21.0	21.0	21.0	21.0	15.16	n/a
2.1	Lead IA (UNDP) agreed funding (US \$)	314,000	-	679,889	-	111,268	1,105,157
2.2	Support costs for Lead IA (US \$)	21,980	-	47,592	-	7,789	77,361
3.1	Total agreed funding (US \$)	314,000	-	679,889	-	111,268	1,105,157
3.2	Total support costs (US \$)	21,980	-	47,592	-	7,789	77,361
3.3	Total agreed costs (US \$)	335,980	-	727,481	-	119,057	1,182,518
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)						5.31
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)						2.34
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)						13.43
4.2.1	Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)						0.00
4.2.2	Phase-out of HCFC-123 to be achieved in previously approved projects (ODP tonnes)						0.04
4.2.3	Remaining eligible consumption for HCFC-123 (ODP tonnes)						0.00
4.3.1	Total phase-out of HCFC-124 agreed to be achieved under this Agreement (ODP tonnes)						0.00
4.3.2	Phase-out of HCFC-124 to be achieved in previously approved projects (ODP tonnes)						0.09
4.3.3	Remaining eligible consumption for HCFC-124 (ODP tonnes)						0.00
4.4.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)						0.41
4.4.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)						1.08
4.4.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)						0.00
4.5.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)						0.00
4.5.2	Phase-out of HCFC-142b to be achieved in previously approved projects (ODP tonnes)						0.63

4.5.3	Remaining eligible consumption for HCFC-142b (ODP tonnes)	0.00
4.6.1	Total phase-out of HCFC-141b contained in imported pre-blended polyols agreed to be achieved under this Agreement (ODP tonnes)	5.33
4.6.2	Phase-out of HCFC-141b contained in imported pre-blended polyols to be achieved in previously approved projects (ODP tonnes)	0.00
4.6.3	Remaining eligible consumption for HCFC-141b contained in imported pre-blended polyols (ODP tonnes)	0.00

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

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

APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORTS AND PLANS

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

- (a) A narrative report, with data provided by tranche, describing the progress achieved since 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 the amount of ODS phased 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 Tranche 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;
- (b) An independent verification report of the Plan results and the consumption of the Substances, 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 during the period covered by the requested tranche, highlighting implementation milestones, the time of completion and 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 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 Tranche Implementation Reports and Plans,

submitted through an online database; and

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

2. In the event that in a particular year two stages of the HPMP are being implemented in parallel, the following considerations should be taken in preparing the Tranche Implementation Reports and Plans:

- (a) The Tranche Implementation Reports and Plans referred to as part of this Agreement, will exclusively refer to activities and funds covered by this Agreement; and
- (b) If the stages under implementation have different HCFC consumption targets under Appendix 2-A of each Agreement in a particular year, the lower HCFC consumption target will be used as reference for compliance with these Agreements and will be the basis for the independent verification.

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The project coordination and management of the Plan will be the National Ozone Unit (NOU), a part of the National Environmental Directorate (DINAMA) of the Ministry of Housing, Land planning and Environment (MVOTMA). MVOTMA will assure passage of all national laws and regulations. The NOU is directly responsible for the implementation of Montreal Protocol related activities, for the identification, implementation, monitoring and evaluation of all non-investment, investment, and technical assistance activities. Ozone protection matters will have an important participation on national strategies and environmental policies. The strategic partners of the NOU are:

- (a) National Customs Directorate (DNA) with whom the NOU shares the responsibility for the implementation of the HCFC import licensing system and control trade of HCFC;
- (b) Technological Laboratory of Uruguay (LATU) functioning as technical branch for the NOU;
- (c) Technological University of Uruguay (UTU) supporting training activities and assessment of new technologies; and
- (d) Importers of HCFCs and HCFC blends who provide information that allows validation of customs data, tracking of stockpiles, downstream HCFC applications.

2. The NOU will prepare for each tranche request a status report on its activities and achievements including milestones and other performance targets as well as any other information of interest to the implementation of the HPMP. This report will be reviewed and verified by the Lead IA.

3. The Lead IA has the overall financial and substantive oversight over the execution of the HPMP. The NOU is required to provide regular expenditure report to the Lead IA.

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 Tranche Implementation Reports and Plans as per Appendix 4-A;
- (c) Providing independent verification to the Executive Committee that the Targets have been met and associated tranche activities have been completed as indicated in the Tranche 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 Tranche Implementation Plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
- (e) Fulfilling the reporting requirements for the Tranche Implementation Reports and Plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee;
- (f) In the event that the last funding tranche is requested one or more years prior to the last year for which a consumption target had been established, annual tranche implementation reports and, where applicable, verification reports on the current stage of the Plan should be submitted until all activities foreseen had been completed and HCFC consumption targets had been met;
- (g) Ensuring that appropriate independent technical experts carry out the technical reviews;
- (h) Carrying out required supervision missions;
- (i) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;
- (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, the allocation of the reductions to the different budget items and to the funding of the Lead IA;
- (k) Ensuring that disbursements made to the Country are based on the use of the indicators;
- (l) Providing assistance with policy, management and technical support when required; and
- (m) Timely releasing funds to the Country/participating enterprises for completing the activities related to the project.

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 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 \$202.13 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, on the understanding that the maximum funding reduction would not exceed the funding level of the tranche being requested. Additional measures might be considered in cases where non-compliance extends for two consecutive years.

2. In the event that the penalty needs to be applied for a year in which there are two Agreements in force (two stages of the HPMP being implemented in parallel) with different penalty levels, the application of the penalty will be determined on a case-by-case basis taking into consideration the specific sectors that lead to the non-compliance. If it is not possible to determine a sector, or both stages are addressing the same sector, the penalty level to be applied would be the largest.