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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-fifth Meeting
Montreal, 25-29 May 2020
Postponed to 19-22 July 2020*

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, third tranche) UNDP

* Due to coronavirus disease (COVID-19)

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Uruguay

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (Stage II)	UNDP	77 th	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2018	9.04 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2018	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22				1.10	6.55				7.65
HCFC-141b					1.33				1.33
HCFC-142b					0.02				0.02
HCFC-123			0.03		0.00				0.03
HCFC-124					0.01				0.01
HCFC-141b in imported pre-blended polyol			6.48						6.48

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	23.33	Starting point for sustained aggregate reductions:	28.66
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	15.23	Remaining:	13.43

(V) BUSINESS PLAN		2020	Total
UNDP	ODS phase-out (ODP tonnes)	1.1	1.1
	Funding (US \$)	119,057	119,057

(VI) PROJECT DATA			2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			21.00	21.0	21.00	21.00	15.16	n/a
Maximum allowable consumption (ODP tonnes)			21.00	21.0	21.00	21.00	15.16	n/a
Agreed funding (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
Funds approved by ExCom (US \$)	UNDP	Project costs	314,000	0	679,889	0	0	993,889
		Support costs	21,980	0	47,592	0	0	69,572
Total funds requested for approval at this meeting (US \$)	UNDP	Project costs	0	0	0	0	111,268	111,268
		Support costs	0	0	0	0	7,789	7,789

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Uruguay, UNDP as the designated implementing agency, has submitted a request for funding for the third and final tranche of stage II of the HCFC phase-out management plan (HPMP), at the amount of US \$111,268, plus agency support costs of US \$7,789.¹ The submission includes a progress report on the implementation of the second tranche, the verification report on HCFC consumption for 2018-2019 and the tranche implementation plan for 2020.

Report on HCFC consumption

2. The Government of Uruguay reported, based on the verification report, a consumption of 14.08 ODP tonnes of HCFC in 2019, which is 40 per cent below the HCFC baseline for compliance. The 2015-2019 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Uruguay (2015-2019 Article 7 data)

HCFC	2015	2016	2017	2018	2019*	Baseline
Metric tonnes						
HCFC-22	254.23	295.35	273.04	139.06	246.58	383.36
HCFC-123	1.60	2.02	1.30	1.51	1.11	1.86
HCFC-124	3.36	2.42	5.45	0.52	1.31	4.14
HCFC-141b	14.81	0.00	13.42	12.11	4.08	13.58
HCFC-142b	0.98	1.35	0.84	0.31	0.33	9.68
Total (mt)	274.98	301.14	294.05	153.52	253.41	412.61
HCFC-141b in imported pre-blended polyols**	35.69	42.85	49.75	58.89	51.47	48.40***
ODP tonnes						
HCFC-22	13.98	16.24	15.02	7.65	13.56	21.08
HCFC-123	0.03	0.04	0.03	0.03	0.02	0.04
HCFC-124	0.07	0.05	0.12	0.01	0.03	0.09
HCFC-141b	1.63	0.00	1.48	1.33	0.45	1.49
HCFC-142b	0.06	0.09	0.05	0.02	0.02	0.63
Total (ODP tonnes)	15.78	16.42	16.69	9.04	14.08	23.33
HCFC-141b in imported pre-blended polyols**	3.93	4.71	5.47	6.47	5.66	5.33***

*Data from the verification report on HCFC consumption.

**Country programme data.

***Starting point established in the Agreement with the Executive Committee.

3. Since 2015, the consumption of all HCFCs varied from year to year. Up until 2018, the total HCFC consumption was at about 23 per cent below the allowable levels under the Montreal Protocol and the HPMP Agreement, due to enforcement of the licensing and quota system and implementation of the HPMP activities. In 2018, the HCFC consumption dropped 45 per cent from that of the previous year due to the weak economy in the country, which likely resulted in the sharp decline in HCFC-22 consumption. The increase of HCFC consumption in 2019 was due to the economic recovery of the country which allowed importers, to import the full amount of HCFC in their allocated quotas. While the consumption of pure HCFC-141b remained at about the same levels, the consumption of HCFC-141b contained in imported pre-blended polyols increased because the conversion of the foam enterprises had been delayed due to the lack of HFO-systems in the country. Beginning in 2019, there was a reduction in consumption for HCFC-141b and HCFC-141b contained in imported pre-blended polyols; a trend which is expected to continue as enterprises started conversion activities that year. Small amounts of HCFC-123, HCFC-124, and HCFC-142b are used for servicing some RAC equipment (i.e. chillers and heat pumps) that are still in operation.

¹ As per the letter of 24 February 2020 from the Ministry of Housing, Land Planning, and Environment of Uruguay to UNDP.

Country programme (CP) implementation report

4. The Government of Uruguay reported HCFC sector consumption data under the 2018 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

Verification report

5. The verification report confirmed that the Government of Uruguay is implementing a licensing and quota system for HCFC imports and exports, that the total consumption of HCFCs for 2018 and 2019 was 9.04 and 14.08 ODP tonnes, respectively, and that the country has complied with both the Montreal Protocol reduction schedule and the maximum allowable consumption in its Agreement with the Executive Committee. The verification concluded that Uruguay's licensing system is fully operational and working effectively and that there are no issues associated with reporting and recording of imports and exports.

Progress report on the implementation of the second tranche of stage II of the HPMP

Legal framework

6. The Government of Uruguay established a regulatory framework to control ODS consumption, including imports and exports of HCFCs in 2006; a quota system has been implemented since 2013; and a ban on the import of split-system air-conditioning equipment that use HCFC-22 has been in place since 1 January 2017. The electronic licensing system in place allows customs authorities to access information related to HCFCs in real time and facilitates the collection of data and statistical records. In 2018, the tariff codes of all controlled substances under the Protocol were updated to improve their control. The national ozone unit (NOU) is part of a committee that reviews fiscal incentives for new projects, and a policy has been implemented to discourage investment projects that use HCFCs by providing fiscal incentive (e.g., import tariff reductions or loans with preferential rates) for projects that introduce HCFC-free, low-global warming potential (GWP), and energy efficient technologies.

7. Four training sessions on the Montreal Protocol, existing control measures for imports, exports and the transit of ODS and the control of illegal trade were conducted. Twenty-five customs officers and brokers participated in each workshop (100 in total).

8. The Government of Uruguay ratified the Kigali Amendment in September 2018.

Polyurethane (PU) foam manufacturing sector

9. Stage II of the HPMP included a complete phase-out of HCFC-141b contained in imported pre-blended polyols (i.e., 5.33 ODP tonnes, representing the starting point eligible for funding) used in 21 small- and medium-sized enterprises (SMEs) manufacturing PU foam applications. The technology selected is based on HFO-formulations.

10. UNDP reported that one enterprise (James) has converted to cyclopentane with an associated phase-out of 1.02 ODP tonnes (9.3 mt) of HCFC-141b; the enterprise provided funding outside the Multilateral Fund to cover the higher capital cost associated with the conversion to cyclopentane. However, the other SMEs have not been able to convert because local suppliers do not offer HFO-based systems, and the small size of the market for such alternatives. A technical expert has been hired to prepare a testing protocol to promote the adoption of HFO-based PU systems by ensuring that the HFO-blown foams comply with all the technical requirements of these SMEs, and to provide information to interested local systems suppliers in supplying these systems. It is expected that conversion of the foam enterprises will be completed by June 2021, and that HFO-systems would be available in the local market.

Refrigeration servicing sector

11. The following activities were implemented:

- (a) A total of 100 refrigeration and air-conditioning (RAC) technicians received training in three, two-week long training workshops on good refrigeration practices and alternative technologies; and an additional 158 RAC technicians were trained on low-GWP alternatives to HCFC;
- (b) One train-the-trainer seminar was conducted with the participation of 10 trainers from technical institutes, universities and the “Laboratorio Tecnológico del Uruguay” (LATU);
- (c) Meetings were conducted with the refrigeration maintenance staff of supermarkets to show technicians through practical exercises the positive effects of the good refrigeration practices in their daily work;
- (d) Two specialized workshops were held on the use of ammonia, with the participation of 16 trainers, one engineer and decision-makers; and technical support was provided to one ice cream producer previously using HCFC-22 to adopt ammonia as a refrigerant in one of its storage and distribution centers;
- (e) A total of 10 meetings were held with the Ministry of Economy and Finance and the Bank of the Republic to evaluate RAC projects that promote low-GWP and high energy-efficiency alternatives in public procurement; and
- (f) Public awareness was raised through the distribution of technical sheets and good refrigeration practice procedures to RAC technicians and service companies; the website and Facebook page of the Ministry of Housing, Land Planning, and Environment were updated with technical information to promote the use of alternatives to HCFCs and other phase-out activities conducted by the HPMP; and four documents with procedures and criteria for the sustainable public purchase of AC equipment were prepared.

Project implementation and monitoring unit (PMU)

12. Implementation of the HPMP is coordinated by the NOU, which is responsible for the identification, implementation, monitoring and evaluation of all activities. It works closely with numerous partners including the National Customs Directorate on HCFC control measures and legal framework. Out of the US \$50,200 budgeted for the PMU in the second tranche, US \$12,504 was spent so far (i.e., US \$7,504 for staff and consultants and US \$5,000 for verification costs and other operational costs) leaving a balance of US \$37,696 to be used in the period 2020-2021.

Level of fund disbursement

13. As of February 2020, of the US \$993,889 approved so far, US \$459,039 had been disbursed as shown in Table 2. The balance of US \$534,850 will be disbursed in 2020.

Table 2. Financial report of stage II of the HPMP for Uruguay (US \$)

Tranche	Approved	Disbursed	Disbursement rate (%)
First	314,000	308,467	98
Second	679,889	150,572	22
Total	993,889	459,039	46

Implementation plan for the third and final tranche of stage II of the HPMP

14. The following activities will be implemented until December 2021:
- (a) Strengthening of the legal and institutional framework to phase out HCFCs including a review of regulations regarding HCFC-based equipment and of compliance measures; two training workshops for 12 customs officers to strengthen the capabilities of the Customs National Direction to monitor ODS imports and control the illegal trade of ODS, and one visit to customs offices at the main border crossing to check how imports are monitored (US \$11,550);
 - (b) Technical assistance to the RAC servicing sector through two training workshops in good refrigeration practice for 60 technicians; introduction of the use of tools (e.g., leak detectors, vacuum pumps, and brazing tools) to reduce refrigerant losses; and continued dissemination of updated training materials to technicians (US \$41,250);
 - (c) Two specialized workshops on the use of CO₂ and ammonia as a refrigerant in commercial and/or industrial applications, and the use of R-290 and HFC-32 in residential AC equipment; two field visits in order to identify potential projects that may use low-GWP alternatives and to selected service shops to monitor and promote alternatives and good refrigeration practices among technicians; implementation of a pilot project to demonstrate the use of CO₂-based systems for cold rooms in the supermarket and the food industry, and finalizing criteria and procedures for sustainable public procurement of non-ODS, low-GWP, high energy efficiency technologies; (US \$40,150);
 - (d) Awareness raising activities to promote the phase-out of HCFCs and good refrigeration practices in the RAC servicing sector and for the general public (US \$3,850); and
 - (e) PMU, for project implementation and monitoring, preparation of progress reports, and follow up meetings with stakeholders (UNDP) (US \$14,468) (and remaining balance from previous tranche of US \$37,696) for consultants and personnel (US \$45,164), workshops and meetings (US \$2,000), and other costs including verification and operational costs (US \$5,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Progress report on the implementation of the second tranche of the HPMP

Legal framework

15. The Government of Uruguay has already issued HCFC import quotas for 2020 at 12.32 ODP tonnes, which is 2.84 ODP tonnes lower than the Montreal Protocol control targets.

PU foam manufacturing sector

16. UNDP explained that some progress has been made on the issue related to local availability of HFO to support the conversion of the SMEs; each of the enterprises were visited to determine their specific requirements; and technical discussions were held with possible PU systems suppliers who could provide HFO-systems on a limited basis depending on the demand. Once the availability of HFO in local markets is resolved, technical assistance will be provided to the SMEs to introduce the HFO-based systems.

17. UNDP reported that the conversion of all SMEs will be completed by June 2021. However, the situation brought about by the COVID-19 pandemic might delay the expected completion date. UNDP further indicated that the proposed ban on the import of HCFC-141b will be issued upon completion of the project, in a phased manner, whereby pure HCFC-141b would be banned by 1 January 2021 as originally planned, and that HCFC-141b contained in imported pre-blended polyols by 1 January 2022.

Refrigeration servicing sector

18. With regard to the activity to promote low-GWP, high energy efficient refrigerants in the RAC sector, UNDP clarified that the results of the two specialized workshops showed interest among some participants in the use of these new technologies while others expressed concern for the availability of equipment and spare parts in the country. UNDP explained that the Government considers it important to proceed with identifying beneficiaries during the implementation of the third tranche and to explore, within the limits of available funding, the use of trans-critical CO₂ in supermarkets following the successful implementation in neighbouring countries. In noting the Secretariat's observation on the need for this project to fulfil the requirements of decision 84/84(d)², UNDP explained that when the project was submitted to the 77th meeting, it was designed as a technical assistance project, rather than an end-user project, with the objective to demonstrate the use of low-GWP, high 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, and not as a pilot end-user incentive project. UNDP also committed to provide a report of the results of this technical assistance as part of the final report of the HPMP.

19. UNDP indicated that stage II of the HPMP will be completed by 31 December 2021, as established in paragraph 14 of the Agreement.

Gender policy implementation³

20. The Secretariat noted that the Government of Uruguay has committed to following the gender mainstreaming policy; for instance, during the implementation of the third tranche, women's participation will be promoted in training activities, capacity-building programmes, and outreach activities and for the distribution of tools and equipment.

Sustainability of the HCFC phase-out

21. The Government of Uruguay has an operational electronic licensing and quota system, and regulations including a ban on the import of HCFC-based split-system air-conditioning equipment, which allows effective and efficient control of HCFCs. The Government is committed to ban the import of HCFC-141b pure and contained in pre-blended polyols once conversion of all PU SMEs is completed. Training activities are on track and include customs capacity-building activities for HCFC phase-out within the Customs Department and training of RAC trainers and technicians in coordination with the refrigeration association. These measures would ensure the sustainability of the HCFC phase-out.

Conclusion

22. The Government of Uruguay continues to be in compliance with the Montreal Protocol and with its Agreement with the Executive Committee. The verification report confirmed the Government's operational licensing and quota system; the HCFC import quota of 12.32 ODP tonnes for 2020 is 19 per cent below the Montreal Protocol target of 15.16 ODP tonnes. ODS-related regulations are in place

² To request bilateral and implementing agencies to submit detailed reports on the results of existing and future end-user projects once they have been completed, to allow the Secretariat to develop fact sheets to inform future projects.

³ Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

including the ban on new HCFC-based split air-conditioners since 1 January 2017. The HPMP is progressing with approximately 260 technicians trained in good refrigeration practise during the second tranche ensuring long-term sustainability of equipment servicing. For the PU foam manufacturing sector, one enterprise has completed its conversion to cyclopentane technology resulting in a phase out of 9.3 mt (1.02 ODP tonnes) of HCFC-141b; the Government expects to complete the conversion at the remaining foam SMEs by June 2021. The planned activities under the third tranche will ensure long-term sustainability of stage II of the HPMP. The fund disbursement of the previous tranche has reached 22 per cent while the overall disbursement has reached 46 per cent.

RECOMMENDATION

23. The Fund Secretariat recommends that the Executive Committee:

- (a) Takes note of the progress report on the implementation of the second tranche of stage II of the HCFC phase-out management plan (HPMP) for Uruguay; and
- (b) Notes that the Government of Uruguay had postponed the ban of HCFC-141b in imported pre-blended polyols from 1 January 2021 to 1 January 2022.

24. The Fund Secretariat further recommends blanket approval of the third and final tranche of stage II of the HPMP for Uruguay, and the corresponding 2020-2021 tranche implementation plan, at the funding level shown in the table below on the understanding that:

- (a) UNDP would continue to report at the 87th meeting on the progress in implementation of the conversion of the foam enterprises and the availability of HFO/HFO-based polyurethane systems and their associated components; and
- (b) The Government of Uruguay and UNDP would submit a progress report on the implementation of the work programme associated with the final tranche and the project completion report to the first meeting of the Executive Committee in 2022:

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage II, third tranche)	111,268	7,789	UNDP