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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: PERU

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, second tranche) UNDP and UNEP

* Due to coronavirus disease (COVID-19)

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
Peru

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNDP (lead), UNEP	80th	67.5% by 2025

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2019	16.26 (ODP tonnes)

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)									Year: 2019
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					16.10				16.10
HCFC-124					0.00				0.00
HCFC-141b					0.00				0.00
HCFC-141b in imported pre-blended polyols		14.63							14.63
HCFC-142b					0.16				0.16

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	26.88	Starting point for sustained aggregate reductions:	54.79
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	18.14	Remaining:	36.65

(V) BUSINESS PLAN		2020	2021	2022	2023	2024	2025	Total
UNDP	ODS phase-out (ODP tonnes)	2.44	0	4.89	0	0	1.22	8.55
	Funding (US $)	249,738	0	499,476	0	0	124,869	874,083
UNEP	ODS phase-out (ODP tonnes)	0.44	0	0.87	0	0	0.22	1.53
	Funding (US $)	47,088	0	94,016	0	0	23,504	164,608

(VI) PROJECT DATA			2017	2018	2019	2020*	2021	2022	2023	2024	2025	Total
Montreal Protocol consumption limits			24.19	24.19	24.19	17.47	17.47	17.47	17.47	17.47	8.74	n/a
Maximum allowable consumption (ODP tonnes)			24.19	24.19	24.19	17.47	17.47	17.47	17.47	17.47	8.74	n/a
Agreed funding (US $)	UNDP	Project costs	350,100	0	233,400	0	0	466,800	0	0	116,700	1,167,000
		Support costs	24,507	0	16,338	0	0	32,676	0	0	8,169	81,690
	UNEP	Project costs	62,400	0	41,600	0	0	83,200	0	0	20,800	208,000
		Support costs	8,112	0	5,408	0	0	10,816	0	0	2,704	27,040
Funds approved by ExCom (US $)		Project costs	412,500	0	0	0	0	0	0	0	0	412,500
		Support costs	32,619	0	0	0	0	0	0	0	0	32,619
Total funds requested for approval at this meeting (US$)		Project costs				275,000	0					275,000
		Support costs				21,746						21,746

*The second tranche was expected to be submitted in 2019.

Secretariat's recommendation	Blanket approval

PROJECT DESCRIPTION

1. On behalf of the Government of Peru, UNDP as the lead implementing agency has submitted a request for funding for the second tranche of stage II of the HCFC phase-out management plan (HPMP), at a total cost of US $296,746, consisting of US $233,400, plus agency support costs of US $16,338 for UNDP, and US $41,600, plus agency support costs of US $5,408 for UNEP.[1] The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2017 to 2019, and the tranche implementation plan for 2020 to 2021.

Report on HCFC consumption

2. The Government of Peru reported a consumption of 16.26 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 Peru (2015-2019 Article 7 data)

HCFC	2015	2016	2017	2018	2019	Baseline
Metric tonnes						
HCFC-22	374.91	369.91	401.40	358.52	292.76	433.29
HCFC-123*	2.98	1.29	0.00	0.00	0.00	0.00
HCFC-124	0.28	0.27	0.20	0.34	0.00	2.77
HCFC-141b	17.62	13.13	0.00	0.00	0.00	16.25
HCFC-142b	3.00	6.03	3.74	1.78	2.41	18.15
Total (mt)	**398.78**	**390.63**	**405.34**	**360.64**	**295.17**	**470.46**
HCFC-141b in imported pre-blended polyols**	295.58	217.67	381.25	266.22	132.96	n.a.
ODP tonnes						
HCFC-22	20.62	20.35	22.08	19.72	16.10	23.85
HCFC-123*	0.06	0.03	0.00	0.00	0.00	0.00
HCFC-124	0.01	0.01	0.00	0.01	0.00	0.06
HCFC-141b	1.94	1.44	0.00	0.00	0.00	1.79
HCFC-142b	0.19	0.39	0.24	0.12	0.16	1.18
Total (ODP tonnes)	**22.82**	**22.21**	**22.32**	**19.84**	**16.26**	**26.88**
HCFC-141b in imported pre-blended polyols**	32.51	23.94	41.94	29.28	14.63	27.91***

*HCFC-123 was not consumed before 2015 and, therefore, is not included in the HCFC baseline or in the starting point for aggregated reductions of HCFC consumption.
**Country programme implementation reports.
*** Starting point established in the Agreement with the Executive Committee.

3. HCFC consumption in Peru has slowly decreased during the last five years, due to the implementation of the activities under the HPMP, including the application of the import/export licensing and quota systems, a gradual transition towards alternative technologies in the refrigeration and air-conditioning (RAC) sector, and a ban on imports of HCFC-141b pure used to clean refrigeration circuits, starting on 1 January 2017.

4. The increased consumption of HCFC-22 and pre-blended polyols containing HCFC-141b in 2017 was for rebuilding facilities that had been destroyed by the floods and mudslides that hit several areas of the country. In 2019, the relatively larger reduction of HCFC-22 was due to an increase in the price of the refrigerant compared to its alternatives, while the 50 per cent reduction in HCFC-141b contained in imported pre-blended polyols was due to an increased import of similar systems based on HFC, HFO and cyclopentane blowing agents.

[1] As per the letter of 24 March 2020 from the Ministry of Production of Peru to UNDP.

Country programme (CP) implementation report

5. The Government of Peru reported HCFC sector consumption data under the 2019 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

Verification report

6. The verification report confirmed that the Government is implementing an operational licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2017 to 2019 was correct (as shown in Table 1 above). The verification concluded that mechanisms implemented by the institutions involved in the licensing and quota systems allow adequate control of HCFC imports, and that HCFC consumption in Peru has been reduced in a gradual and sustainable way, meeting all reduction targets. The verification report recommends continuing to provide customs training; establishing a criterion for monitoring substances that have been phased out (e.g., CFCs, HCFC-141b) to ensure that these substances do not enter the country in either pure or mixed form; and improving the systematization of the information related to imported pre-blended polyols containing HCFC-141b or any other blowing agent, in order to verify follow-up and usage trends. UNDP confirmed that the Government of Peru was working with UNDP and UNEP to follow the recommendations made by the verification.

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

Legal framework

7. The Ministry of Production has created an electronic link between the National Ozone Unit (NOU) and the Customs department to cross-check information on HCFC imports, and the NOU has updated the information in the informal prior informed consent (iPIC) electronic portal developed by UNEP to facilitate cooperation with the NOUs in neighboring countries.

8. The Government has also established a Project Steering Committee (PSC), comprising representatives from the Ministry of Production, UNDP and the private sector, to oversee the implementation of the HPMP and ensure the achievement of outcomes. The Government has worked in coordination with the institutions involved in the control of ODS (e.g., Customs department and Ministries of Production and Agriculture) to ensure that the established measures on controlled substances under the Protocol are effectively complied with, while applying the regulatory criteria for the control of trade at the national level. The Government has not identified any use or stocks of controlled substances that have already been phased out in the country.

9. In order to strengthen the legal and institutional sectors related to the implementation of the Montreal Protocol, three refrigerant identifiers with refrigerant blend capabilities have been purchased and used by the Customs department, and an international expert was recruited to provide training on HCFC and HFC control,[2] to develop the labor competence certification scheme for RAC technicians, and to prepare a guide for the NOU on international standards and procedures, certification systems, standardization of competencies, and lessons learned from certification schemes implemented in other countries.

10. A consultant has been recruited to help with the development of safety standards and guidelines for the installation and servicing of RAC equipment with flammable refrigerant, and for the implementation of workshops for the main stakeholders involved in the adoption of the standard, including the Technical Committee of the National Standards Bureau.

[2] Joining efforts with the implementation of the Kigali Enabling Activity.

Refrigeration servicing sector

11. The following activities took place under the first tranche of stage II of the HPMP:

(a) Initiation of the procurement process for 35 sets of tool kits[3] for RAC technicians and servicing workshops; preparation of the content of workshops on good refrigeration servicing practices and procedures in the use of low-GWP refrigerants; and training of 175 technicians (17 of whom were women) on the good refrigeration servicing practices and the use of low-GWP refrigerants;

(b) Selection of technical education centres for strengthening formal education for refrigeration technicians; provision of technical assistance to SENATI (the most representative training institute of the country) to update its study syllabus; renewal of the laboratory equipment of SENATI for learning purposes; and dissemination of information on international technical standards on RAC that will be adapted in the country;

(c) Completion of one workshop on refrigerant recovery, recycling and reclaiming (RRR); technical visits to three waste, electrical and electronic equipment (WEEE) recovery plants considered as potential centres for recycling refrigerants; preparation of the list of equipment for five recovery and recycling centres and the criteria to select those centres;

(d) Initiation of preliminary inquiries regarding the development of a potential pilot project to promote the use of RAC equipment based on low-GWP refrigerants in cooling equipment in certain sectors, such as fisheries; and

(e) Implementation of an annual awareness campaign for end-users and decision-makers in Government institutions about responsible consumption of HCFCs and options for the use of low-GWP RAC equipment; and development of awareness material (e.g., posters and brochures) for service workshops, end-users and RAC equipment suppliers.

Project implementation and monitoring unit (PMU)

12. The PMU, established within the Ministry of Production, reports directly to the NOU, with UNDP's oversight and guidance. The PMU is headed by a project manager and is supported by an administrative assistant. Technical support is delivered by national consultants and one international expert in RAC. Expenditures incurred by the PMU amount to US $37,500, and are distributed as follows: project coordinator (US $20,000), project assistant (US $10,500), and verification of HCFC consumption (US $7,000).

Level of fund disbursement

13. As of March 2020, of the US $412,500 approved so far (i.e., US $350,100 for UNDP and US $62,400 for UNEP), US $126,534 (31 per cent) had been disbursed (i.e., US $105,234 for UNDP and US $21,300 for UNEP). The balance of US $285,966 will be disbursed in 2020-2021.

[3] For flammable refrigerants, namely: charging station and vacuum pumps; welding kit; hoses kit with ball valves; leak detectors; manometer; and precision balance with clip for cartridge.

Implementation plan for the second tranche of stage II of the HPMP

14. The following activities will be implemented between June 2020 and December 2021:

(a) *Strengthening the legal and institutional sectors*: training of 70 customs officers involved in import procedures for HCFCs and HCFC-based equipment; monitoring the application of the updated import/export HCFC licensing and quota system; monitoring the application of the enhanced harmonized customs code; awareness campaign on the certification process and start of certification of RAC technicians; continuation of the technical assistance for the adoption of safety standards for the introduction of RAC equipment based on non-ODS and zero/low-GWP refrigerants (including flammable), and reproduction of 500 sets of the guidelines (UNEP) (US $41,600);

(b) *Training in good refrigeration practices and procedures in the use of low-GWP refrigerants*: distribution of equipment and tools (35 sets of tool kits for RAC technicians) and implementation of additional workshops for at least 100 technicians across the country on regular good servicing practices and on the proper management of low-GWP refrigerants when installing and servicing RAC equipment (UNDP) (US $51,584);

(c) *Strengthening of technical institutes:* complete procurement of instruments, equipment and tools[4] required by technical training institutes to provide training to RAC technicians (UNDP) (US $67,333*)*;

(d) *Implementation of recovery and recycling centres:* finalization of procurement of equipment[5] for three recycling centres in the capital city (Lima) and two in other locations, and initiation of their operation (UNDP) (US $68,550);

(e) *Technical assistance*: continued preparation of a pilot project to test the installation of a low-GWP-technology-based equipment in a commercial refrigeration end-user during a future tranche (UNDP) (US $5,000);

(f) *Promotion of alternatives for the reduction of HCFC consumption and the use of RAC equipment based on low-GWP refrigerants in key sectors*: design, reproduction and distribution of awareness-raising materials (i.e., banners for training workshops and other events, technical brochures on good practices in RAC, infographic to promote the implementation of recovery and recycling centres) to support the implementation of stage II activities in the refrigeration servicing sector (UNDP) (US $19,933); and

(g) *Project management unit*: monitoring of projects under the HPMP, preparation of annual progress reports, conducting meetings to plan or follow up on the implementation of activities with relevant stakeholders, and verification of HCFC consumption (UNDP) (US $21,000, including US $11,000 for a project coordinator, US $3,000 for a project assistant and US $7,000 for verification).

[4] Including recovery equipment, cylinders, refrigerant identifiers, vacuum pumps, RAC learning modules, manifold sets and hoses, scales, welding kits, leak detectors for all refrigerant gases, filters, and other tools.

[5] Including recovery and recycling equipment, refrigerant identifiers, cylinders, vacuum pumps, leak detectors, and scales.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

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

15. The Secretariat noted that the implementation of the first tranche of stage II of the HPMP was delayed due to the turnover of staff at the General Directorate of Environmental Affairs. UNDP confirmed that the administrative issues have now been resolved and that implementation is ongoing within the timeline established in the Agreement between the Government of Peru and the Executive Committee.

Legal framework

16. The Government of Peru has already issued HCFC import quotas for 2020 in accordance with the Montreal Protocol control targets.

Polyurethane (PU) foam

17. At its 80th meeting, in approving stage II of the HPMP, the Executive Committee allowed the Government of Peru to submit at a future meeting a PU foam sector plan for the phase-out of HCFC-141b contained in imported pre-blended polyols, when cost-effective low-GWP technologies would be commercially available (decision 80/59(b)(iii)). Noting that in 2019 approximately 50 per cent of imported pre-blended polyol systems were based on HFC, HFO and cyclopentane, UNDP reported that the Government was considering not submitting a PU foam project during stage II of the HPMP.

Refrigeration servicing sector

18. In providing information on the way the RRR network will be self-sustained, UNDP explained that the first stage would establish five recovery and recycling centres, while reclaiming capability would only be considered in the future for up to two centres. According to the analysis, the estimated cost of recycling HCFCs at US $2.00/kg is below the market value of virgin HCFC-22 at US $10/kg. The Ministry of Production is currently selecting five centres for recovery and recycling through an open competitive process based on criteria including: at least five years working in the RAC sector; technical capability to operate; sufficient electrical capability for the recovery and recycling equipment to function, availability of 50-70 square meters to locate the equipment; and willingness to sign an agreement with the NOU to develop training. Selected operators cannot have any debt with the Government and are not allowed to pass on certain costs (leasing and utilities) when establishing the price of the recycled HCFC-22.

19. While each centre will receive basic equipment, it will also need to co-finance equipment for cleaning and inspecting cylinders and for packing and storage of contaminated oil; dust vacuum; digital thermometer; hot air blower; and labels to identify recycled HCFC-22.

20. In response to a query on the limited progress in implementation of the end-user pilot project, UNDP reported that the project was only scheduled for implementation in the fourth year of stage II; the objective is to prioritize users with significant consumption of HCFC-22 or large quota allowances. For example, enterprises in the fishing sector had been considered a priority, given their relevance to the economy and potential replicability of the interventions. Preliminary discussions had been held with users, particularly in the commercial sector, which could successfully introduce refrigeration equipment based on low-GWP refrigerants. There had not yet been any discussions about how the Government would take into

consideration decision 84/84[6] and scale up the technology, but all those elements would be considered once the project was developed.

Gender policy implementation[7]

21. The Secretariat noted that during the implementation of the first tranche, the Government of Peru and UNDP trained 17 female technicians, which comprised 11 per cent of the total number of technicians trained during this period. Consistent with the mandate to promote gender equality, the Government of Peru has streamlined gender considerations into their work under the Montreal Protocol. Some of the gender-specific activities performed were: specific training/workshops for women; efforts made toward a greater gender balance among recruited experts/trainers and training/workshop participants; and the introduction of gender considerations into training sessions and training materials (presentation of sex-disaggregated data and visuals of women and men where applicable; presentation of the different effects of chemicals on women and men). In addition, all reporting captures gender-related progress/impact on men and women, and respective challenges both in quantitative and qualitative ways.

Sustainability of the HCFC phase-out

22. The ban on the import of pure HCFC-141b since 1 January 2017 has resulted in the phase-out of the use of this substance for cleaning RAC systems in the refrigeration servicing sector. The Government of Peru has also worked with the Customs department and the technical training institutes to ensure that the information related to the Montreal Protocol is included in their regular training programmes. The Customs department has included in the curriculum of its training institute relevant information on the Montreal Protocol and other environmental agreements. In the refrigeration servicing sector, SENATI has received technical assistance to update its study syllabus, and in addition to the regular programme on good servicing practices already being provided by the technical training institutes, the technicians' association also provides training to members. These measures will help ensure the sustainability of the HCFC phase-out.

Conclusion

23. The HCFC import, licensing and quota system established by the Government of Peru is operational and the country is in compliance with the Montreal Protocol and its Agreement with the Executive Committee. A ban on the import of pure HCFC-141b came into effect on 1 January 2017. The initial delay in implementation of stage II of the HPMP has been resolved. A total of 175 RAC technicians have been trained, 35 sets of tool kits are being procured for distribution to technicians in different provinces, five recovery and recycling centres are currently being selected, three training institutes have been strengthened with technical assistance and will also receive equipment and tools, a certification scheme for technicians is being developed and is expected to start operating in 2020, and the process for the adoption and implementation of safety standards and guidelines for flammable refrigerants has also started. Fund disbursement has reached 31 per cent. In view of the progress achieved, the Secretariat recommends the approval of the second tranche.

RECOMMENDATION

24. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan (HPMP) for

[6] On demonstration and pilot projects directed to end-users to transition to zero- or low-GWP alternatives and/or reduce use of controlled substances.

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

Peru and further recommends blanket approval of the second tranche of stage II of the HPMP, and the corresponding 2020-2021 tranche implementation plan, at the funding levels shown in the table below:

	Project title	**Project funding (US $)**	**Support cost (US $)**	**Implementing agency**
(a)	HCFC phase-out management plan (stage II, second tranche)	233,400	16,338	UNDP
(b)	HCFC phase-out management plan (stage II, second tranche)	41,600	5,408	UNEP