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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eighty-second Meeting  
Montreal, 3-7 December 2018

**PROJECT PROPOSAL: THE DOMINICAN REPUBLIC**

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

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## Dominican Republic (the)

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage II)	UNDP (lead), UNEP	77 <sup>th</sup>	40% by 2020

(II) LATEST ARTICLE 7 DATA (ANNEX C GROUP L)	Year: 2017	44.41 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES)								Year: 2017	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123					0.05				0.05
HCFC-124									
HCFC-141b									
HCFC-141b in imported pre-blended polyol									
HCFC-142b									
HCFC-22					44.36				44.36

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	51.20	Starting point for sustained aggregate reductions:	70.71
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	42.50	Remaining:	28.21

(V) BUSINESS PLAN		2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	1.0			1.0
	Funding (US \$)	113,000			113,000
UNDP	ODS phase-out (ODP tonnes)	6.0	0.0	1.5	7.5
	Funding (US \$)	614,394	0	156,817	771,211

(VI) PROJECT DATA			2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			46.08	46.08	46.08	46.08	33.28	n/a
Maximum allowable consumption (ODP tonnes)			46.08	46.08	46.08	46.08	30.72	n/a
Agreed funding (US \$)	UNDP	Project costs	558,800	0	574,200	0	146,558	1,279,558
		Support costs	39,116	0	40,194	0	10,259	89,569
	UNEP	Project costs	95,000	0	100,000	0	0	195,000
		Support costs	12,350	0	13,000	0	0	25,350
Funds approved by ExCom (US \$)	Project costs		653,800	0	0	0	0	653,800
	Support costs		51,466	0	0	0	0	51,466
Total funds requested for approval at this meeting (US \$)	Project costs		0	0	674,200	0	0	674,200
	Support costs		0	0	53,194	0	0	53,194

<b>Secretariat's recommendation:</b>	Blanket approval
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## PROJECT DESCRIPTION

1. On behalf of the Government of the Dominican Republic, 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 \$727,394, consisting of US \$574,200, plus agency support costs of US \$40,194 for UNDP, and US \$100,000, plus agency support costs of US \$13,000 for UNEP.<sup>1</sup> The submission includes a progress report on the implementation of the first tranche of stage II, the verification report of HCFC consumption for 2016 and 2017, and the tranche implementation plan for 2018 to 2019.

### Status of stage I

2. In line with decisions 76/10 and 81/29, UNDP submitted the project completion report of stage I of the HPMP, which confirms finalization of the stage. The balance will be returned at the 84<sup>th</sup> meeting.

### Report on HCFC consumption

3. The Government of the Dominican Republic reported a consumption of 44.41 ODP tonnes of HCFC in 2017, which is 13 per cent below the HCFC baseline for compliance. The 2013-2017 HCFC consumption is shown in Table 1.

**Table 1. HCFC consumption in the Dominican Republic (2013-2017 Article 7 data)**

HCFC	2013	2014	2015	2016	2017	Baseline
<b>Metric tonnes (mt)</b>						
HCFC-22	600.00	661.08	720.09	759.72	806.55	916.53
HCFC-123	1.14	0.38	0.42	15.00	2.61	9.68
HCFC-141b	16.00	4.83	34.36	1.36	0.00	5.43
<b>Total HCFCs (mt)</b>	<b>617.14</b>	<b>666.29</b>	<b>754.87</b>	<b>776.08</b>	<b>809.16</b>	<b>931.64</b>
HCFC-141b in imported pre-blended polyols*	385.43	199.60	100.00	40.00	0.00	177.36**
<b>ODP tonnes</b>						
HCFC-22	33.00	36.36	39.6	41.78	44.36	50.41
HCFC-123	0.02	0.01	0.01	0.30	0.05	0.19
HCFC-141b	1.76	0.53	3.78	0.15	0.00	0.60
<b>Total HCFCs (ODP tonnes)</b>	<b>34.78</b>	<b>36.90</b>	<b>43.39</b>	<b>42.23</b>	<b>44.41</b>	<b>51.20</b>
HCFC-141b in imported pre-blended polyols*	42.40	21.96	11.00	4.40	0.00	19.51**

\*Country programme (CP) data.

\*\*Average consumption between 2007 and 2009.

4. The increase in consumption of HCFC-22 in 2015 as compared to the previous years was due to increased demand of HCFC-22-based equipment that required an initial charge of refrigerant. From 2016, this increase was due to increased inventories by the importers in anticipation of the implementation of import fees in discussion since 2016. In order to curb the demand for HCFCs, starting 1 January 2019, the Government will impose nine per cent import fees for HCFCs, and increasing by nine per cent every year thereafter. This initiative will also be supported by the ban on the imports of HCFC-based refrigeration and air-conditioning (RAC) equipment which has been enforced since 2017.

5. The consumption of HCFC-141b in bulk and contained in imported pre-blended polyols has steadily decreased since 2015 and is attributed to the conversion of foam enterprises under stage I of the HPMP, and a ban on imports from 1 January 2017.

<sup>1</sup> As per the letter of 29 August 2018 from the Ministry of Environment and Natural Resources of the Dominican Republic to UNDP.

*Country programme (CP) implementation report*

6. The Government of the Dominican Republic reported HCFC sector consumption data under the 2017 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

*Verification report*

7. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFC for 2016 and 2017 were 42.23 and 44.41 ODP tonnes, respectively, which were below its consumption targets for those years under its Agreement with the Executive Committee.

8. The verification report included recommendations to improve data recording and management of information on HCFC imports, and establish a system of redistribution of unused quotas among importers. It also recommended that training be provided to the General Directorate of Customs (DGA) officers particularly in registering imports and import authorizations for more efficient reporting.

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

*Legal framework*

9. The Government of the Dominican Republic has adopted the following resolutions:

- (a) Setting the annual import quota for HCFCs five per cent below the maximum allowable consumption in the Agreement with the Executive Committee starting 2018;
- (b) Imposing import fees for HCFC (nine per cent starting January 2019, increasing by nine per cent every year thereafter);
- (c) Banning the imports and production of RAC equipment (new or used) that use HCFCs as refrigerant from 2017; and
- (d) Banning imports of HCFC-141b, in bulk and/or contained in pre-blended polyols from 1 January 2017.

10. Since 2016, verification procedures in the border inspection posts were strengthened through the use of the online licensing system “Single Window of Foreign Trade.” In addition, the technical regulation for the monitoring of ODS imports now includes the management of HFCs, to support the Kigali Amendment.

11. The training curriculum for Customs officers was updated to include Harmonized System (HS) Customs codes and controls for HCFCs, including the identification of HFCs, HFOs, natural refrigerants, HCFC-141b contained in pre-blended polyols, and identification of RAC equipment and their refrigerants. Eight training workshops on control and monitoring of ODS imports were conducted for 300 officers from DGA in the ports of Haina and Caucedo where majority of ODS trade is handled; another training workshop on ODS control was conducted for 120 enforcement officers from other offices.

*Refrigeration servicing sector*

12. The following activities were implemented:

- (a) Equipment kits (e.g., leak detectors for refrigerant gases, refrigerating recovery gas cooling machine, recovery cylinders, welding equipment) were provided to 14 technical institutes;

- (b) A new memorandum of agreement was signed with the National Institute for Technical and Professional Education (INFOTEP) for the mandatory certification of technicians. Under the Ministry of Environment and Natural Resources, the National Ozone Programme (PRONAOZ), in coordination with relevant government agencies (e.g., INFOTEP and Dominican Institute for Quality) have started the process of establishing an accreditation system for refrigeration technicians by reviewing similar competency-based approaches in the region; four technical standards have been approved to define minimum requirements of certified technicians.
- (c) A total of 463 technicians were trained on the safe use of alternative refrigerants; 100 basic safety kits (e.g., gloves, goggles, robes) were distributed to service technicians; 3,000 “flammable warning” stickers were given to technicians to raise awareness when handling HC-290 refrigerants;
- (d) Equipment bought in stage I of the HPMP (e.g., two 1,000-lbs, nine 100-lbs, and 26 30-lbs recovery cylinders) were distributed to new technicians/workshops to further strengthen the existing recovery and recycling (R&R) network; the terms of reference for the purchase of new equipment under stage II (e.g., five 1,000-lbs storage cylinders and 50 30-lbs recovery cylinders) were prepared and equipment ordered;
- (e) Collaboration with the National Cleaner Production Directorate to promote the technical assistance for end-users in adopting non-ODS, low-global warming potential (GWP) technologies in RAC equipment in hotels was initiated and possible beneficiaries who can provide counterpart funding to implement one pilot project to demonstrate low-GWP alternatives using either CO<sub>2</sub>, HC or NH<sub>3</sub> were identified;
- (f) Discussions were conducted with stakeholders to consider alternatives and requirements for the disposal of unwanted ODS;
- (g) Initiated the development of criteria to identify beneficiaries for the incentive programme to convert small air-conditioning (AC) units to those with low-GWP refrigerants;
- (h) One international seminar on the use of new alternative refrigerants and potential energy savings was organised in September 2018 and technical information materials on alternatives to HCFCs were distributed.

*Project implementation and monitoring unit (PMU)*

13. PRONAOZ is directly responsible for the implementation of Montreal Protocol-related activities. A PMU has been established and serves as coordinating office for the implementation and monitoring of HPMP activities, under the guidance of the Vice Ministry of Environmental Management and the UNDP local office, in coordination with PRONAOZ.

Level of fund disbursement

14. As of September 2018, of the US \$653,800 approved so far (US \$558,800 for UNDP and US \$95,000 for UNEP), US \$501,703 (76.7 per cent) had been disbursed (US \$461,390 for UNDP and US \$40,313 for UNEP). The balance of US \$152,097 will be disbursed in 2019.

Implementation plan for the second tranche of stage II

15. The following activities will be implemented between January and December 2019:

- (a) Training of 200 additional Customs officers and agents on the monitoring of HCFC imports and exports; designing an on-line course for Customs officers in the control of HCFCs and HCFC-based equipment/products; establishing a process for systematic recording and management of documentation related to HCFCs imports and exports (UNEP) (US \$22,600)
- (b) Training on the safe use of flammable refrigerants for 375 technicians, good refrigeration practices for 500 technicians through INFOTEP; one international workshop on good refrigeration practices and alternatives to HCFC refrigerants; provision of equipment and tools (e.g., vacuum pumps, portable and fixed welding equipment, manometers, leak detectors, scales, refrigerant recovery units and refillable cylinders, tools and related supplies) for distribution to the five INFOTEP regional centres and service technicians; (UNDP) (US \$244,750)
- (c) Provision of RAC servicing equipment (e.g., recovery machines, recovery cylinders, charging units, vacuum pumps, manifold gauge sets, weighing tanks) for training including other materials (e.g. technical literature on good practices in refrigeration, refrigeration manuals, filters, pressure-temperature tables) to promote good refrigeration practices for 10 additional technical institutes (UNDP) (US \$101,750)
- (d) Provision of additional equipment (i.e., cylinders and recovery machines) to the existing R&R network, and monitoring the operation of the R&R network (UNDP) (US \$44,000);
- (e) Implementation of certification system for RAC technicians that have been initiated during the first tranche (UNEP) (US \$77,400);
- (f) Adoption and implementation of safety standards/guidelines for flammable refrigerants (UNEP) (funds from previous tranche);
- (g) Implementation of one pilot project in a supermarket to promote the adoption of low-GWP alternatives; and one technical sector-specific workshop on energy savings and reduction of greenhouse gas emissions while eliminating HCFCs from RAC systems to support the pilot project; (UNDP) (US \$108,900);
- (h) Awareness programme on the phase-out of HCFCs through the development and distribution of outreach material (UNDP) (US \$22,000); and
- (i) Project coordination and management (UNDP) (US \$52,800).

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

#### Verification report

16. In response to the Secretariat's query, UNDP has confirmed that the Government of the Dominican Republic will address the issues identified in the verification report during implementation of the second tranche of stage II, and that the relevant implementation plan has taken into consideration the verification report's recommendations.

Report on HCFC consumption

17. The Secretariat expressed concerns on the increase in consumption of HCFC-22. UNDP indicated that the National Ozone Unit (NOU) has been in continuous contact with importers to exchange information on the refrigerant market, and the Government is confident that they have the commitment of the importers to support the activities to control the import of HCFC-22 and that measures such as import fees and a stricter import quota will assist in curbing the growth in HCFC consumption. It was also reported that preliminary information on HCFC-22 imports in 2018 showed a downward trend in consumption.

Progress report on the implementation of the first tranche of the HPMP*Legal framework*

18. The Government of the Dominican Republic has already issued HCFC import quotas for 2018 (43.77 ODP tonnes) which is five per cent lower than the Montreal Protocol control targets (46.08 ODP tonnes).

*Refrigeration servicing sector*

19. On the progress on R&R, UNDP clarified that the set of equipment provided to the centres were still part of the last tranche of stage I. For stage II, the terms of reference for the purchase of additional equipment have been completed, it is expected that these will be delivered in the first half of 2019.

20. The Secretariat noted that the component for technical assistance to end users had originally envisaged two pilot projects (i.e., use of ammonia for the dairy industry, and CO<sub>2</sub> for hotel buildings), and the progress report indicated that work has been done to identify a beneficiary in the supermarket sector, which was not the target for stage II. UNDP explained that during implementation, the dairy industry did not show the same interest as during the preparation of stage II; therefore, the NOU had to look for new end-users. One supermarket chain showed interest in adopting low-GWP technologies for its RAC system in one of its new stores and was willing to provide the required counterpart funding. UNDP emphasised that implementing such pilot projects are challenging particularly because funds under the HPMP are limited; therefore, some adjustments are made during implementation exercising the country's flexibility to do so. UNDP reiterated the Government's commitment to ensure that these end-user pilot projects will showcase only low-GWP technologies as planned.

21. UNDP also provided clarification on the incentive programme to convert small AC units to those with low-GWP refrigerants. UNDP indicated that the programme aims to replacing AC units instead of converting them. The main beneficiaries will be public institutions willing to provide counterpart funding, and would provide information on energy consumption, maintenance cost, and refrigerant consumption of the new units to determine the saving of the replacement. The information collected will be used to design future approaches on equipment replacement in the country.

22. With regard to the work being done to initiate cooperation with partners for ODS waste disposal which was not part of the funded activities under stage II, it was explained that stakeholders from the RAC sector believe that consideration of ODS waste disposal is necessary to support the sustainable phase-out of HCFCs. This prompted initial discussions with a cement plant in the country to look at possibilities for future destruction, without the use of HPMP funds to understand the interest and technical capacity of the local cement company.

Conclusion

23. The consumption of 44.41 ODP tonnes in 2017 was 13 per cent below the HCFC baseline for compliance and about four per cent below the maximum allowable consumption under the Agreement with

the Executive Committee for that year. The Government continues to implement licensing and quota systems for monitoring and controlling HCFCs, has banned imports of HCFC-based equipment since 2017, as well as HCFC-141b in bulk and/or contained in pre-blended polyols. Although there is a constant increase in HCFC-22 consumption, the Government has strengthened the ozone regulation through the adoption of a five per cent reduction of annual import quota for HCFC from the maximum allowable consumption targets, and established import fees for HCFC imports (nine per cent per year starting in 2019). The activities planned under the first tranche have been implemented successfully, training activities were completed, a beneficiary for the pilot demonstration project was identified, and awareness activities were conducted. The disbursement rate of the first tranche is 76.7 per cent. The Government will implement the second tranche focusing on training of service technicians through identified technical institutes, certification system for RAC technicians, providing equipment to technicians and R&R centres, which ensure long term sustainability of the training programme, and strengthening the HCFC import/export licensing system, in accordance with the verification report's recommendations.

## 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 of (HPMP) for the Dominican Republic, and further recommends blanket approval of the second tranche of stage II of the HPMP for the Dominican Republic, and the corresponding 2018-2019 tranche implementation plan, at the funding levels shown in the table below, on the understanding that:

- (a) UNDP would include an update on progress in implementing the recommendations in the verification report submitted to the 82<sup>nd</sup> meeting, including training of Customs officers, improving data recording and management of documentation related to HCFCs imports and exports, as part of the progress report on the implementation of the second tranche of stage II of the HPMP; and
- (b) The pilot projects to promote the adoption of low-global warming potential alternatives and the small equipment incentive programme would enhance the sustainability of the training of servicing technicians, and would be co-financed by participating end users.

	<b>Project title</b>	<b>Project funding (US \$)</b>	<b>Support cost (US \$)</b>	<b>Implementing agency</b>
(a)	HCFC phase-out management plan (stage II, second tranche)	574,200	40,194	UNDP
(b)	HCFC phase-out management plan (stage II, second tranche)	100,000	13,000	UNEP