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EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL Seventy-fourth Meeting Montreal, 18-22 May 2015

#### PROJECT PROPOSAL: 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 I, third tranche)

UNDP and UNEP

# PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS Dominican Republic

(I) PROJECT TITLE AGENCY		MEETING APPROVED	CONTROL MEASURE		
HCFC phase out plan (stage I)	UNDP (lead), UNEP	65 <sup>th</sup>	10% by 2015		

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2014	36.9 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)									Year: 2014
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-141b					0.5				0.5
HCFC-141b in imported pre-blended polyol		22.0							22.0
HCFC-22					36.4				36.4

(IV) CONSUMPTION DATA (ODP tonnes)							
2009 - 2010 baseline: 51.2 Starting point for sustained aggregate reductions: 70.71							
	CONSUME	TION ELIGIBLE FOR FUNDING (ODP tonnes)					
Already approved:	27.14	Remaining:	43.57				

(V) BUSINESS P	LAN	2015	Total
UNDP	ODS phase-out (ODP tonnes)	2.9	2.9
	Funding (US \$)	182,750	182,750

(VI) PROJECT DATA	2010	2011	2012	2013	2014	2015	Total		
Montreal Protocol consumption limits			n/a	n/a	n/a	51.2	51.2	46.08	n/a
Maximum allowable consur	Maximum allowable consumption (ODP tonnes)			n/a	n/a	51.2	51.2	46.08	n/a
Agreed funding (US \$)	UNDP	Project costs	332,775	680,000	0	463,450	0	170,000	1,646,225
		Support costs	24,958	51,000	0	34,759	0	12,750	123,467
	UNEP	Project costs	0	25,000	0	25,000	0	0	50,000
		Support costs	0	3,250	0	3,250	0	0	6,500
Funds approved by ExCom	(US \$)	Project costs	332,775*	705,000	0	488,450	0	0	1,526,225
		Support costs	24,958	54,250	0	38,009	0	0	117,217
Total funds requested for approval at this		Project costs	0	0	0	0	0	170,000	170,000
meeting (US \$)		Support costs	0	0	0	0	0	12,750	12,750

<sup>\*</sup>Approved at the 61st meeting for FARCO and subsumed into the Agreement

Secretariat's recommendation:	For individual consideration
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#### PROJECT DESCRIPTION

1. On behalf of the Government of Dominican Republic, UNDP as the lead implementing agency, has submitted to the 74<sup>th</sup> meeting a request for funding for the third and final tranche of stage I of the HCFC phase-out management plan (HPMP), at the amount of US \$170,000, plus agency support costs of US \$12,750 for UNDP only. The submission includes a progress report on the implementation of the second tranche and the tranche implementation plan for 2015 to 2016.

# Report on HCFC consumption

### HCFC consumption

2. The Government of Dominican Republic reported a consumption of 58.86 ODP tonnes of HCFC in 2014. The 2010-2014 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Dominican Republic (2010-2014 Article 7 data)

HCFC	2010	2011	2012	2013	2014	Baseline
Metric tonnes						
HCFC-22	978.85	890.60	720.20	600.00	661.08	916.55
HCFC-123	4.00	0.23	0.00	1.14	0.50	9.70
HCFC-141b	0.00	10.20	11.47	16.00	4.82	5.45
Total HCFCs (mt)	982.85	901.03	731.67	617.14	666.40	931.70
HCFC-141b in imported pre-blended polyols	227.00	250.00	280.00	401.43	199.60	177.36*
ODP tonnes						
HCFC-22	53.8	48.98	39.61	33.00	36.36	50.41
HCFC-123	0.1	0.00	0.00	0.02	0.01	0.19
HCFC-141b	0.0	1.12	1.26	1.76	0.53	0.60
Total HCFCs (ODP tonnes)	53.9	50.10	40.87	34.78	36.90	51.20
HCFC-141b in imported pre-blended polyols	25.0	27.50	30.80	44.16	21.96	19.51*

<sup>\*</sup>Average consumption 2007-2009

3. The 2014 HCFC consumption (36.9 ODP tonnes) reported under Article 7 is 28 per cent lower than its baseline consumption (51.20 ODP tonnes), and 20 per cent below the allowable consumption in 2015 (46.08 ODP tonnes). The consumption of HCFC-141b contained in imported pre-blended polyols significantly decreased in 2014 due to the successful completion of conversion projects in the foam sector.

Country programme (CP) implementation report

4. The Government of Dominican Republic reported 2014 sector HCFC consumption data under CP implementation which is consistent with the data reported under Article 7.

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

# Legal framework

- 5. The HCFC import licensing and quota system has been operational since 2013. In 2014 and 2015, the Government granted annual HCFC import licenses to 23 importers.
- 6. The Government continued to enforce the ODS rules and regulations that have been established since 2012, with regard to HCFCs. A policy to ban the import of HCFC-141b contained in imported pre-blended polyols will be in effect from 1 January 2016, and a draft resolution to ban the use of HCFC-141b for flushing in the refrigeration servicing sector has been prepared, and is expected to be completed by June 2015.

7. Seventeen training courses on monitoring imports of ODS and management of refrigerant gases were conducted in 2013 and 2014, resulting in 300 customs and enforcement officers trained. The training included the provisions for equipment and training materials.

# Manufacturing sector

- 8. The stand-alone project in Fábrica de Refrigeradores Comerciales (FARCO), to convert HCFC-141b foam manufacturing to cyclopentane, was completed in December 2013, achieving the phase-out of 34 mt (3.74 ODP tonnes) of HCFC-141b contained in imported pre-blended polyols.
- 9. With regard to the 13 other foam enterprises aiming to completely phase-out HCFC-141b contained in imported polyol systems, one (Metalgas) completed the conversion of the polyurethane (PU) foam insulation to allow the use of methyl formate (MF) at the end of 2014. This resulted in the phase-out of 9 mt (0.99 ODP tonnes) of HCFC-141b.
- 10. Agreements have been signed with the remaining 12 foam enterprises for conversion to low-GWP alternatives. For enterprises manufacturing panel doors and cold rooms, one (Paredomi) has completed its conversion using HFC-245fa as a blowing agent (due to non-availability of MF), with an associated phase-out of 11 mt (1.21 ODP tonnes) of HCFC-141b. Further, two enterprises (Ever Doors and Ever Last Doors) have purchased and installed equipment to use cyclopentane technology that will result in the phase-out of 98 mt (10.78 ODP tonnes) of HCFC-141b once the conversions are completed in June 2015. The other enterprises have completed their tests and trials with MF and are technically ready to convert; however are facing difficulties in getting a supply of MF-based systems for their conversion. One enterprise (Aislantes) is using HFC-245fa in the meantime, while another (Southern Solutions) is using water-based technology.
- 11. The total phase-out associated with these 13 enterprises is 178 mt (19.58 ODP tonnes). All remaining conversions are expected to be completed by the end of 2015.

#### Refrigeration servicing sector

- 12. In collaboration with the Dominican Association of Refrigeration Technicians (ADOMTRA), the national ozone unit (NOU) organised 54 training workshops on good practices in refrigeration, with a total of 1,140 technicians trained. Actions led by a technical certification committee for the refrigeration sector, to finalize the technician certification/accreditation process are making progress. Once the recommendations of the committee are accepted, a draft Presidential decree for technician certification will be approved, leading to an initial accreditation of 3,600 technicians who were trained during the CFC phase-out programme.
- 13. An additional 300 technicians participated in 20 short courses led by ADOMTRA on recovery and recycling, and the safe use and management of hydrocarbon (HC) refrigerants. A technical school of refrigeration was also established and equipped within ADOMTRA's facility to ensure the continuous and sustainable training of technicians. This school also functions as a refrigerant recovery and recycling centre for the Dominican Republic.

#### *Project implementation and monitoring unit (PMU)*

- 14. The project implementation and monitoring unit was operational as of 2013 and is managed by the National Ozone Programme (PRONAOZ), which operates under the guidance of the Vice Ministry of Environmental Management and the UNDP local office in coordination with the NOU.
- 15. Public awareness activities were conducted by PRONAOZ in collaboration with ADOMTRA, which included meetings with stakeholders, inter-agency meetings, and development of awareness materials.

#### Level of fund disbursement

16. As of April 2015, of the US \$1,193,450 so far approved, US \$800,637 (67 per cent) had been disbursed (US \$777,869 for UNDP and US \$22,768 for UNEP). The balance of US \$392,813 will be disbursed in 2015.

Table 2. Financial report of stage I of the HPMP for Dominican Republic (US \$)

Agency	First	tranche	Second	tranche	Total approved		
	Approved	Disbursed	Approved Disbursed		Approved	Disbursed	
UNDP	680,000	591,457	463,450	186,412	1,143,450	777,869	
UNEP	25,000	22,768	25,000	1	50,000	22,768	
Total	705,000	614,225	488,450	186,412	1,193,450	800,637	
Disbursement rate (%)		87		38		67	

#### <u>Implementation plan for the third tranche of the HPMP</u>

- 17. During the third funding tranche of the HPMP, the following activities will be implemented:
  - (a) Training and technician certification programme and 13 regional trainings on good practices and refrigeration for 260 technicians (US \$45,000);
  - (b) Preparation of guidelines on safety measures for the use of flammable (HC) refrigerants (US \$30,000);
  - (c) Implementation of the recovery, recycling and reclamation programme through the establishment of six recovery centres and assistance for proper use and disposal of contaminated refrigerants (HCFC) (US \$50,000);
  - (d) Awareness raising activities (US \$20,000); and
  - (e) Project monitoring unit (US \$25,000).

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

## **COMMENTS**

#### Report on HCFC consumption

18. The consumption of HCFC-22 increased between 2013 and 2014. UNDP explained that this growth was due to the increase in demand for the servicing sector. The Government is cognizant of this and has committed to regularly review the quota system and make adjustments as necessary, to ensure that it will be able to sustain compliance with Montreal Protocol measures.

#### Verification report

19. A verification of the HCFC consumption of the Dominican Republic is required for the year 2014. As of writing of this document, the verification report was not received by the Secretariat. In line with decision 72/19(b), should the verification reports not be ready in time for the first meeting of the year, transfer of any approved funds for tranches to the bilateral and implementing agencies would occur only after the Secretariat receives verification reports confirming that, in the year immediately preceding the tranche request, the country had been in compliance with the Montreal Protocol and the Agreement between its Government and the Executive Committee.

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

# Legal framework

20. The Government has already issued HCFC import quotas of 46.08 ODP tonnes for 2015 in accordance with the Montreal Protocol control targets.

#### Manufacturing sector

- 21. In noting the Secretariat's concern about the use of HFC-245fa for some of the enterprises which have committed to use low-global warming potential (GWP) alternatives in converting their foam manufacturing enterprises, UNDP reported that the main challenge associated with the foam projects has been the limited local supply of MF-based systems adapted to local conditions. One of the converted enterprises (Metalgas) was able to source MF as they themselves imported a large quantity of these systems for their use. Consumption in the other enterprises is quite small, making them reliant on availability of polyol systems from local distributors. The use of HFC-245fa is considered a temporary measure until supplies of the other low-GWP alternatives are available. Enterprises are obliged to do this at their own expense since the ban on HCFC-141b polyols takes effect by January 2016, and they would like to complete their conversions by the end of 2015 in order to meet compliance with the Government regulations. UNDP also mentioned that while the Presidential decree banning the import of HCFC-141b is in force at the beginning of 2016, the NOU has not issued quotas for this substance for 2015. Therefore, enterprises may need to use stocks imported in the previous year, or convert using the available alternative technology (HFC-245fa).
- 22. UNDP will continue its discussions with systems houses in Mexico and the United States of America to see whether supplies of MF systems may be made available in Dominican Republic as soon as possible.
- 23. Furthermore, UNDP advised that the equipment in these enterprises was retrofitted to handle MF; drums of MF were purchased to undertake the trials and experts were engaged to complete trials and testing for these enterprises.
- 24. While the enterprises are ready and willing to transit to this low-GWP alternative, local availability remains a challenge. It was also observed that some system houses which engage in the distribution of polyol systems in the country are selling only HFC-systems, a situation which UNDP has no control over.
- 25. In exploring options on how to resolve this issue, the Secretariat suggested the possibility of setting an end date for the temporary use of HFC-245fa, and emphasized the need to regularly report to the Executive Committee on the status of these enterprises until the time they have completely moved their production to low-GWP technology.

#### Refrigeration servicing sector

- 26. With regard to the long-term sustainability of the training programme for technicians, the School of Technical Training, ADOMTRA, will continue to train technicians on good servicing practices, and will share information on new developments in technology after the funded training under the HPMP is completed. ADOMTRA will also offer most of these courses for free, or with a very minimal fee. Maintenance of the equipment provided to the training school will become the responsibility of the school.
- 27. The Secretariat also noted that the technician training covers handling of flammable refrigerants. UNDP explained that the inclusion of this topic in the technician training was of high importance because even if the country does not promote retrofitting of equipment to these alternatives, there is interest in looking at their use in the sector. Any activities related to use of flammable refrigerants will, however, be completed when standards of safe handling are in place.

## Conclusion

28. The Secretariat noted that Dominican Republic was in compliance with the Montreal Protocol in 2013 and 2014, and continued, with progress, its activities planned under stage I. Its licensing system is fully in place, and monitoring of its quota system will sustain compliance. The country has phased out 3.74 ODP tonnes of HCFC-141b contained in the imported pre-blended polyols with the completion of the investment project in FARCO. It is expected that the conversion of other enterprises will be completed by the end of 2015 with an additional phase-out of 19.58 ODP tonnes of HCFC-141b. However, there continues to be a concern regarding the temporary use of HFC-245fa in some of the beneficiary enterprises as MF is not available locally. The overall level of disbursement is 67 per cent. Therefore, the conditions for release of the third tranche have been met.

#### RECOMMENDATION

- 29. The Executive Committee may wish to consider:
  - (a) Noting:
    - (i) The progress report on the implementation of the second tranche of stage I of the HCFC phase-out management plan (HPMP) in Dominican Republic;
    - (ii) That some enterprises in the foam sector whose conversions were approved based on low-global warming potential (GWP) alternatives are using HFC-245fa temporarily due to unavailability of low-GWP polyol systems domestically;
  - (b) Requesting UNDP to continue assisting the Government of Dominican Republic to identify systems houses of low-GWP polyol systems (in particular those based on methyl formate), which could supply them to the country;
  - (c) Requesting UNDP to report on the status of the conversion of the enterprises mentioned in sub-paragraph (a)(ii) above, at each meeting and up until these enterprises have introduced low-GWP alternatives, from the 75<sup>th</sup> meeting;
  - (d) Approving the third and final tranche of stage I of the HPMP for Dominican Republic and the corresponding 2015-2016 tranche implementation plan, at the amount of US \$170,000, plus agency support costs of US \$12,750 for UNDP, on the understanding that:
    - (i) If Dominican Republic were to decide to proceed with retrofits and associated servicing to flammable and toxic refrigerants in refrigeration and air-conditioning equipment originally designed for non-flammable substances, it would do so assuming all associated responsibilities and risks and only in accordance with the relevant standards and protocols; and
    - (ii) That the approved funds would not be transferred to UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Dominican Republic was in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.

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