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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-fifth Meeting
Montreal, 16-20 November 2015

PROJECT PROPOSAL: TRINIDAD AND TOBAGO

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

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Trinidad and Tobago

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UNDP (lead)	64 th	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2014	26.55 (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-123					0.0				0.0
HCFC-124					0.1				0.1
HCFC-141b					0.2				0.2
HCFC-142b					0.2				0.2
HCFC-22					26.1				26.1

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	46.1	Starting point for sustained aggregate reductions:	46.1
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	17.9	Remaining:	28.5

(V) BUSINESS PLAN		2015	2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	5.8	0.0	1.8	0.0	0.0	1.1	8.7
	Funding (US \$)	507,220	0	155,875	0	0	94,600	757,695

(VI) PROJECT DATA			2011	2013	2015	2017	2020	Total
Montreal Protocol consumption limits			n/a	46.1	41.6	41.6	30.0	n/a
Maximum allowable consumption (ODP tonnes)			n/a	46.1	39.5	39.5	28.5	n/a
Agreed funding (US\$)	UNDP	Project costs	559,900	198,000	471,833	145,000	88,000	1,462,733
		Support costs	41,993	14,850	35,387	10,875	6,600	109,705
Funds approved by ExCom (US\$)		Project costs	559,900	198,000	0	0	0	757,900
		Support costs	41,993	14,850	0	0	0	56,843
Total funds requested for approval at this meeting (US\$)		Project costs	0	0	471,833	0	0	471,833
		Support costs	0	0	35,387	0	0	35,387

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Trinidad and Tobago, UNDP as the lead implementing agency, has submitted to the 75th meeting a request for funding for the third tranche of stage I of the HCFC phase-out management plan (HPMP), at the amount of US \$471,833, plus agency support costs of US \$35,387. The submission includes a progress report on the implementation of the second tranche, the verification report on HCFC consumption and the tranche implementation plan for 2016 to 2017.

Report on HCFC consumption

HCFC consumption

2. The Government of Trinidad and Tobago reported a consumption of 26.6 ODP tonnes of HCFC in 2014. The 2010-2014 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Trinidad and Tobago (2010-2014 Article 7 data)

HCFC	2010	2011	2012	2013	2014	Baseline
Metric tonnes						
HCFC-22	881.8	598.10	1,509.39	717.46	473.47	782.9
HCFC-123	0.0	0.00	0.00	1.97	1.27	13.5
HCFC-124	43.0	0.00	1.19	0.00	6.37	23.6
HCFC-141b	40.8	0.00	0.00	0.00	1.36	20.5
HCFC-142b	0.0	20.70	83.98	0.00	3.00	0.0
Total (mt)	965.6	618.80	1,594.56	719.43	485.47	833.7
ODP tonnes						
HCFC-22	48.5	32.89	83.02	39.46	26.04	43.0
HCFC-123	0.0	0.00	0.00	0.04	0.03	0.3
HCFC-124	0.9	0.00	0.03	0.00	0.14	0.5
HCFC-141b	4.5	0.00	0.00	0.00	0.15	2.2
HCFC-142b	0.0	1.34	5.46	0.00	0.19	0.0
Total (ODP tonnes)	53.9	34.24	88.50	39.50	26.55	46.1

3. The 2014 HCFC consumption (26.55 ODP tonnes) reported under Article 7 is 42 per cent lower than the baseline consumption (46.1 ODP tonnes), and is 33 per cent lower than the maximum allowable consumption for 2015 (39.5 ODP tonnes). The HCFC import quotas for 2015 amount to 39.27 ODP tonnes.

4. The Secretariat noted that the 2014 consumption of HCFC-22 (26.55 ODP tonnes) dropped by over 30 per cent from its 2013 consumption. UNDP explained that these reductions were due to the strict implementation of the quota system, and the shift in consumption patterns towards ODS-free refrigerants in refrigeration and air-conditioning (RAC) equipment. The use of hydrocarbon (HC) as a refrigerant was widely promoted in the country, but used primarily in domestic RAC equipment. R-290-based air-conditioning equipment is not yet available; the most commonly used alternative for the RAC sector is R-410A. The increased consumption in 2012 was for stockpile in preparation for the first control measure in 2013.

5. In 2014, the consumption of HCFC-141b (which was not reported in previous years) was used only for flushing refrigeration circuit applications and no HCFC-141b was imported for the foam sector.

Verification report

6. 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 HCFCs for 2014 (26.55 ODP tonnes) was consistent with its Agreement with the Executive Committee.

Country programme (CP) implementation report

7. The Government reported HCFC sector consumption data under the 2014 CP implementation report which is consistent with the data reported under Article 7.

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

Legal framework

8. Trinidad and Tobago's Import and Export Control Regulations for the import of ODS, mixtures containing ODS, and ODS-based equipment including HCFCs, was amended in 2013 to include refrigerant blends. The Government has prepared a ban on the import of pre-blended polyols containing HCFC-141b which will be enforced in January 2016. In addition, a compulsory labelling standard for refrigerant containers has been finalized and is pending approval by the Ministry of Environment and Water Resources. UNDP stated that the standards for transport, storage and handling of refrigerants, are progressing through the development of a labelling standard for refrigerated containers. These standards address the use of flammable refrigerants and have also been submitted to the Ministry of Environment and Water Resources for approval.

9. In total 75 customs officers and six staff members of the Bureau of Standards (TTBS) were trained, and three multi-refrigerant identifiers were procured and distributed to customs officers.

Refrigeration servicing sector

10. The national ozone unit (NOU) organized training workshops for 250 technicians on good practices in refrigeration, with emphasis on safe use of HC-refrigerants. Two hundred sets of equipment comprised 170 sets of tools (including HC leak detectors) and 30 recovery and recycling units were purchased and distributed among technicians. With regard to certification of technicians, a legal consultant has been engaged for the review of the national legislative framework that would form the basis for the national technician certification.

Foam sector

11. The approval of stage I of the HPMP included investment projects for the phase-out of 2.6 ODP tonnes (23.3 mt) of HCFC-141b used by five foam enterprises. One enterprise (Vetter Boxes) is reported to have completed the conversion to methyl formate (MF) with 0.9 ODP tonnes (7.8 mt) of HCFC-141b phased-out.

12. The Secretariat noted that of the five enterprises to be converted only one has completed conversion. UNDP explained that the four remaining enterprises are in various stages of implementation; three signed agreements in 2014 while one signed agreements in early 2015. One enterprise (Ice Con) has completed the technical assessment of the production line and the specifications that will facilitate its retrofit to MF. Three enterprises continued to work towards optimization of systems based on their specific products. It is expected that most of the conversion will be done by the end of 2015, and remaining enterprises are expected to be fully converted to MF by the middle of 2016. Currently, enterprises are using stocks imported in previous years (2011).

Project implementation and monitoring unit (PMU)

13. Project implementation and monitoring was done by the NOU which is responsible for interaction with stakeholders and information outreach. Several awareness raising activities were implemented (e.g., publication of 2,000 brochures and leaflets on the Montreal Protocol and alternatives to HCFCs, quota and ban advisories and quarterly information on HC related issues published in the media).

Level of fund disbursement

14. As of September 2015, of the US \$757,900 so far approved, US \$318,354 had been disbursed for UNDP. The balance of US \$439,366 will be disbursed in 2016 (Table 2).

Table 2. Financial report of stage I of the HPMP for Trinidad and Tobago (US \$)

Agency	First tranche		Second tranche		Total approved	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNDP	559,900	257,734	198,000	60,800	757,900	318,534
Disbursement rate (%)	46		31		42	

Implementation plan for the third tranche of the HPMP

15. The third funding tranche of the HPMP will be implemented in 2016 and 2017, and the following activities will be undertaken:

- (a) Developing and implementing a licensing and certification system for refrigeration and air-conditioning (RAC) technicians; standards for safe transportation, handling and storage of refrigerants; mechanisms for disposal of illegally imported of HCFC refrigerants and HCFC-based equipment; and control of sales of equipment using over 5 mt of HCFCs (US \$27,000);
- (b) Completion of conversion in four enterprises in the foam sector (balances from the previous tranches);
- (c) Training and capacity building for 200 RAC technicians on good servicing practices, procurement of an additional 20 recovery and recycling units and service tools; and completion of five pilot retrofits of medium sized HCFC-22-based RAC equipment to low-GWP, non-flammable alternatives (US \$403,833);
- (d) Awareness raising activities including production of 1,000 leaflets on the phase-out of HCFC and its alternatives; three workshops, public advisories, and lectures at schools to disseminate information on the country's obligations under the Montreal Protocol (US \$17,000); and
- (e) Project management, coordination and monitoring (US \$24,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

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

Refrigeration servicing sector

16. The Secretariat queried the focus on the use of HC-refrigerants in the servicing sector activities taking into account the Executive Committee's decisions 72/17¹ and 73/34² on retrofitting activities.

¹ To include in the approval of HPMPs, tranches, projects or activities that proposed the retrofit of HCFC-based refrigeration and air-conditioning equipment to flammable or toxic refrigerants that the Executive Committee notes that, if the country engages in retrofitting HCFC-based refrigeration and air-conditioning equipment to flammable or toxic refrigerants and associated servicing, it does so on the understanding that they assume all associated responsibilities and risks.

UNDP explained that there is a strong push to move towards the use of HC in the RAC sector. The Government has noted the lack of knowledge on the safe handling of these refrigerants; therefore, these topics have been included in the good practices training programme. The Government was fully aware of the decisions of the Executive Committee and reiterated that the training focuses on the servicing of new HC-based equipment and not on retrofitting with HC. UNDP emphasized that all topics on good refrigeration servicing practices, including those for equipment using alternative refrigerants (i.e., R-410A and HFC-134a), are included in the training programme with equal importance. Eleven training centres (technical schools) are being built and equipped through provision of train-the-trainers courses; the capacity of these training centers will support the long term sustainability of the training programmes.

Foam sector

17. In explaining the delays in the conversion of foam enterprises, UNDP indicated that these were due to additional time required for system optimization. Furthermore, conversion of the system house in Mexico (from which the foam systems would be supported) was awaited to have a steady supply of the alternative. With the conversion of the systems house in Mexico completed, the remaining foam enterprises in the country would be converted by mid-2016.

Implementation plan for the third tranche of the HPMP

18. One activity included in the third tranche was pilot retrofits of equipment. In explaining how these activities have considered the Executive Committee's decisions on retrofits³, UNDP mentioned that the Government does not intend to retrofit any equipment using flammable refrigerants. At the end-user level, the alternative refrigerant options being considered are blends (i.e., R-438A, R-427A, R-422A, R-404A and R-407C) that are readily and commercially available. The criteria for specific end-users will be decided based on consultations with the private sector but will focus mainly on mid-size RAC equipment in important sectors (i.e., schools, hospitals, and supermarkets).

19. UNDP also explained that there will be some testing of flammable refrigerants (i.e., HC and HC blends) for use in retrofitting equipment at the laboratory level to evaluate costs, performance and energy efficiency, as well as the risks associated with their use and how it could be reduced to minimize risks to users/consumers. UNDP is also cognizant that no retrofits to flammable refrigerants will be done as part of stage I until the necessary standards are in place.

Conclusion

20. The Secretariat noted that the overall implementation of the second tranche of stage I of the HPMP is proceeding as planned. The country's import licensing and quota system is operational and will enable consumption reductions in line with the Montreal Protocol's phase-out schedule. The conversion of one of the five foam enterprises was completed in 2015 resulting in a phase-out of 7.8 mt (0.86 ODP tonnes) of HCFC-141b; the four remaining enterprises are expected to complete their conversion by mid-2016 allowing the country to meet the overall committed phase-out of 23.3 mt (2.56 ODP tonnes) in this sector. After these enterprises are converted, the Government will enforce the ban on imports of pre-blended polyols containing HCFC-141b by January 2016. The activities in the servicing sector are also progressing and are conducted in close coordination with stakeholders.

² If a country were to decide, after taking into account decision 72/17, to proceed with retrofits that used flammable substances in equipment originally designed for non-flammable substances, it should be done only in accordance with the relevant standards and protocols.

³ Decision 72/17 and 73/34

RECOMMENDATION

21. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the second tranche of stage I of the HCFC phase-out management plan of (HPMP) in Trinidad and Tobago; and recommends blanket approval of the third tranche of stage I of the HPMP for Trinidad and Tobago, and the corresponding 2016-2017 tranche implementation plan, at the funding level shown in the table below, on the understanding that if Trinidad and Tobago 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:

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage I, third tranche)	417,833	35,387	UNDP