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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-first Meeting
Montreal, 18-22 June 2018

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, fourth 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: 2016	20.80 (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-22					11.84				11.84
HCFC-123					0.02				0.02
HCFC-124									
HCFC-141b									
HCFC-141b contained in imported pre-blended polyol					0.39				0.39
HCFC-142b									

(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		2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	1.77	0	1.08	2.85
	Funding (US \$)	155,875	0	94,600	250,475

(VI) PROJECT DATA			2011	2013	2015	2017	2018*	2020	Total
Montreal Protocol consumption limits			n/a	46.1	41.6	41.6	41.6	30.0	n/a
Maximum allowable consumption (ODP tonnes)			n/a	46.1	39.5	39.5	39.5	28.5	n/a
Agreed funding (US \$)	UNDP	Project costs	559,900	198,000	471,833	145,000	0	88,000	1,462,733
		Support costs	41,993	14,850	35,387	10,875	0	6,600	109,705
Funds approved by ExCom (US \$)		Project costs	559,900	198,000	471,833	0	0		1,229,733
		Support costs	41,993	14,850	35,387	0	0		92,230
Total funds requested for approval at this meeting (US \$)		Project costs					145,000		145,000
		Support costs					10,875		10,875

*The fourth tranche should have been submitted in 2017.

Secretariat's recommendation:	Blanket Approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Trinidad and Tobago, UNDP as the designated implementing agency, has submitted a request for funding for the fourth tranche of stage I of the HCFC phase-out management plan (HPMP), at the amount of US \$145,000, plus agency support costs of US \$10,875.¹ The submission includes a progress report on the implementation of the third tranche and the tranche implementation plan for 2018 to 2020.

Report on HCFC consumption

2. The Government of Trinidad and Tobago reported a consumption of 20.8 ODP tonnes of HCFC in 2016 and an estimated consumption of 11.86 ODP tonnes for 2017, which is 55 and 74 per cent below the HCFC baseline for compliance, respectively. The 2012-2017 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Trinidad and Tobago (2012-2017 Article 7 data)

HCFC	2012	2013	2014	2015	2016	2017*	Baseline
Metric tonnes							
HCFC-22	1,509.39	717.46	473.47	229.16	377.10	215.22	782.9
HCFC-123	0.00	1.97	1.27	0.70	2.78	0.87	13.5
HCFC-124	1.19	0.00	6.37				23.6
HCFC-141b	0.00	0.00	1.36				20.5
HCFC-142b	83.98	0.00	3.00	0.40			0.0
Total (mt)	1,594.56	719.43	485.47	230.26	379.88	216.09	833.7
HCFC-141b contained in imported pre-blended polyol						3.57	
ODP tonnes							
HCFC-22	83.02	39.46	26.04	12.60	20.74	11.84	43.0
HCFC-123	0.00	0.04	0.03	0.01	0.06	0.08	0.3
HCFC-124	0.03	0.00	0.14				0.5
HCFC-141b	0.00	0.00	0.15				2.2
HCFC-142b	5.46	0.00	0.19	0.03			0.0
Total (ODP tonnes)	88.50	39.50	26.55	12.64	20.80	11.92	46.1
HCFC-141b contained in imported pre-blended polyol						0.36	

*Country Programme data submitted on 3 May 2018.

3. The country uses HCFC mostly for servicing refrigeration and air-conditioning (RAC) equipment. Since 2012, HCFC consumption has been decreasing due to utilisation of HCFCs stockpiled in 2012, increasing adoption of HCFC-free alternatives that include both HFCs (HFC-134a, R-404A, R-410A) and other low-GWP technologies (R-600a, ammonia), ban on import of HCFC-based equipment in 2015, implementation of HCFC import controls and monitoring, and training and capacity building activities under the HPMP. However, the increase in consumption in 2016 was due to satisfy the demand for that year. Imported pre-blended polyol containing HCFC-141b was consumed in 2017 by one enterprise for building insulation.

Country programme (CP) implementation report

4. The Government of Trinidad and Tobago reported HCFC sector consumption data under 2016 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

¹ As per the letter dated 19 April, 2018 from the Ministry of Planning and Development, Republic of Trinidad and Tobago, to UNDP.

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

Legal framework

5. The 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. From 2015, HCFC-based equipment cannot be imported into the country. Majority of the new air-conditioners being imported recently still use HFC-410A refrigerant; there is very limited use of R-290 as a refrigerant. The alternative technologies that are replacing HCFC-22 in cold rooms and other applications mainly include HFC-134a, R-404A and R-407C. The Government has a climate policy to reduce and avoid the emission of greenhouse gases, which applies to emissions of HCFCs to the extent feasible. The National Ozone Unit (NOU) developed standards for refrigerant cylinders and equipment used in the RAC sector, mainly related to handling, storage and technical specifications in coordination with the Trinidad and Tobago Bureau of Standards (TTBS). The Government has also approved the national guidelines for good refrigeration servicing and maintenance practices to avoid leakage of refrigerants, in March 2018.

Foam sector

6. Three out of the five companies that were supported for phase-out of HCFC-141b in the foam sector completed their conversion and phased out 2.3 ODP tonnes of HCFC-141b; these companies converted to methyl formate, water-based technologies and methyl formate blended with certain other substances including HFOs. Of the remaining two companies, Ice Fab (0.165 ODP tonnes) is undertaking technical evaluation of methyl formate formulations and is expected to complete its project by 2018; Ice Con (0.35 ODP tonnes) is still determining the best possible technical solution for conversion due to changes in the management. These companies are, in the meantime, importing HCFC-141b pre-blended polyol supplied by an Article 5 country.

Refrigeration servicing sector

7. The following activities were implemented:

- (a) Twenty-five enforcement officers were trained on implementation of regulations relating to monitoring and control of HCFCs by Ministry of Planning and Development in collaboration with Air-conditioning and Refrigeration Industry Association (ARIA); training sessions were conducted for Bureau of Standards staff on border controls relating to ODS and ODS-based equipment including awareness on standards for refrigerant cylinders and equipment;
- (b) Three hundred service technicians were trained in 15 training programme on good service practices and use of flammable refrigerants; 88 technicians received professional certification cards which verify their competency to practice in the RAC sector; 20 sets of equipment (recovery and recycling machines, servicing tools, leak detection equipment) were procured and distributed to technicians for recovery and recycling of HCFC refrigerants. Pilot retrofit programme originally planned under this tranche was not implemented due to non-availability of suitable low-GWP options in the local market; funds would be reprogrammed for training on proper handling of low-GWP flammable refrigerants, purchasing additional equipment and tools for service technicians, and outreach activities facilitating the introduction of low-GWP-based new equipment in the country; and
- (c) Awareness raising activities including production of leaflets on the phase-out of HCFC and its alternatives; three workshops, and awareness raising activities on Montreal Protocol implementation were undertaken including information outreach during Ozone Day.

Project implementation and monitoring unit (PMU)

8. The Project Management Unit (PMU), responsible for HPMP project implementation and managed by a project manager supported by a team of two personnel, undertook several activities.

Level of fund disbursement

9. As of April 2018, of the US \$1,229,733 approved so far, US \$878,765 had been disbursed as shown in Table 2. The balance will be disbursed during 2018.

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

Agency	First tranche		Second tranche		Third tranche		Total approved	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNDP	559,900	518,843	198,000	198,000	471,833	161,922	1,229,733	878,765
Disbursement rate (%)	93		100		34		71	

Implementation plan for the fourth tranche of the HPMP

10. The following activities will be implemented between July 2018 and December 2020:

- (a) Training of 300 service technicians on good servicing practices and safe use of alternatives and purchase and distribution of 35 recovery and recycling equipment and tools for service technicians (US \$77,000)
- (b) Finalisation of compulsory training standards for labelling of containers, national guidelines for RAC sector and development of safety measures for handling of flammable alternatives for HCFCs for inclusion in certification programme (US \$27,000);
- (c) Twenty-five awareness workshops/programmes on HPMP implementation, alternative technologies and project activities, including school lectures, public advisories and seminars (US \$17,000);
- (d) Project management, monitoring and evaluation of the implementation of HPMP (US \$24,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION**COMMENTS**Tranche submission delay

11. UNDP clarified that the fourth tranche submission was delayed because of low levels of disbursement due to delays in procurement of some equipment. These issues have been successfully resolved.

Progress report on the implementation of the third tranche of the HPMP*Verification report*

12. As of writing this document, the verification report of HCFC consumption for the years 2015 to 2017 was not received. UNDP notified that the verification report will be submitted by 15 July 2018. In line with decision 72/19(b), funds approved under the fourth tranche will not be transferred to UNDP until

the Secretariat has reviewed the verification report and confirmed that the Government of Trinidad and Tobago is in compliance with the Montreal Protocol and its Agreement with the Executive Committee. UNDP agreed that in case the verification report would not be received at the Secretariat by 15 July 2018, the funds withheld will be returned to the Fund and the tranche request would need to be submitted to a later meeting.

Legal framework

13. The Government of Trinidad and Tobago has issued HCFC import quotas for 2018 at 26.19 ODP tonnes to 11 importers, which is lower than the maximum allowable consumption target.

Foam sector

14. Upon a request for clarification, UNDP indicated that it is providing technical support to the new management of Ice Con to evaluate available low-GWP foam formulations; however, if the enterprise is unable to take a decision by end of 2018, the project would be cancelled.

Refrigeration servicing sector

15. Upon a request for clarification on adoption of HCFC-free alternative technologies, UNDP informed that the Government is conducting awareness activities to ensure that consumers are well informed of the alternative technologies to HCFC-22; the penetration of low-GWP technology is low due to limited availability, lack of trained technicians capable of using flammable refrigerants, and the availability of equipment using high-GWP refrigerants at competitive prices. The pilot retrofit programme was not implemented and these funds were programmed for training on proper handling use of low-GWP flammable refrigerants, purchasing additional equipment and tools for service technicians, and outreach activities facilitating the introduction low-GWP-based new equipment in the country.

16. In respect of the retrofitting activities to hydrocarbon (HC) refrigerants, UNDP reported that the Government is well aware of the relevant decisions of the Executive Committee.² UNDP also advised that penetration of flammable refrigerants is limited mainly because the sector uses HFCs and non-flammable refrigerants. Training on safe handling of flammable refrigerants focuses on flammability issues associated with refrigerant storage, transportation and usage in new refrigeration equipment or equipment designed for using flammable refrigerants. ARIA is closely involved in training on safety issues associated with HCs and in fact, the trainers are attached to the Association.

17. UNDP also mentioned that certification system for RAC technicians is currently being implemented through the NOU in collaboration with the ARIA. Awareness programmes are being undertaken advising customers to request certification credentials from technicians before engaging in services; communication programmes will also be conducted for procurement officers to ensure that technician certification is requested before issuing air-conditioning contracts. Implementation of certification system and safety standards including standards for cylinders, and RAC equipment, and collaboration with ARIA for implementing the training programme for technicians would ensure the introduction of good service practices among technicians and the long-term sustainability of the programme.

Conclusion

18. The Secretariat noted that the country's import licensing and quota system is operational; the current consumption of HCFCs is about 74 per cent below the HCFC baseline. Although the tranche submission was delayed from 2017 to 2018, the issues relating to the delays were resolved. The planned

² Decisions 72/17 and 73/34.

activities for the HPMP were progressing well. The Government is working with UNDP to assist Ice Con in their foam conversion project during 2018. The Government is implementing awareness activities and training programmes for service technicians, and has adopted national guidelines for good refrigeration practices, standards for refrigerant cylinders and equipment and certification of technicians in cooperation with ARIA. Over 71 per cent of the funds approved have been disbursed. The activities planned under the fourth tranche will result in completion of foam sector project, further strengthen the servicing sector through continuation of implementation of training and equipment support for technicians, strengthen licensing system and enforcement of cylinder rules and RAC equipment standards and ensure the long-term sustainability of the HPMP activities.

RECOMMENDATION

19. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the third tranche of stage I of the HCFC phase-out management plan (HPMP) in Trinidad and Tobago, and further recommends blanket approval of the fourth tranche of stage I of the HPMP for Trinidad and Tobago, and the corresponding 2018-2020 tranche implementation plan at the funding level shown in the table below, on the understanding that:

- (a) The funds approved would not be disbursed by the Treasurer to UNDP until the Secretariat has reviewed the verification report for the years 2015 to 2017 that would be submitted no later than 15 July 2018, and confirmed that the Government of Trinidad and Tobago is in compliance with the Montreal Protocol and its Agreement with the Executive Committee; and
- (b) In case the verification report is not submitted in line with sub-paragraph (a) above, the funding approved for the fourth tranche would be returned to the Multilateral Fund (MLF) and the tranche request with the verification report would be resubmitted at a future meeting.

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage I, fourth tranche)	145,000	10,875	UNDP