



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/71/26
2 November 2013

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Seventy-first Meeting
Montreal, 2-6 December 2013

PROJECT PROPOSAL: BAHAMAS (THE)

This document consists of the comments and recommendation of the Fund Secretariat on the following project proposal:

Phase-out

- HCFC phase-out management plan (stage I, second tranche)

UNEP/UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Bahamas (the)

(I) PROJECT TITLE	AGENCY
HCFC phase out plan (Stage I)	UNEP (lead), UNIDO

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2012	2.73 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2012	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC-123									
HCFC-124									
HCFC-141b									
HCFC-142b									
HCFC-22					2.7				2.7

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	4.8	Starting point for sustained aggregate reductions:	4.8
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	1.68	Remaining:	3.13

(V) BUSINESS PLAN		2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNIDO	ODS phase-out (ODP tonnes)		0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3
	Funding (US \$)		11,406	0	0	39,053	0	0	0	0	50,458
UNEP	ODS phase-out (ODP tonnes)		0.3			0.3				0.2	0.8
	Funding (US \$)		55,992			65,738				35,001	156,731

(VI) PROJECT DATA			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			n/a	n/a	4.8	4.8	4.33	4.33	4.33	4.33	4.33	3.13	
Maximum allowable consumption (ODP tonnes)			n/a	n/a	4.8	4.8	4.33	4.33	4.33	4.33	4.33	3.13	
Agreed Funding (US\$)	UNEP	Project costs	18,200		49,550			58,175				30,975	156,900
		Support costs	2,366		6,442			7,563				4,026	20,397
	UNIDO	Project costs	105,128		10,464			35,828					151,420
		Support costs	9,462		942			3,224					13,628
Funds approved by ExCom (US\$)	Project Costs	123,328	0	0	0	0	0	0	0	0	0	0	123,328
	Support Costs	11,828	0	0	0	0	0	0	0	0	0	0	11,828
Total funds requested for approval at this meeting (US\$)	Project Costs	0	0	60,014	0	0	0	0	0	0	0	0	60,014
	Support Costs	0	0	7,384	0	0	0	0	0	0	0	0	7,384

Secretariat's recommendation:	For blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of the Bahamas UNEP, as the lead implementing agency, has submitted to the 71st meeting a request for funding for the second tranche of Stage I of the HCFC phase-out management plan (HPMP)¹ at a total cost of US \$67,398 consisting of US \$49,550 plus agency support costs of US \$6,442 for UNEP and US \$10,464 plus agency support costs of US \$942 for UNIDO. The submission includes a progress report on the implementation of the first tranche of the HPMP and the tranche implementation plan for 2014 to 2016.

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

2. The activities implemented under the first tranche are as follows:
- (a) *Capacity building (Training of customs officers, technicians and trainers):* Ozone-depleting substances (ODS) trade control and prevention of illegal trade were integrated to the customs department curriculum. The Refrigeration Service Engineers Society (RSES) and the Bahamans Technical and Vocational Institute continued to offer certification and specialized refrigeration training to an average of 100 technicians per year. In addition, thirty technicians were trained on good practices in handling HCFCs and HFC-410A and two technicians attended a regional refrigerant alternatives workshop held in Grenada;
 - (b) *Technical assistance (refrigerant identifiers, equipment, tools and spares):* Twenty sets of basic equipment and tools were procured and delivered, ten of which were donated to the vocational institute to assist with the training of technicians;
 - (c) *Awareness programme:* Several articles in newspapers were published, one television spot on HCFC phase-out activities targeting the industry technicians and the general public was forecasted, and a competition targeting primary school students was conducted; and
 - (d) *Project Coordination & Management:* An HPMP coordinator was recruited to provide assistance in the coordination of training courses and the distribution of tools to the vocational institute and service workshops.

Status of funds disbursed

3. As of September 2013, of the US \$123,328 approved for the first tranche, US \$105,955 (86 per cent) had been disbursed. The balance of US \$17,373 (14 per cent) is being disbursed in 2013.

Annual plans for the second tranche of the HPMP

4. The Government of the Bahamas will implement the following activities:
- (a) *Capacity building programme:* Training of 90 refrigeration technicians on good service practices; a pilot project to assess, monitor and retrofit two air-conditioning systems to hydrocarbon technology in the Department of Environmental Health Services;
 - (b) *Technical assistance:* Set-up of a recovery, recycling and reclamation centre and further distribution of tools and equipment to local technicians on the outer islands, based on the criteria developed by the National Ozone Unit (NOU); and

¹ The HPMP for the Bahamas was approved by the Executive Committee at its 65th meeting to reduce HCFC consumption by 35 per cent of the baseline by 1 January 2020.

- (c) *Public awareness activities:* Workshop for relevant stakeholders on the implementation of the Montreal Protocol, and dissemination of information on the HCFC phase-out and the legal structure established to enable the transition to non-HCFC alternatives through newspapers articles, radio and other media.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

HCFC imports licensing and quota system

5. In line with decision 63/17, confirmation has been received from the Government that an enforceable national system of licensing and quotas for HCFC imports is in place and that the system is capable of ensuring compliance with the Montreal Protocol phase-out schedule.

6. The Department of Environmental Health Services, which hosts the NOU, is the agency responsible for the establishment and monitoring of HCFC import quotas. Import quotas are established per substance and distributed based on each importer's classification. The HCFC import quota for 2013 is 4.8 ODP tonnes.

HCFC consumption

7. The HCFC baseline for compliance has been established at 4.8 ODP tonnes, based on the actual consumption reported under Article 7 of the Montreal Protocol for 2009 and 2010 as shown in Table 1. The established baseline corresponds to the value in the Agreement between the Government of the Bahamas and the Executive Committee; therefore no adjustments to the Agreement are required.

Table.1 HCFC consumption in the Bahamas (Article 7)

HCFC	2008	2009	2010	2011	2012	Baseline
Metric tonnes						
HCFC-22	71.70	63.63	111.46	55.50	49.60	87.54
Total (mt)	71.70	63.63	111.46	55.50	49.60	87.54
ODP tonnes						
HCFC-22	3.9	3.5	6.1	3.05	2.73	4.8
Total (ODP tonnes)	3.9	3.5	6.1	3.05	2.73	4.8

(*) Difference of 0.01 ODP tonnes between the official baseline and the maximum allowable consumption of 4.81 ODP tonnes in the Agreement is due to rounding for the use of one decimal in the baseline.

8. The consumption of HCFC-22 shows a decreasing trend for the last two years; the consumption in 2012 was already 43 per cent below the maximum allowed consumption of 3.13 ODP tonnes in 2020. The import of energy efficient HFC-410A-based mini-split systems rather than HCFC-22-based units explains part of this reduction (the cost difference between buying a new HFC-410A based unit and repairing an older HCFC-22 unit is minimal). Furthermore, many technicians and service workshops are advising customers to switch over to new HFC-based equipment which is currently available in the market (the majority of the equipment is imported from the United States of America).

9. The Government of the Bahamas considers that the reductions in HCFC-22 imports are sustainable and may consider further reducing the annual quota or imposing higher duty rates on HCFCs in the future, as done successfully for CFCs in the past.

Technical issues

10. The Secretariat discussed with UNEP about the HPMP priorities given the reductions in HCFC-22 consumption and the increase of HFC-410A mini-splits in the local market. UNEP explained

that the NOU will maintain the HCFC-22 reductions by continuing the programme in good refrigeration practices and by making operational the recovery and recycling system. Priority has been given to include under the training programme on good service practices for handling HFC-410A systems in order to minimize direct emissions, and to distributing recovery equipment and tools sets that can also be operated on these systems. The NOU will begin laying the groundwork for the introduction of hydrocarbon-based (HC) technology in the near future as an alternative to the use of HCFC-22. This initial introduction will focus on the smaller domestic sized units. In addition, the NOU is mandated to enforce that all technicians become certified as stipulated in the Montreal Protocol Act.

11. With regard to the pilot project to retrofit two air-conditioning systems to HC technology, UNEP explained that the project will help collect data on *inter-alia* standards, safety measures, overall system performance and energy consumption. Based on the results, a broader retrofit strategy for Government-owned air-conditioning systems would be developed.

12. The main economic, technical and regulatory challenges associated with retrofits to flammable substances were also discussed. UNEP also explained that importers are seeking to contact distributors with a view of introducing and ensuring availability of HC-based refrigerants to the local market. To introduce flammable refrigerants into the Bahamas, the first priority of the NOU is to ensure that a strong training programme is in place, and that every technician who will handle or service this type of technology is certified.

13. As part of the work being done in monitoring and promoting the introduction of zero-ODP and low-global warming potential technologies, it was suggested to UNEP to collect more information on a sea-water district cooling plan to be implemented in one resort to analyse the potential benefits and to assess the possible reproduction of this plan by other hotels.

Conclusion

14. Certain activities in the servicing sector are being prioritized to react to the rapid reduction of HCFC-22 consumption and entrance of HFC-410A technology in the market, in particular extending the training and refrigerant containment plan to minimize HFC-410A emissions and initiating work to introduce other low-GWP alternatives where possible.

RECOMMENDATION

15. The Fund Secretariat recommends that the Executive Committee takes notes of the progress report on the implementation of the first tranche of stage I of the HCFC phase-out management plan (HPMP) in the Bahamas, and further recommends blanket approval of the second tranche of stage I of the HPMP for the Bahamas, and the corresponding 2014-2016 tranche implementation plan, with associated support costs at the funding level shown in the table below:

	Project Title	Project Funding (US \$)	Support Cost (US \$)	Implementing Agency
(a)	HCFC phase-out management plan (stage I second tranche)	49,550	6,442	UNEP
(b)	HCFC phase-out management plan (stage I second tranche)	10,464	942	UNIDO
