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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eightieth Meeting  
Montreal, 13-17 November 2017

**PROJECT PROPOSAL: BAHAMAS (THE)**

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)

UNEP/UNIDO

**PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS**

**Bahamas (the)**

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UNEP (lead), UNIDO	65 <sup>th</sup>	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2016	3.74 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2016	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					4.13				4.13

(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		2017	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.3	0.2	0.5
	Funding (US \$)	65,738	35,001	100,739
UNIDO	ODS phase-out (ODP tonnes)	0.2		0.2
	Funding (US \$)	39,052		39,052

(VI) PROJECT DATA			2011	2013	2015	2016	2017*	2018	2019	2020	Total
Montreal Protocol consumption limits			n/a	4.81	4.81	4.33	4.33	4.33	4.33	4.33	n/a
Maximum allowable consumption (ODP tonnes)			n/a	4.81	4.81	4.33	4.33	4.33	4.33	4.33	n/a
Agreed funding (US\$)	UNEP	Project costs	18,200	49,550	0	58,175	0	0	0	30,975	156,900
		Support costs	2,366	6,442	0	7,563	0	0	0	4,026	20,397
	UNIDO	Project costs	105,128	10,464	0	35,828	0	0	0	0	151,420
		Support costs	9,462	942	0	3,224	0	0	0	0	13,628
Funds approved by ExCom (US\$)	Project costs		123,328	60,014	0	0	0	0	0	0	183,342
	Support costs		11,828	7,384	0	0	0	0	0	0	19,212
Total funds requested for approval at this meeting (US\$)	Project costs		0	0	0	0	94,003	0	0	0	94,003
	Support costs		0	0	0	0	10,787	0	0	0	10,787

\* The third tranche should have been submitted in 2016

Secretariat's recommendation:	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 a request for funding for the third tranche of stage I of the HCFC phase-out management plan (HPMP), at a total cost of US \$104,790, consisting of US \$58,175, plus agency support costs of US \$7,563 for UNEP, and US \$35,828, plus agency support costs of US \$3,224 for UNIDO.<sup>1</sup> 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 2018 to 2020.

### Report on HCFC consumption

#### *HCFC consumption*

2. The Government of the Bahamas reported a consumption of 3.74 ODP tonnes (68.00 mt) of HCFC in 2016, which was 22 per cent below the baseline for compliance. The 2012-2016 HCFC consumption is shown in Table 1.

**Table 1. HCFC consumption in the Bahamas (2012-2016 Article 7 data)**

HCFC-22	2012	2013	2014	2015	2016	Baseline
Metric tonnes (mt)	49.6	49.45	49.27	64.00	68.00	87.3
ODP tonnes	2.73	2.72	2.71	3.52	3.74	4.8

3. All HCFC consumption in the country is in the refrigeration and air-conditioning sector (RAC). In 2015, HCFC consumption increased by 29.3 per cent over the previous years due to additional imports from new importers, given that the NOU did not issue individual importer/company quotas. Import data did not show a market for blends in the Bahamas. Low prices and continued availability of HCFC-22 remain a challenge in the country's HCFC phase-out efforts. However, HCFC-based equipment is gradually being replaced in the local market by R-410A and other HFCs.

#### *Country programme (CP) implementation report*

4. The Government of the Bahamas initially reported HCFC sector consumption data of 4.13 ODP tonnes under the 2016 CP implementation report, but this was not consistent with the data reported under Article 7 of the Montreal Protocol of 3.74 ODP tonnes. UNEP indicated that the discrepancy was as a result of two additional import application orders one of which was subsequently cancelled, reducing the total ODS imports by 0.39 ODP tonnes (7.09 mt) to 3.74 ODP tonnes. The CP data was updated. To avoid this in future, the Government has closed the new application process and instituted individual company quota allocations.

#### *Verification report*

5. The verification report confirmed that the Government was implementing a licensing and quota system for HCFC imports and exports, and that the total consumption of HCFCs for 2016 was 3.74 ODP tonnes. Although HCFC consumption was lower than the control limits under the Montreal Protocol, HCFC consumption increased between 2014 and 2016.

6. Between 2013 and 2016, permits and licences in imports of HCFCs were issued on first-come first-served basis and no specific quotas were issued to established importers. However, an importer-specific quota allocation system was established from 1 January 2017. The verification report recommended strict quota allocations to registered users only.

<sup>1</sup> As per the letter of 15 September 2017 from the Ministry of Housing and the Environment to the Secretariat.

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

7. HCFCs trade is controlled by the Montreal Protocol (Import/Export Licensing System of Controlled Substances) Regulations (Cap. 216A) and the Customs Management (Amendment) Act of 2013. The Bahamas Customs and Excise Department enforces the regulations and submits compliance data to the National Ozone Unit (NOU).

8. The Bahamas has an enforceable licensing and quota system in place that ensures the country's compliance with the HCFC phase-out schedule. The Department of Environmental Health Services (DEHS) in the Ministry of Environment and Housing establishes and monitors HCFC import quotas per substance and distributes them to registered importers based on their historic market share dating back to the last five years, and on the consumption limits established under the Protocol.

*Refrigeration servicing sector*

9. Implementation of the second tranche was delayed by over two years due to Government restructuring, which also delayed the disbursement of funds. The project to establish a recovery, recycling and reclamation centre, which was planned under the HPMP never got off the ground due to lack of support among stakeholders. However, most planned activities of the second tranche were completed, as described below:

- (a) Eight training sessions were held for 130 technicians on good service practices, including safe handling of refrigerants;
- (b) Equipment and tools, including infra-red thermometers, flaring tools, digital scales, hydrocarbon adapters, refrigerant identifiers, vacuum pumps, and line piercing valves were distributed to the Bahamas Technical and Vocational Institute (BTVI) and the Refrigeration Service Engineers Society (RSES). The distribution of equipment was supported by a two-day workshop for 60 technicians on refrigerant safety and hands-on practice; and
- (c) Information material on the implementation of the Montreal Protocol was disseminated to all registered importers.

*Project implementation and monitoring unit (PMU)*

10. A national coordinator was appointed to implement all HPMP activities. However, in May 2012 the Director of DEHS assumed the coordination functions, and the NOU assumed the role of the PMU, and provided day-to-day implementation oversight and guidance.

Level of fund disbursement

11. As of October 2017, of the US \$183,342 approved so far, US \$148,537 had been disbursed (US \$33,200 for UNEP and US \$115,337 for UNIDO) as shown in Table 2. The balance of US \$34,805 will be disbursed in 2017-2018.

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

Agency	First tranche		Second tranche		Total approved	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNEP	18,200	18,200	49,550	15,000	67,750	33,200
UNIDO	105,128	105,128	10,464	10,209	115,592	115,337
<b>Total</b>	123,328	123,328	60,014	25,209	183,342	148,537
<b>Disbursement rate (%)</b>	100		42		81	

Implementation plan for the third tranche of the HPMP

12. The following activities will be implemented between 2018-2020:
- (a) Train customs officers in the enforcement of the Montreal Protocol Act of 2006 (UNEP) (US \$41,875);
  - (b) Train 60 technicians in the safe handling of of R-410A and alternative refrigerants, and an additional five trainers in the safe handling of alternative refrigerants (balance from the previous tranche);
  - (c) Conduct four training workshops and provide additional servicing equipment and tools to facilitate good RAC servicing practice (UNIDO) (US \$35,828);
  - (d) Organize workshops for technicians, importers and other stakeholders on the demand of refrigerants, information exchange on emerging technologies and best approach to meet compliance with the Montreal Protocol targets; increase awareness and visibility on the implementation of the HPMP, and the benefits of alternative and climate-friendly gases (UNEP) (US \$3,000);
  - (e) Coordinate and monitor all activities related to the HPMP (UNEP) (US \$13,300).

**SECRETARIAT'S COMMENTS AND RECOMMENDATION**

**COMMENTS**

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

*Legal framework*

13. UNEP indicated that individual quota allocations were introduced for existing importers effective 1 January 2017. These allocations are expected to reduce ODS imports into the Bahamas by at least 20 per cent of the Montreal Protocol limits (4.33 ODP tonnes) to 3.47 ODP tonnes (63 mt) in 2017. The NOU will monitor and report on the application of the new system to ensure its effectiveness and compliance.

14. While the licensing and quota system enabled the country to meet its consumption reduction targets to date, the Government is considering extending the system to 2018 to include the most commonly-used refrigerants such as HFCs, HFC-based blends, and hydrocarbons (HC-290 and HC-600A). This would influence the introduction of alternative refrigerants, and reduce the possibility of illegal imports.

15. UNEP also indicated that the Government is considering a ban on HCFC-22-based equipment, increasing the duty on HCFCs, and reducing duties on imports of alternative refrigerants in order to push the local market towards their use. The Government is also considering new activities such as energy efficient labelling of equipment, and additional capacity building of the Customs Department in order to avoid data discrepancies and misclassification.

*Refrigeration servicing sector*

16. The pilot project to assess, monitor and retrofit two air-conditioning systems to hydrocarbon (HC) technology in the DEHS was delayed because a supplier could not be found in the region. Subsequently, R-22a was identified as the alternative refrigerant for import from the United States of America. The Secretariat expressed concern regarding the proposed use of R-22a (a hydrocarbon-based with propriety).

The Secretariat drew UNEP's attention that the United States Environmental Protection Agency (EPA) had decided as of 3 January 2017 to rule as unacceptable the use of R-22a and some flammable refrigerants for retrofits in unitary split AC systems and heat pumps, as well as to the decision on retrofits<sup>2</sup> to flammable and toxic refrigerants originally designed for non-flammable substances. Further to the discussion, UNEP indicated that given the EPA decision on R-22a, a study would be done to explore the best available options, and any activity related to retrofits would only be undertaken on the basis of the recommendations of the study.

17. While the proposed recovery, recycling and reclamation (RRR) centre was not established due to lack of support from stakeholders, UNEP explained that recovery machines and cylinders were purchased for training centres, and 300 technicians were trained in refrigeration management, including in recovery and recycling. More training will be provided in stage II to address recovery and recycling. These measures along with training on leak reduction and prevention would reduce consumption of HCFC-22.

### Conclusion

18. While there were some implementation delays and activities were impacted, the Government made significant progress, including the training certification of 130 technicians (instead of 90 as originally planned); technicians were trained on best practices in recovery and recycling; tools and equipment were distributed to the BTVI and the RSES all of which contribute to the sustainability of training activities. Developments such as the implementation of new measures in issuing quotas, and the activities now planned in the third tranche will all contribute to the country's efforts to meet its HCFC consumption reduction targets under the Montreal Protocol.

### **RECOMMENDATION**

19. 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 (HPMP) in the Bahamas; and further recommends blanket approval of the third tranche of stage I of the HPMP for the Bahamas, and the corresponding 2018-2020 tranche implementation plan, at the funding levels shown in the table below:

	<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 I, third tranche)	58,175	7,563	UNEP
(b)	HCFC phase-out management plan (stage I, third tranche)	35,828	3,224	UNIDO

<sup>2</sup> Decisions 72/17 and 73/34.