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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Seventy-sixth Meeting  
Montreal, 9-13 May 2016

**PROJECT PROPOSAL: CAMBODIA**

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

Phase-out

- HCFC phase-out management plan ( third tranche) UNEP and UNDP

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

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>	<b>MEETING APPROVED</b>	<b>CONTROL MEASURE</b>
HCFC phase out	UNDP, UNEP (lead)	61 <sup>st</sup>	100% by 2035

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2014	11.2 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>							<b>Year: 2014</b>		
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					11.2				11.2

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	15.0	Starting point for sustained aggregate reductions:	15.0
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	15.0	Remaining:	0

<b>(V) BUSINESS PLAN</b>		<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Total</b>
UNDP	ODS phase-out (ODP tonnes)	0.9	0.0	0.0	1.4	2.3
	Funding (US \$)	107,500	0	0	161,250	268,750
UNEP	ODS phase-out (ODP tonnes)	1.4			0.9	2.4
	Funding (US \$)	169,500			113,000	282,500

(VI) PROJECT DATA			2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026-2029	2030	2031	Total	
Montreal Protocol consumption limits			n/a	n/a	n/a	15.0	15.0	13.5	13.5	13.5	13.5	13.5	9.8	9.8	9.8	9.8	9.8	4.9	4.9	0.4	0.4	n/a	
Maximum allowable consumption (ODP tonnes)			n/a	n/a	n/a	15.0	15.0	13.5	13.5	13.5	13.5	13.5	9.8	9.8	9.8	9.8	9.8	4.9	4.9	0.4	0.4	n/a	
Agreed funding (US\$)	UNDP	Project costs	200,000	0	0	200,000	0	0	100,000	0	0	150,000	0	0	0	0	0	0	0	0	0	0	650,000
		Support costs	15,000	0	0	15,000	0	0	7,500	0	0	11,250	0	0	0	0	0	0	0	0	0	0	48,750
	UNEP	Project costs	150,000	0	0	100,000	0	0	150,000	0	0	100,000	0	0	200,000	0	0	200,000	0	0	0	50,000	950,000
		Support costs	19,500	0	0	13,000	0	0	19,500	0	0	13,000	0	0	26,000	0	0	26,000	0	0	0	6,500	123,500
Funds approved by ExCom (US\$)		Project costs	350,000	0	0	300,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	650,000
		Support costs	34,500	0	0	28,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62,500
Total funds requested for approval at this meeting (US\$)		Project costs	0	0	0	0	0	0	250,000	0	0	0	0	0	0	0	0	0	0	0	0	0	250,000
		Support costs	0	0	0	0	0	0	27,000	0	0	0	0	0	0	0	0	0	0	0	0	0	27,000

<b>Secretariat's recommendation:</b>	For blanket approval
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## PROJECT DESCRIPTION

1. On behalf of the Government of Cambodia, UNEP as the lead implementing agency, has submitted to the 76<sup>th</sup> meeting a request for funding for the third tranche of the HCFC phase-out management plan (HPMP), at a total cost of US \$277,000, consisting of US \$150,000, plus agency support costs of US \$19,500 for UNEP, and US \$100,000, plus agency support costs of US \$7,500 for UNDP. The submission includes a progress report on the implementation of the second tranche, and the tranche implementation plan for 2016 to 2018.

### Report on HCFC consumption

#### *HCFC consumption*

2. The Government Cambodia reported a consumption of 11.19 ODP tonnes of HCFC in 2014 and estimated a consumption of 11.68 ODP tonnes for 2015. The 2011-2015 HCFC consumption is shown in Table 1.

**Table 1. HCFC consumption in Cambodia (2011-2014 Article 7 data, 2015 estimated)**

HCFC	2011	2012	2013	2014	2015*	Baseline
<b>Metric tonnes</b>						
HCFC-22	249.21	183.96	172.16	203.01	211.70	388.8
HCFC-123				1.14	2.10	0
<b>Total Metric tonnes</b>	<b>249.21</b>	<b>183.96</b>	<b>172.16</b>	<b>204.15</b>	<b>213.87</b>	<b>388.8</b>
<b>ODP tonnes</b>						
HCFC-22	13.71	10.12	9.47	11.17	11.64	15.0
HCFC-123				0.02	0.04	0
<b>Total ODP tonnes</b>	<b>13.71</b>	<b>10.12</b>	<b>9.47</b>	<b>11.19</b>	<b>11.68</b>	15

\*Estimate.

3. The declining trend of HCFC-22 consumption in 2012 and 2013 was due to the release of the stockpiled HCFC-22 imported during 2009-2011. In 2014 and 2015, the slight increase in consumption of HCFC-22 reflected the actual need in the country as it returned to business-as-usual situation. HCFC-123 was imported for after-sale service of eight existing HCFC-123-based chillers in the country. The Government of Cambodia had already restricted the import of HCFC-based chillers since 2015, therefore it is expected that HCFC-123 consumption would not increase in the future. The HCFC consumption in 2014 and estimated for 2015 is below the Montreal Protocol control measures for the years.

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

4. The Government of Cambodia reported HCFC sector consumption data under the 2014 CP implementation report which is consistent with the data reported under Article 7. The 2015 CP report will be submitted in May 2016.

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

#### *Legal framework*

5. The sub-decree on ODS management and the Ministerial Declaration to effectively implement and enforce the existing licencing system is currently being revised to include consideration of HFC-based equipment, hydrocarbons and other non-ODS refrigerants. The Government is also developing a new Environmental Code, which would cover all ODS and non-ODS refrigerants and

refrigeration and air-conditioning (RAC) equipment. The Environment Code would allow the Government to closely monitor the adoption of alternatives to ODS to replace HCFCs.

6. The Government is also developing standards for the use of flammable refrigerants in the RAC sector, and considering standards for installation of RAC equipment, and product standards to adopt low-global warming potential (GWP) alternative technologies.

7. During the period, 28 trainers were trained and delivered further training to 167 enforcement officers.

*Refrigeration servicing sector*

8. The following activities were undertaken:

- (a) Five additional RAC training workshops where 165 technicians were trained, bringing the total of trained service technicians to 255 under stage I of the HPMP;
- (b) Developed guidelines for skill standards and certificate testing for RAC technicians, which is expected to be finalized by 2016, and identified nine vocational training schools to participate in the technician certification programme;
- (c) Developed a policy with the General Department of Industry, Ministry of Industry and Handicraft for a norm that required all RAC service workshops to have at least one certified technician as a pre-condition for the renewal of their business license, for implementation in 2016.

9. The following were completed under the refrigerant recovery and reuse programme:

- (a) Provision of recovery equipment to eight RAC servicing workshops; and service tools (i.e. recovery units and accessories) to informal/independent RAC technicians;
- (b) Provision of refrigerant reclaim machines to two enterprises, including training on the use of these equipment for 27 technicians from service workshops and potential mini-reclaim centres; so far the reclaim centres established during the previous tranches have recovered around 92.20 kg of HCFC-22, out of which 45.1 kg have been reclaimed; and
- (c) Identification of feasible retrofit options through workshops and meetings with stakeholders.

*Awareness activities*

10. A number of public awareness activities were conducted including workshops for 130 participants, preparation and distribution of 3,000 pamphlets, distribution of materials (i.e. books, CDs) to the stakeholders and RAC servicing workshops in Cambodia.

*Project implementation and monitoring unit (PMU)*

11. The PMU has been established under National Ozone Unit (NOU) and is responsible for planning, implementation and monitoring of all activities under the HPMP.

Level of fund disbursement

12. As of March 2016, of the US \$650,000 so far approved, US \$397,982 had been disbursed (US \$226,209 for UNEP and US \$171,773 for UNDP). The balance of US \$252,018 will be disbursed in 2016 and 2017 (Table 2).

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

Agency	First tranche		Second tranche		Total approved	
	Approved	Disbursed	Approved	Disbursed	Approved	Disbursed
UNEP	150,000	150,000	100,000	76,209	250,000	226,209
UNDP	200,000	127,693	200,000	44,080	400,000	171,773
<b>Total</b>	<b>350,000</b>	<b>277,693</b>	<b>300,000</b>	<b>120,289</b>	<b>650,000</b>	<b>397,982</b>
<b>Disbursement rate (%)</b>	79.3		40.1		61.2	

Implementation plan for the third tranche of the HPMP

13. The following activities will be implemented:

- (a) Policy initiatives including the amendment of regulations governing the licensing and quota system; finalizing the new Environmental Code to include the control of all ODS and non-ODS refrigerants and equipment, and standards for use of flammable refrigerants; restricting sale of refrigerant to only certified technicians, and exploring a possible ban on installation of large HCFC-based equipment (UNEP) (US \$5,000);
- (b) Five training workshops to train 150 customs and enforcement officers; and implementing mandatory labelling requirement of HCFC cylinders (UNEP) (US \$30,000);
- (c) Training of 300 RAC technicians on good practices (UNEP) (US \$55,000);
- (d) Implementing the certification programme for RAC technicians; maintaining a database of trained and certified RAC technicians for information dissemination; and encouraging technician certification and promoting the availability of certified technicians with end-users (UNEP) (US \$8,000);
- (e) Procurement of recovery and reclamation equipment and servicing tools; conducting four training workshops to encourage recovery activities as well as promote equipment use among 350 technicians; (UNDP) (US \$50,000);
- (f) Providing incentives to support equipment replacement for selected end-users and to facilitate the adoption of the integrated approach for this scheme through two workshops and four meetings; and identifying beneficiaries for the incentive programme (UNDP) (US \$50,000);
- (g) Implementing public awareness; and information, education and communication activities (UNEP) (US \$25,000); and
- (h) Planning, implementing and monitoring activities under the HPMP (UNEP) (US \$27,000).

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

#### *Verification report*

14. By the time of issuance of this document, the verification report of HCFC consumption for the years 2013, 2014 and 2015 was still underway. Therefore, in line with decision 72/19, funds approved under the third tranche will not be transferred to the implementing agencies until the Secretariat has reviewed the verification report and confirmed that the Government of Cambodia is in compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee.

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

#### *Legal framework*

15. The Government of Cambodia has already issued HCFC import quotas for 2016 at 220 mt (12.1 ODP tonnes) of HCFC-22.

#### *Refrigeration servicing sector*

16. With regard to the strategy to ensure the sustainability of the training programme for customs officers and service technicians, UNEP emphasized that the training curriculum of the General Department of Customs and Excise already includes regulations for ODS, licensing system, and issues related to the Montreal Protocol. For RAC service technicians, the NOU continues to work closely with vocational training schools in organizing and conducting workshops for technicians that have not been trained.

17. Presently, Cambodia has limited retrofit technology options for residential and commercial air-conditioning equipment. Therefore the implementation of the retrofit incentive programme is postponed until non-HCFC, low-GWP and climate-friendly options become commercially available in the domestic market. UNDP also explained that with regard to the incentive programme for end-users, the guidelines, scope and eligibility criteria of replacing HCFC-22-based RAC equipment will be discussed with the owners and stakeholders and finalized after consultation with the Government. UNDP is closely consulting technology suppliers in the region.

#### Conclusion

18. The Secretariat noted that Cambodia continues to be in compliance with HCFC consumption targets, has an effective licensing and quota system, and continues to progress in the implementation of the activities approved under the HPMP. Policy initiatives have been initiated including controls on HFC-based equipment and national standards for the use of flammable refrigerants. Initiatives such as the requirement of selling refrigerant only to certified technicians, establishment of the HCFC reclaim centres and implementation of certification programme will also support the strategy for the servicing sector.

### RECOMMENDATION

19. The Fund Secretariat recommends that the Executive Committee takes note of the progress report on the implementation of the second tranche of the HCFC phase-out management plan (HPMP) for Cambodia; and further recommends blanket approval of the third tranche of the HPMP for Cambodia and the corresponding 2016-2018 tranche implementation plan at the funding levels shown in the table below, on the understanding that the approved funds would not be transferred to UNEP and UNDP until the Secretariat had reviewed the verification report and confirmed that the Government of Cambodia was in

compliance with the Montreal Protocol and the Agreement between the Government and the Executive Committee:

	<b>Project title</b>	<b>Project funding (US \$)</b>	<b>Support cost (US \$)</b>	<b>Implementing agency</b>
(a)	HCFC phase-out management plan	150,000	19,500	UNEP
(b)	HCFC phase-out management plan	250,000	27,000	UNDP

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