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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Sixty-first Meeting  
Montreal, 5-9 July 2010

**PROJECT PROPOSAL: CAMBODIA**

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

Phase-out

- HCFC phase-out management plan (first tranche)

UNEP/UNDP

**PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS****CAMBODIA****PROJECT TITLE:** HCFC phase-out management plan (first tranche)**BILATERAL/IMPLEMENTING AGENCY:** UNEP and UNDP**NATIONAL CO-ORDINATING AGENCY:** National Ozone Unit**LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT****A. ARTICLE-7 DATA 2009 AS OF JUNE 2010**

Annex C, Group I:	17.1
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**B: COUNTRY PROGRAMME SECTORAL DATA 2009 AS OF JUNE 2010**

Substance	Consumption by sector (ODP tonnes)						Total
	Aerosol	Foam	Ref. manu.	Ref. serv.	Solvent	Other	
HCFC-22	0	0	0	17.1	0	0	17.1
HCFC-141b	0	0	0	0	0	0	0
HCFC-142b	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0

**CONSUMPTION DATA (ODP tonnes)**

2009-2010 baseline:	To be determined	Starting point for sustained aggregate reductions:	17.1
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**CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)**

Already approved:	0	Remaining:	
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**CURRENT YEAR BUSINESS PLAN:**

Total funding (US \$):	1,800,000	Total phase-out (ODP tonnes):	17.1
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**THE TARGETS AND FUNDING**

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020-2024 <sup>1</sup>	2025-2029 <sup>1</sup>	2030-2035	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes) <sup>2</sup>														n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes) <sup>3</sup>				17.1	17.1	14.5	14.5	14.5	14.5	14.5	10.3	4.3	0.4	n/a
2.1	Lead IA [UNEP] agreed funding (US \$)	400,000		425,000				240,000							1,065,000
2.2	Support cost for Lead IA (US \$)	52,000		55,250				31,200							138,450
2.3	Cooperating IA [UNDP] agreed funding (US \$)	470,000			140,000			125,000							735,000
2.4	Support cost for Cooperating IA (US \$)	35,250			10,500			9,375							55,125
3.1	Total agreed funding (US \$)	870,000		425,000	140,000			365,000							1,800,000
3.2	Total support cost (US \$)	87,250		55,250	10,500			40,575							193,575
3.3	Total agreed costs (US \$)	957,250		480,250	150,500			405,575							1,993,575
4.1.1	Total phase-out of HCFCs agreed to be achieved under this agreement (ODP tonnes)														17.1
4.1.2	Phase-out of HCFCs to be achieved in previously approved projects (ODP tonnes)														-
4.1.3	Remaining eligible consumption for HCFC (ODP tonnes)														0

**FUNDING REQUEST:** Approval of funding for the first tranche (2010) as indicated above

<b>SECRETARIAT'S RECOMMENDATION:</b>	For individual consideration
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<sup>1</sup> Amount per year

<sup>2</sup> Cannot be determined until Article 7 data has been officially reported for 2010.

<sup>3</sup> The figures are based on the Starting point for aggregate reduction which is the 2009 Article 7 data.

## PROJECT DESCRIPTION

1. On behalf of the Government of the Cambodia UNEP, as the designated lead implementing agency, has submitted to the 61<sup>st</sup> Meeting of the Executive Committee an HCFC phase-out management plan (HPMP) at a total cost of US \$2,439,500 (US \$1,314,500 plus support costs for UNEP and US \$1,125,000 plus support costs for UNDP) as originally submitted for the phase-out of its HCFC consumption by 2030 with a service tail until 2040, as originally submitted. The HPMP closely follows the guidelines adopted by the Executive Committee in decision 54/39. Cambodia reported consumption of 311.17 metric tonnes (17.1 ODP tonnes) of HCFCs in 2009.

### Background

#### General information

2. Cambodia is located in Southeast Asia and has a land area of 181,035 square kilometres. In 2008, the country's estimated population was about 13.4 million comprised of about 2.8 million regular households, with around 20 per cent living in urban areas, and the rest living in rural areas. More than 50 per cent of the population is less than 21 years old. The Cambodian economy has been growing at an annual average of 10 per cent between 2004-2007 driven largely by an expansion in the garment, construction, agriculture, and tourism sectors. This was reduced to 7 per cent in 2008 as a result of the global economic crisis. Cambodia's economy is expected to grow in the future due to the continuing growth in the tourism industry, and the service sector, and the discovery of exploitable oil deposits in the country.

3. Cambodia is one of the later countries to become a party to the Montreal Protocol. It has ratified the Vienna Convention, the Montreal Protocol and all its amendments including the Beijing Amendment. The country programme/refrigerant management plan (CP/RMP) for Cambodia was approved at the 41<sup>st</sup> Meeting in 2003 and a terminal phase-out management plan (TPMP) in 2007. Cambodia's National Ozone Unit (NOU), placed under the Pollution Control Department – Ministry of Environment, was responsible for the implementation of the CP/RMP to phase-out CFCs, as well as the TPMP. The CP/RMP/TPMP adopted a comprehensive approach including establishing a legal framework, training of customs officers and service technicians, and establishing an incentive programme for end users such as a recovery and recycling scheme.

#### ODS regulations

4. The Government of Cambodia promulgated a Sub-Decree on ODS Management in March 2005. This decree established the licensing system and monitored the import and export of all controlled substances including HCFCs. Under this regulation, no ozone depleting chemical is allowed to enter the country without registration and without a permit for each shipment from the Ministry of Environment (MOE). This regulation also banned the import of CFC-based equipment and motor vehicles with CFC-based mobile air conditioning (MAC) from January 2006. It also included a restriction for the reverse retrofit of non-ODS based refrigeration equipment and MAC.

5. Since its inception in 2005, the Sub-Decree required importers of HCFCs to register with the MOE for import permits. There is no quota set for HCFC imports at present, however, the MOE will amend the Sub-Decree to improve control on HCFCs and set an annual import quota once the baseline for HCFCs has been determined from the average of 2009-2010 consumption.

#### HCFC Consumption:

6. The HPMP provided an overview of the consumption of HCFCs in the country. The country has no HCFC production; therefore the consumption is calculated only through imports predominantly of HCFC-22. The table below provides information on imports reported to the Ozone Secretariat. Between

2008 and 2009, there was a high increase of HCFC imports into the country due to stockpiling and changes in the HCFC market in exporting countries.

Table 1: HCFC consumption 2003 to 2009 as reported under Article 7

	2003	2004	2005	2006	2007	2008	2009
HCFC in ODP tonnes	2.8	4.2	6.2	6.0	8.0	7.9	17.1
HCFC in metric tonnes	51.9	77.0	112.5	109.2	145.7	143.3	311.1

7. The survey conducted during the HPMP preparation showed that Cambodia uses HCFCs only in the installation and servicing of refrigeration and air conditioning (AC) equipment which takes the largest share at 87 per cent among other uses of HCFCs. The survey did not find any use of HCFCs in foam-blowing, fire-fighting, or solvent applications, nor in feedstock applications. It also found no use or imports of HCFC blends into the country. Based on the end-user data survey, Cambodia used about 165 metric tonnes (mt) of HCFC-22 and 1.2 mt of HCFC-123 in 2008. There are also HFC-blended refrigerants (R-404A, R-407C, and R410A) being used.

8. The AC sector is comprised mostly of self contained units, either window or split-type AC systems. In 2009, installed AC capacity was found to be around 374,000 units. Most of the installations are in household (83 per cent); hotels, casinos and restaurants (12 per cent); and offices and commercial buildings (3 per cent). Remaining installations are in factories, schools and hospitals. It is estimated that about 40 per cent of total installations are serviced every year with emission rates of 0.8-0.9 kg. Around 143 mt of HCFC-22 was needed to service and maintain air conditioning equipment in 2008. For the chiller sector, 458 chillers were imported during 2004–2008. Installed chiller capacity includes mostly those using HCFC-22; a number using HFC based refrigerants, HCFC-123 and some older CFC-11 chillers. Estimated annual consumption of HCFC-22 to service existing chillers is approximately 15 mt. There is also a consumption of 1.2 mt of HCFC-123 to service centrifugal chillers. In Cambodia there are two main categories of equipment in commercial refrigeration: stand alone equipment and condensing units. Based on the end-user survey, there are about 10 modern supermarkets with installations of condensing units and other stand alone equipment that are using HCFC-22. The annual consumption to service this equipment is approximately 4 mt of HCFC-22. The transport refrigeration sub-sector is made up of small refrigerated trucks and vans that are used to transport refrigerated goods for the supermarkets, hotels and casinos, and frozen-food factories in Cambodia. It was estimated that 2 mt of HCFC-22 is used to service these trucks on an annual basis. The estimated HCFC use per sector in Cambodia is summarized in Table 2 below.

Table 2: Estimated use of HCFC in the refrigeration sector in Cambodia (2008) (mt)

Sub-sectors	HCFC-22		HCFC-123		Total		Share
	ODP	mt	ODP	mt	ODS	mt	
Air conditioning	7.8	143.0			7.8	143.0	87%
Chiller	0.9	15.0	0.024	1.2	0.924	16.2	10%
Commercial refrigeration	0.22	4.0			0.22	4.0	2%
Transportation refrigeration	0.11	2.0			0.11	2.0	1%
Total	9.03	164.0	0.024	1.2	9.05	165.2	100%

Source: National Ozone Unit

9. The survey identified 379 service workshops located in Phnom Penh and in 14 provinces. The number of workshops in 2009 has increased almost three times since 2003 when only 140 workshops were identified. Consequently, the number of service technicians also increased from 800 in 2003 to 2,500 in 2009. Out of these 379 workshops, 161 work exclusively in the MAC sub-sector, 127 service RAC equipment while 91 service both MAC and RAC equipment. The HPMP will address the 218 workshops that service refrigeration and air conditioning equipment by providing training as well as tool-kits for these technicians and workshops.

10. The HPMP also recognises that while there are no HCFC blends available nor imported into the country, the main alternatives to HCFCs available in Cambodia are HFC-134a and other HFC blends. Ammonia is also being used in the brewery and frozen food business. The table below shows the prices of HCFC and HFC blends imported into the country.

Table 3: CIF price of refrigerants imported to Cambodia from in 2009

<b>Refrigerant</b>	R-22	R-404A	R-134A	R-407C	R-410A
<b>Price/kg (US \$)</b>	3.4	8.1	5.7	8.8	13.2

Strategy and implementation of the HCFC phase-out plan

11. Cambodia’s HPMP proposes a phase-out schedule with interim reductions faster than the current Montreal Protocol control measures for HCFCs. It intends to fully phase out HCFCs by 2030 but with a reduced service tail of five years only from 2030-2035. It will meet reductions following the table below:

Table 4: Proposed Phase out schedule by Cambodia

Schedule	Cambodia Reduction Targets
Average 2009-10	Baseline level
January 1, 2013	Freeze at baseline
January 1, 2015	15% below baseline
January 1, 2020	40% below baseline
January 1, 2025	75% below baseline
January 1, 2030*	100% phase-out *average of 2.5% for service tail until end 2034

12. The activities in the HPMP were designed to address three strategic elements crucial to the successful phase out of HCFCs in the country, namely, limit the supply of HCFCs, reduce the demand for them and limit new demand. These will be undertaken through activities which are a combination of non-investment activities (policy instruments, training and awareness raising and equipment labelling) and investment activities (provision of tools for servicing, pilot retrofit/reclamation programme) to be implemented by UNEP and UNDP respectively. In terms of co-financing, the HPMP indicates that the government will provide some counterpart funding for the implementation of the HPMP and that they are continuing to explore co-funding available under UNEP’s SEA Climate Change Network supported by the Government of Finland that could be utilized to promote climate mitigation activities in Cambodia.

13. The HPMP describes an overall strategy for complete HCFC phase-out, and the specific elements where funding is requested include the following:

- (a) Policy enforcement and training of enforcement officers;
- (b) Refrigeration servicing training and certification of technicians;
- (c) Technical assistance for the servicing sector:
  - (i) Technical support for good practice refrigeration;
  - (ii) End-user retrofit/pilot investment programme;
- (d) Information and education campaign to support HCFC phase-out; and
- (e) Project Management & Monitoring.

14. Under the HCFC policy component, Cambodia will strengthen its licensing system for HCFCs and establish an import quota for bulk HCFC-22 from 2012 onwards, based on its baseline consumption and following the schedule outlined in paragraph 11 above. A ban on the installation of large HCFC-using refrigeration equipment will commence in 2015, while a complete ban on imports of new air conditioners containing HCFCs into the country is planned for 2020 with interim reductions in between. Under this component, the country will also institute a labelling system for HCFC-containing and HCFC-free equipment, as well as for energy efficiency of such equipment and that using alternatives. It is envisaged that such labels will encourage better consumer choices.

15. The HPMP also foresees activities that will consist of training service technicians in adopting good practices in servicing both HCFC and non-HCFC refrigeration equipment, as well as the certification of technicians and provision of new tools for the service workshops in order to better service equipment.

16. The technical assistance component will be provided to the servicing sector and this will focus on reducing demand for HCFCs through a reclaim programme and an equipment retrofit programme that will be implemented in the country. Under this programme, 5 small reclaim centres for recovery and recycling of HCFCs will be established, and are proposed to be operated by trained service technicians. These centres would also record, track and report on incoming and outgoing refrigerants. Once implemented, this will encourage the collection of the refrigerant and reduce the demand for new HCFCs, thereby ensuring a supply for servicing. The key concept underlying this mechanism is to acknowledge and harness market forces to ensure commercial viability and sustainability and also to ensure ownership of the servicing establishments.

17. The other element of this technical assistance is the end-user retrofit pilot incentive programme which aims to initiate incentives for end-users to retrofit their HCFC-based equipment to non-HCFC alternatives, on a pilot basis. Incentive funding would be provided to the servicing establishments upon submission of evidence that the retrofits were adequately and satisfactorily carried out. Each end user would be provided with financial assistance covering the actual retrofitting/replacement costs against satisfactory completion of conversion and satisfactory documentation justifying the costs. It is expected that upon completion of this activity, demonstration cases of successful retrofitting of HCFC-based refrigeration and air conditioning systems will build confidence among other end-users, so precipitating early retrofitting decisions and reducing demand for HCFCs.

18. The total cost of the HPMP for Cambodia after discussion with the Secretariat is proposed at US \$1,800,000, with a breakdown provided in Table 5 below. In addition to this, the Government will provide counterpart funding of US \$60,000 for the implementation of the HPMP, which will cover contributions to the awareness campaign as well as the project management unit. A more detailed table with the specific activities for each of the components including a timetable for implementation is attached as Annex I to this document.

Table 5: Budget overview of the HPMP

Activity	Multilateral Fund		Estimated Total Cost (US \$)
	UNEP	UNDP	
<b>Policy, regulations and enforcement</b>			
a. Policy review and amendments of regulations	30,000		30,000
b. Training of enforcement officers	133,000		133,000
<b>Refrigeration servicing</b>			
a. Training of technician	317,000		317,000
b. Certification of refrigeration technician	85,000		85,000
<b>Servicing sector</b>			
a. Technical assistance to support good servicing practice		340,000	340,000
b. Retrofit incentive project for end-users		395,000	395,000
<b>Information, education, and communication (IEC)</b>			
IEC	210,000		210,000
<b>Project Management &amp; Monitoring</b>			
Project Management Unit	290,000		290,000
<b>TOTAL</b>	<b>1,065,000</b>	<b>735,000</b>	<b>1,800,000</b>

#### Impact on the climate

19. The Government of Cambodia, proposes that in the near future, HCFC-22-based equipment may be retrofitted or replaced with HCFC free technology. For unitary air-conditioning equipment, the currently available technical option for replacement would be R-407C, as this could be a drop-in substitute in a number of existing equipment. In other categories of equipment, technical options could include HFCs and non-HFC based refrigerants (e.g., HCs, ammonia, CO<sub>2</sub>, etc.).

20. An estimated calculation of the potential impact on the climate on the basis of the GWP value of the replacements alone has been made for unitary air-conditioning equipment only which is the largest HCFC-using sector in the country and where the specific alternative for replacement is known. The estimated bank of HCFC-22 in AC systems is 406 metric tonnes. Assuming around 70 per cent of this equipment could be replaced/retrofitted with R-407C as direct drop in replacement could result to about 268,000 tonnes of CO<sub>2</sub> emission reduction on a phased basis. The rest of the 30 per cent is also envisaged to be replaced with low GWP alternatives. There will likewise be a positive impact on the climate from the pilot recovery and recycling component which will reduce HCFC emissions and demand for virgin HCFCs. Assuming 10 mt of HCFC recovered and reused per annum, this would be equivalent to about 18,000 tonnes of CO<sub>2</sub>-eq emission reduction per year. Once the equipment reaches its end-of-life, it is



expected to be replaced by R-410A or R-407C equipment under the current circumstances of technologies available (Table 6). This estimate of potential climate impact does not include benefits that may accrue on account of better servicing of this equipment through good practice, nor the impact on energy efficiency as old equipment is replaced with more energy efficient and better designed equipment. The uncertainties around technology options available in other applications i.e., commercial, industrial and transport applications does not allow for estimation on potential CO<sub>2</sub> emissions at this time.

21. The impact of energy efficiency on GHG emissions is also not calculated. Given that Cambodia is generating energy through oil based power generation equipment, for every kwh of electricity saved, GHG emissions reduced would be greater than 0.5 kg CO<sub>2</sub>-eq.

Table 6: Potential impact on the climate

Parameter	HCFC-22	HCFC-22	R-407C	Total CO <sub>2</sub> -eq (tonnes/yr)
Refrigerant charge (metric tonnes)	406	10*	284.2	
GWP	1,780	1,780	1,600	
CO <sub>2</sub> -eq HCFC-22 (in existing equipment)	722,680			722,680
CO <sub>2</sub> -eq HCFC-22 (saved from use of recycled HCFC)		17,800		17800
CO <sub>2</sub> -eq R407C			454,720	454,720
Impact CO <sub>2</sub> -eq				(250,160)

\*Recycled and recovered

#### Starting point for aggregate reduction in HCFC consumption

22. Cambodia has decided that its 2009 Article 7 consumption of 311.1 mt (17.1 ODP tonnes) of HCFCs will be the starting point for aggregate reductions in HCFC consumption in line with decision 60/44 adopted at the 60<sup>th</sup> Meeting of the Executive Committee.

## **SECRETARIAT'S COMMENTS AND RECOMMENDATION**

### **COMMENTS**

23. The Secretariat reviewed the HPMP in line with decision 54/39, Guidelines for the preparation of HPMP. It notes that this HPMP submitted for Cambodia looks at a complete phase out of HCFCs in 2035, with the years 2030-2034 providing for a service tail of only five years which is earlier than the Montreal Protocol's control measures. It describes all the activities that will be implemented in the country, and provides an overall direction and strategy on how this plan to phase-out earlier may be achieved.

24. As originally submitted, the HPMP indicated a total funding at the level of US \$2.4 million for the complete phase-out of HCFCs with greater interim reductions than the Montreal Protocol measures with a complete phase-out in 2030 and a service tail of 5 years only up to 2035.

25. The Secretariat discussed with both UNEP and UNDP issues that related to the ODS regulation in place, the establishment of quotas for HCFCs, the activities proposed vis-à-vis the phase-out plan proposed by the country, and the costs of the individual components. Many of these were satisfactorily addressed, and revisions were made to the HPMP following these discussions.

26. The HPMP foresees activities in the servicing sector such as training and enhanced awareness raising to be the main non-investment actions as well as the recovery and recycling programme that are

required by the country to meet compliance with its targets. The investment components as designed provide a good opportunity for the country to maintain a stock of reclaimed refrigerant therefore reducing demand for new HCFCs. According to UNDP, these two investment components need to be completed during the first years of implementation if these are to support the full phase-out, and foresees an implementation timeframe of 2010-2018. The Secretariat also noted that the Government has selected its 2009 reported consumption under Article 7 of 311.1 mt (17.1 ODP t) as its starting point for HCFC reductions.

27. In discussing the total cost of the initial HPMP submission with UNEP and UNDP, the Secretariat emphasized that at its 60<sup>th</sup> Meeting, the Executive Committee, in decision 60/44 decided on funding levels for the countries with HCFC consumption of 360 mt or less and in the refrigeration servicing sector only and expressed concerns on the total cost of the HPMP and on the proposal to accelerate interim reductions vis-à-vis the ability of the country to meet more stringent control measures. It emphasised that the funding proposed is much higher than the levels agreed, and should be adjusted accordingly. UNEP indicated that while the country is fully committed to these faster reduction measures (i.e. 5% faster), it was concerned that the funding levels agreed in the current guidelines would not be sufficient to allow them to comply with the Montreal Protocol schedule, and is therefore opting for a one-time funding to cover the full phase-out of HCFCs with a proposal higher than the approved maximum amount. In discussing with the country, both implementing agencies adjusted the funds requested, as well as the activities and also moved the service tail forward by five years. UNEP as lead agency also indicated that while the adjusted amount is still higher than what is eligible under decision 60/44, the country commits that the requested funding is for the full phase-out of HCFCs in Cambodia, and no further funding will be requested for the phase-out of HCFCs in the country. UNEP also indicated that this would also imply some savings for project preparation for the remaining phase of the HPMP, which could balance out the additional funds requested.

28. Based on the above discussions, the overall cost of the HPMP for Cambodia was considered and agreed with the Secretariat at US \$1,800,000, as shown in paragraph 18 and Table 5 above, taking into consideration the following elements:

- (a) The starting point for aggregate reductions is 311.1 mt (17.1 ODP tonnes);
- (b) The country will follow an accelerated phase-out schedule as shown in paragraph 11;
- (c) The agreed funding, which is US \$200,000 more than the maximum level of funding for the complete phase-out of HCFCs for a country with a consumption level of between 200 and 320 mt of US \$1,600,000, is agreed on an exceptional basis since the country will secure faster and earlier phase-out, and no further funding will be requested for Cambodia for the HPMP in future;

29. Out of this funding level, UNEP and UNDP are requesting US \$870,000 plus support costs, for the first tranche.

#### Adjusted 2010-2014 business plans

30. Table 7 shows the level of funding and amounts of HCFCs to be phased out according to the adjusted 2010-2014 business plan of the Multilateral Fund.

Table 7: Adjusted 2010-2014 business plan of the Multilateral Fund

Agency	2010	2011	2012	2013	2014	Total
<b>Funding (US\$)</b>						
UNDP	113,000	113,000	106,000	0	0	332,000
UNEP	46,000	0	0	0	0	46,000
Total	159,000	113,000	106,000			378,000
<b>Phase-out (ODP tonnes)</b>						
UNDP	1.7	1.7	1.7	1.7	1.7	8.5
UNEP	0.6	0	0	0	0	0.6
Total	2.3	1.7	1.7	1.7	1.7	9.1

31. UNEP and UNDP are requesting US \$1,800,000 plus support costs for the full phase-out of HCFCs in Cambodia. This is divided into four tranches for the HPMP, namely, 2010 (US \$870,000), 2012 (US \$425,000), 2013 (US \$140,000) and 2016 (US \$365,000). The total value requested for the period 2010-2014 of US \$1,435,000, is US \$1,047,000 above the total amount in the adjusted business plan.

32. At this meeting, UNEP is requesting US \$870,000 for the 2010 tranche to implement the 2010-2011 work programme. This amount exceeds the allocation in the adjusted business plan of US \$378,000 (see table 7 above) by US \$492,000. Based on the 2009 HCFC consumption of Cambodia of 311.1 mt, the country's allocation up to the 2020 phase-out should be US \$560,000 in line with decision 60/44. The requested 2010 tranche would still be US \$310,000 over this amount. The Secretariat also notes that while this amount results in more resources than allocated in the business plan, decision 60/15 does allow for a case-by-case consideration of HPMPs from countries with low-volume consumptions covering an accelerated phase-out, provided there is a strong, national level of commitment to support this level of phase-out. The Secretariat notes that the total tonnage in the business plan of 9.1 ODP tonnes exceeds the ODP phase-out required to meet the 10 per cent reduction in the baseline tonnage by 8.2 ODP tonnes for Cambodia.

#### Draft agreement

33. A draft agreement between the Government of Cambodia and the Executive Committee for phase-out of consumption of HCFCs is contained in Annex II to the present document.

#### **RECOMMENDATION**

34. The HPMP for Cambodia is submitted for individual consideration. The Executive Committee may wish to consider:

- (a) Approving in principle, and on an exceptional basis, the HCFC phase-out management plan (HPMP) for Cambodia, at the amount of US \$1,800,000, plus agency support costs of US \$193,575 (US \$1,065,000 plus support costs of US \$138,450 for UNEP, and US \$735,000 plus support costs of US \$55,125 for UNDP) noting that this level of funding is for accelerated HCFC phase-out up to 2035, on the condition that no further funding will be provided to Cambodia for the phase-out of HCFCs in the country;
- (b) To note with appreciation the commitment by the Government of Cambodia to accelerate reduction of HCFC consumption in advance of the Montreal Protocol schedule;

- (c) To approve the Agreement between the Government of Cambodia and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex II to the present document; and
- (d) To approve the first implementation plan for 2010-2011, and the first tranche of the HPMP for Cambodia at the total amount of US \$870,000, plus agency support costs of US \$87,250 as 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 (first tranche)	400,000	52,000	UNEP
(b)	HCFC phase-out management plan (first tranche)	470,000	35,250	UNDP

## Annex I

## Cost estimation of Cambodia HPMP

Activity	Multilateral Fund		In-kind contribution	Estimated Total Cost (US \$)	Start date	End date
	UNEP	UNDP				
<b>Policy, regulations and enforcement</b>						
a. Policy review and amendments of regulations	30,000		10,000	40,000	January 2011	December 2011
b. Training of enforcement officers	133,000			133,000	July 2012	December 2013
<b>Refrigeration servicing</b>						
a. Training of technician	317,000			317,000	January 2011	December 2016
b. Certification of refrigeration technician	85,000			85,000	July 2011	December 2012
<b>Servicing sector</b>						
a. Technical assistance to support good servicing practice		340,000		340,000	January 2011	December 2016
b. Retrofit incentive project for end-users		395,000		395,000	January 2011	December 2018
<b>Information, education and communication</b>						
IEC	210,000		10,000	220,000	January 2011	December 2020
<b>Project Management &amp; Monitoring</b>						
Project Management Unit	290,000		40,000	330,000	January 2011	December 2020
<b>TOTAL (US \$)</b>	<b>1,065,000</b>	<b>735,000</b>	<b>60,000</b>	<b>1,860,000</b>		

**DRAFT AGREEMENT BETWEEN CAMBODIA AND THE EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF  
HYDROCHLOROFLUROCARBONS**

1. This Agreement represents the understanding of the Government of Cambodia and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A (the “Substances”) to a sustained level of 0.4 ODP tonnes prior to 1 January 2035 in compliance with Montreal Protocol schedules.
2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (the “Targets and Funding”) in this Agreement. The country also agrees to meet the annual consumption limits specified in the Montreal Protocol reduction schedule for all Substances as well as for those ODS where the Montreal Protocol reduction schedule has already lead to complete phase-out, except to the degree that the Parties have agreed on essential or critical use exemptions for the Country. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances which exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this agreement for all ODS specified in Appendix 1-A, and in respect to any consumption of each of the substances which exceeds the level defined in row 4.1.1.
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees in principle to provide the funding set out in row 3.1 of Appendix 2-A (the “Targets and Funding”) to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (the “Funding Approval Schedule”).
4. The Country will meet the consumption limits for each of the Substances as indicated in Appendix 2-A. It will also accept independent verification, to be commissioned by the relevant implementing agency (IA), of achievement of these consumption limits as described in sub-paragraph 5(b) of this Agreement.
5. The Executive Committee will not provide the Funding in accordance with the Funding Approval Schedule unless the Country satisfies the following conditions at least 60 days prior to the applicable Executive Committee meeting set out in the Funding Approval Schedule:
  - (a) That the Country has met the Targets for all relevant years. Relevant years are all years since the year in which the hydrochlorofluorocarbons phase-out management plan (HPMP) was approved. Exempt are years for which no obligation for reporting of country programme data exists at the date of the Executive Committee Meeting at which the funding request is being presented;
  - (b) That the meeting of these Targets has been independently verified, if requested by the Executive Committee consistent with paragraph (d) of decision 45/54;
  - (c) That the Country has substantially completed all actions set out in the previous tranche implementation plan and submitted a tranche implementation report in the form of Appendix 4-A (the “Format of Tranche Implementation Report and Plan”) for each previous calendar year; and

- (d) That the Country has submitted and received endorsement from the Executive Committee for tranche implementation plans in the form of Appendix 4-A (the “Format of Tranche Implementation Reports and Plans”) for each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (the “Monitoring Institutions and Roles”) will monitor and report on that monitoring in accordance with the roles and responsibilities set out in Appendix 5-A. This monitoring will also be subject to independent verification as described in sub-paragraph 5(b).

7. While the Funding was determined on the basis of estimates of the needs of the Country to carry out its obligations under this Agreement, the Executive Committee agrees that the Country may have the flexibility to reallocate the approved funds, or part of the funds, according to the evolving circumstances to achieve the goals prescribed under this Agreement. Reallocations categorized as major changes must be documented in advance in a tranche implementation plan and endorsed by the Executive Committee as described in sub-paragraph 5(d). Major changes would relate to reallocations affecting in total 30% or more of the funding of the last approved tranche, issues potentially concerning the rules and policies of the Multilateral Fund, or changes which would modify any clause of this agreement. Reallocations not categorized as major changes may be incorporated in the approved tranche implementation plan, under implementation at the time, and reported to the Executive Committee in the tranche implementation report. Any remaining funds will be returned to the Multilateral Fund upon closure of the last tranche of the plan.

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sub-sector, in particular that the:

- (a) Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and
- (b) Country and the implementing agencies will take full account of the requirements of decisions 41/100 and 49/6 during the implementation of the plan.

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfill the obligations under this Agreement. UNEP has agreed to be the lead implementing agency (the “Lead IA”) and UNDP has agreed to be cooperating implementing agency (the “Cooperating IA”) under the lead of the Lead IA in respect of the Country’s activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of any of the IA taking part in this Agreement.

10. The Lead IA will be responsible for carrying out the activities of the plan as detailed in the first submission of the HPMP with the changes approved as part of the subsequent tranche submissions, including but not limited to independent verification as per sub-paragraph 5(b). This responsibility includes the necessity to co-ordinate with the Cooperating IA to ensure appropriate timing and sequence of activities in the implementation. The Cooperating IA will support the Lead IA by being responsible for carrying out the activities listed in Appendix 6-B under the overall co-ordination of the Lead IA. The Lead IA and Cooperating IA have entered into a formal agreement regarding planning, reporting and responsibilities under this Agreement to facilitate a co-ordinated implementation of the Plan, including

regular co-ordination meetings. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised funding approval schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amounts set out in Appendix 7-A in respect of each ODP tonne of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the country did not comply with this agreement, and take related decisions. Once these decisions are taken, this specific case will not be an impediment for future tranches as per paragraph 5.

12. The funding components of this Agreement will not be modified on the basis of any future Executive Committee decision that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee, the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to information necessary to verify compliance with this Agreement.

14. The completion of the HPMP and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption has been specified in Appendix 2-A. Should at that time activities be still outstanding which were foreseen in the plan and its subsequent revisions as per sub-paragraph 5(d), the completion will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per Appendix 4 A (a), (b), (d) and (e) continue until the time of the completion if not specified by the Executive Committee otherwise.

15. All of the agreements set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

## APPENDICES

### APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reduction in consumption (ODP tonnes)
HCFC-22 HCFC-123	C	I	17.1



**APPENDIX 2-A: THE TARGETS, AND FUNDING**

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020-2024 <sup>1</sup>	2025-2029 <sup>1</sup>	2030-2035	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes) <sup>2</sup>														n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes) <sup>3</sup>				17.1	17.1	14.5	14.5	14.5	14.5	14.5	10.3	4.3	0.4	n/a
2.1	Lead IA [UNEP] agreed funding (US \$)	400,000		425,000				240,000							1,065,000
2.2	Support cost for Lead IA (US \$)	52,000		55,250				31,200							138,450
2.3	Cooperating IA [UNDP] agreed funding (US \$)	470,000			140,000			125,000							735,000
2.4	Support cost for Cooperating IA (US \$)	35,250			10,500			9,375							55,125
3.1	Total agreed funding (US \$)	870,000		425,000	140,000			365,000							1,800,000
3.2	Total support cost (US \$)	87,250		55,250	10,500			40,575							193,575
3.3	Total agreed costs (US \$)	957,250		480,250	150,500			405,575							1,993,575
4.1.1	Total phase-out of HCFCs agreed to be achieved under this agreement (ODP tonnes)														17.1
4.1.2	Phase-out of HCFCs to be achieved in previously approved projects (ODP tonnes)														-
4.1.3	Remaining eligible consumption for HCFC (ODP tonnes)														0

<sup>1</sup> Amount per year

<sup>2</sup> Cannot be determined until Article 7 data has been officially reported for 2010.

<sup>3</sup> The figures are based on the starting point for aggregate reduction which is the 2009 Article 7 data.

### **APPENDIX 3-A: FUNDING APPROVAL SCHEDULE**

1. Funding for the future tranches will be considered for approval not earlier than the second meeting of the year specified in Appendix 2-A.

### **APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORTS AND PLANS**

1. The submission of the Tranche Implementation Report and Plan will consist of five parts:
  - (a) A narrative report regarding the progress in the previous tranche, reflecting on the situation of the Country in regard to phase out of the substances, how the different activities contribute to it and how they relate to each other. The report should further highlight successes, experiences and challenges related to the different activities included in the plan, reflecting on changes in the circumstances in the country, and providing other relevant information. The report should also include information about and justification for any changes vis-à-vis the previously submitted tranche plan, such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes. The narrative report will cover all relevant years specified in sub-paragraph 5(a) of the Agreement and can in addition also include information about activities in the current year;
  - (b) A verification report of the HPMP results and the consumption of the substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement. If requested by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;
  - (c) A written description of the activities to be undertaken in the next tranche, highlighting their interdependence and taking into account experiences made and progress achieved in the implementation of earlier tranches. The description should also include a reference to the overall plan and progress achieved, as well as any possible changes to the overall plan foreseen. The description should cover the years specified in sub-paragraph 5(d) of the Agreement. The description should also specify and explain any revisions to the overall plan which were found to be necessary;
  - (d) A set of quantitative information for the report and plan, submitted online into a database, as per the relevant decisions of the Executive Committee in respect to the format required. This quantitative information, to be submitted by calendar year, will be amending the narratives and description for the report (see sub-paragraph 1(a) above) and the plan (see sub-paragraph 1(c) above), and will cover the same time periods and activities; it will also capture the quantitative information regarding any necessary revisions of the overall plan as per sub-paragraph 1(c) above. While the quantitative information is required only for previous and future years, the format will include the option to submit in addition information regarding the current year if desired by the country and agency; and
  - (e) An Executive Summary of about five paragraphs, summarizing the information of above sub-paragraphs 1(a) to 1(d).

## **APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES**

1. Appendix 5-A, Monitoring Institutions and Roles, may vary from agreement to agreement. Previous agreements entered by the Committee as reflected in the Reports of the Meetings as well as the existing agreements for the TPMP should be referenced to provide relevant examples. The principle need is for the appendix to provide a detailed and credible indication of how progress is to be monitored and which organizations will be responsible for the activities. Please take into account any experiences from implementing the TPMP, and introduce the relevant changes and improvements.

## **APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY**

1. The Lead IA will be responsible for a range of activities. These can be specified in the project document further, but include at least the following:
  - (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's phase-out plan;
  - (b) Assisting the Country in preparation of the Tranche Implementation Plans and subsequent reports as per Appendix 4-A;
  - (c) Providing verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the Tranche Implementation Plan consistent with Appendix 4-A.
  - (d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future tranche implementation plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
  - (e) Fulfilling the reporting requirements for the tranches and the overall plan as specified in Appendix 4-A as well as project completion reports for submission to the Executive Committee; this responsibility includes the reporting about activities undertaken by the Cooperating IA.
  - (f) Ensuring that appropriate independent technical experts carry out the technical reviews undertaken by the Lead IA;
  - (g) Carrying out required supervision missions;
  - (h) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;
  - (i) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
  - (j) Ensuring that disbursements made to the Country are based on the use of the indicators; and
  - (k) Providing assistance with policy, management and technical support when required.

2. After consultation with the country and taking into account any views expressed, the Lead IA will select and mandate an independent organization to carry out the verification of the HPMP results and the consumption of the substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 1(b) of Appendix 4-A.

#### **APPENDIX 6-B: ROLE OF COOPERATING IMPLEMENTING AGENCY**

1. The Cooperating IA will be responsible for a range of activities. These might be included, as relevant, in this plan or they may have received funding previously, but be considered to be part of the HPMP. These activities can be specified in the respective project document further, but include at least the following:

- (a) Providing policy development assistance when required;
- (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA to ensure a co-ordinated sequence in the activities; and
- (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A.

#### **APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY**

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$10,000 per ODP tonne of reductions in consumption not achieved in the year.

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