UNITED NATIONS





## United Nations Environment Programme

Distr. GENERAL

UNEP/OzL.Pro/ExCom/63/38 10 March 2011

**ORIGINAL: ENGLISH** 



EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL Sixty-third Meeting Montreal, 4-8 April 2011

#### PROJECT PROPOSAL: THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

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, first tranche)

UNEP and France

## PROJECT EVALUATION SHEET - MULTI-YEAR PROJECTS

## The Lao People's Democratic Republic

(I) PROJECT TITLE	AGENCY
HCFC phase-out management plan (stage I, first tranche)	France, UNEP (lead)

(II) LATEST ARTICLE 7 DATA	Year: 2009	1.2 (ODP tonnes)
----------------------------	------------	------------------

(III) LATEST	(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP							Year: 2009				
Chemical	Aerosol	Foam	Fire fighting	Refrigerati	Solvent	Process agent	Lab Use	Total sector consumption				
				Manufacturing Servicing								
HCFC-141b												
HCFC-22				1.2					1.2			

(IV) CONSUMPTION DATA (ODP tonnes)										
2009 - 2010 baseline (estimate): 1.77 Starting point for sustained aggregate reductions: 5.0										
CONSUM	CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)									
Already approved:	0.0	Remaining:	4.39							

(V) BUS	(V) BUSINESS PLAN		2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.2				0.2						0.3
	Funding (US \$)	109,000				85,100						194,100
France	ODS phase-out (ODP tonnes)											0.0
	Funding (US \$)											0

(VI) PROJECT DATA			2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits (estimate)					1.77	1.77	1.59	1.59	1.59	1.59	1.59	1.15	
Maximum allowable c tonnes)	onsumption	n (ODP			1.77	1.77	1.59	1.59	1.59	1.59	1.59	1.15	
Project Costs requested in	France	Project costs					TBD					TBD	TBD
principle(US\$)		Support costs					TBD					TBD	TBD
	UNEP	Project costs	TBD				TBD					TBD	TBD
		Support costs	TBD				TBD					TBD	TBD
Total project costs requested in principle (US \$)		TBD				TBD					TBD	TBD	
Total support costs requested in principle (US \$)			TBD				TBD					TBD	TBD
Total funds requested	in principle	(US \$)	TBD				TBD					TBD	TBD

(VII) Request for funding for the first tranche (2011)								
Agency	Agency Funds requested (US \$) Support costs (US \$)							
UNEP	TBD	TBD						

Funding request:	Approval of funding for the first tranche (2011) as indicated above
Secretariat's recommendation:	For individual consideration

#### PROJECT DESCRIPTION

- 1. On behalf of the Government of the Lao People's Democratic Republic UNEP, as the lead implementing agency, has submitted to the 63rd Meeting of the Executive Committee a HCFC phase-out management plan (HPMP) at a total cost of US \$280,000 plus agency support costs of US \$30,550 for UNEP and US \$5,850 for the Government of France, for the implementation of stage I of the HPMP as originally submitted. The HPMP covers strategies and activities to achieve the 35 per cent reduction in HCFC consumption by 2020.
- 2. The first tranche for stage I being requested at this meeting, amounts to US \$168,500 plus agency support of US \$21,905 for UNEP as originally submitted.

#### **Background**

#### **ODS** regulations

3. The Ministry of Water Resource and Administration (WREA) is the national body responsible for the implementation of the Montreal Protocol in the country. The National Ozone Unit (NOU), operating under WREA, is the agency coordinating and implementing activities. The Government has a decree and regulations in place to control the import, export and consumption of ozone-depleting substances (ODS). A licensing system covering HCFCs has been established. All ODS imports, except for HCFCs which are licensed for import until 2040, have been banned. The Government plans to amend the regulations to include HCFCs in the quota system by 2012.

#### HCFC consumption

- 4. Since the country does not have any HCFC production capacity, all HCFCs are imported. The survey undertaken during the HPMP preparation showed that HCFC-22 is the only HCFC being imported, predominantly used in servicing refrigeration and air-conditioning (RAC) equipment, and in charging new installations. During 2006 and 2007, the country reported a small quantity of HCFC-141b used as a flushing agent for servicing RAC and mobile air-conditioning (MAC) equipment. Such imports ceased from 2008. The country also imports HCFC-141b-based pre-blended polyol for production of flexible polyurethane foam, however, the HCFC-141b contained in polyol had not been reported under Article 7 data, and therefore not counted as consumption.
- 5. The alternative refrigerants used in the country mainly include HFC-134a, and HFC blended refrigerants R-404A and 410A. The imports of these alternatives are limited, but the quantity is unknown as licensing is not required for non-ODS refrigerants.
- 6. The 2009 HCFC-22 consumption obtained from the HPMP survey showed an increase of 77 per cent or 17.06 metric tonnes (mt) (0.94 ODP tonnes) over the 2009 data reported by the Government under Article 7. UNEP explained that the HCFC consumption reported in the Article 7 data was based on the records in the Customs Department and did not include the HCFC-22 used in the RAC units, which were directly installed by foreign companies. The HCFC survey data was collected from both service workshops and foreign companies, hence considered to be more accurate. Based on the results of the survey, the Government has submitted a request to the Ozone Secretariat to change the Article 7 data for 2009. A copy of the request was received by the Secretariat. Table 1 shows the level of HCFCs consumption in the country.

Table 1: HCFC level of consumption

	Article 7 data							Survey data					
Year	HCF	FC-22	HCF	C-141b	Total		HCFC-22		HCFC-141b		Total		
	mt	ODP t	mt	ODP t	mt	ODP t	mt	ODP t	mt	ODP t	mt	ODP t	
2005	32.26	1.77	0.00	0.00	32.26	1.77	32.26	1.77	0.00	0.00	32.26	1.77	
2006	29.06	1.60	0.15	0.02	29.21	1.62	29.06	1.60	0.15	0.02	29.21	1.62	
2007	28.69	1.58	0.61	0.07	29.31	1.65	28.69	1.58	28.65*	3.15	57.34	4.73	
2008	29.68	1.63	0.00	0.00	29.68	1.63	29.68	1.63	29.55*	3.25	59.23	4.88	
2009	22.03	1.21	0.00	0.00	22.03	1.21	39.09	2.15	30.87*	3.40	69.96	5.55	

<sup>\*</sup>This data includes the HCFC-141b in the pre-blended polyol.

#### Sectoral distribution of HCFCs in servicing sector

7. The survey covered all stakeholders and representative service workshops. The survey data gave the number of equipment installed in the domestic, commercial and industrial sectors and the amount of HCFC-22 required for servicing the equipment and for charging new installations. The total number of RAC equipment installed in the country using HCFC-22 was estimated at 326,390 units in 2009. The average charge for different types of equipment was estimated and used to calculate the total installed capacity. A summary of HCFC consumption, excluding HCFC-141b in the pre-blended polyols, by sector is shown in Table 2.

Table 2: HCFCs consumption by sector

Туре	Total number of	Total charge of refrigerant (tonnes)		Chargin new instal (tonn	lations	Serv dema (tonn	and	Total refrigerant demand	
	units	Metric	ODP	Metric	ODP	Metric	ODP	Metric	ODP
Air-conditioning	310,220	315.68	17.36	14.24	0.78	22.20	1.22	36.44	2.00
Chiller	27	1.17	0.06	0.20	0.01	0.15	0.01	0.35	0.02
Commercial Refrigeration	16,000	16.72	0.92	-	-	1.51	0.08	1.51	0.08
Cold Storage	143	1.43	0.08	0.63	0.03	0.16	0.01	0.79	0.04
Total	326,390	335.00	18.42	15.07	0.82	24.02	1.32	39.09	2.14

8. The major RAC equipment imported was air-conditioning units and refrigerators. The total number of RAC equipment units, using HCFCs and non-HCFC refrigerants, imported to the country was 132,384 in 2009. The country forecasts its future HCFC consumption based on the estimated needs for servicing existing RAC equipment and for charging new installations. The table below provides a summary of the forecast HCFC consumption, excluding HCFC-141b contained in imported pre-blended polyols, until 2020.

2010 2011 2012 2013 2014 2015 2016 2019 2020 2017 2018 MT 42.37 47.92 54.00 32.20 32.20 28.98 28.98 28.98 28.98 28.98 20.93 Constrained HCFC ODP 2.33 2.64 2.97 1.77 1.77 1.59 1.59 1.59 1.59 1.59 1.15 consumption Unconstrained 47.92 122.41 MT 42.37 54.00 60.63 67.81 75.53 83.80 92.62 101.99 111.92 **HCFC** ODP 2.33 2.97 4.15 4.61 5.09 2.64 3.33 3.73 5.61 6.16 6.73 consumption

Table 3: Forecast consumption of HCFCs in servicing sector

#### HCFC-141b consumption from the pre-blended polyols

9. During the survey undertaken for the HPMP preparation, three enterprises using imported HCFC-141b based pre-blended polyols for foam production were identified. All three enterprises are owned by Article 5 countries and their products are sold on the domestic market. The process of production is mainly hand mix and only basic equipment is involved. The average total annual consumption of HCFC-141b from 2007 to 2009 by the three enterprises was 29.49 mt (3.24 ODP tonnes). Table 4 provides a summary of the consumption by these enterprises.

**HCFC-141b** consumption Average Name of enterprise production unit 2007-2009 2007 2008 2009 Average Yin Ching 8.79 89.333 8.35 9.13 8.76 Dao Heuang 130,000 11.88 12.82 13.39 12.70 Huay Xai Motorcycle 7.94 82,000 7.81 8.35 8.03

301,333

28.04

29.55

30.87

29.49

Table 4: Level of consumption of HCFC-141b in pre-blended polyols

#### Estimated baseline for HCFC consumption in service sector

Total

10. The estimated baseline for HCFC consumption in the servicing sector was calculated by the country at 40.73 mt (2.24 ODP tonnes) by using the average of the 2009 consumption of 39.09 mt (2.15 ODP tonnes) obtained from the survey, and the estimated 2010 consumption of 42.37 mt (2.33 ODP tonnes). The Government estimated its HCFC consumption in 2010 based on estimated needs for refrigerants in servicing existing equipment and for charging new installations. This is an 8 per cent increase from the HCFC consumption in 2009.

#### HCFC phase-out strategy

- 11. The Government is proposing to follow the Montreal Protocol schedule and adopt a staged approach to achieve the complete phase-out of HCFCs by 2030 with a service tail to 2040. The current submission only consists of stage I of the HPMP to achieve a 35 per cent reduction by 2020, and focuses largely on activities for the servicing sector using HCFC-22.
- 12. The country included the HCFC-141b consumption contained in imported pre-blended polyols in the overarching strategy for stage I of the HPMP, but did not submit a sector plan and funding request. The Government indicated that it does not have any system house for pre-blended polyols. The blowing agent technology relies solely on the technology of system houses in China. Thus, it is not possible to predict when, and what alternative blowing agents will be adopted by the overseas system houses. Moreover, the foam manufacturing enterprises will follow the production technology adopted by their

parent companies. Based on these constraints, the Government wishes to include the phase-out of HCFC-141b consumption as part of this HPMP in order to seek funding support, but funding will be requested in 2015.

13. In stage I of the HPMP, the country will control the imports of bulk HCFCs through applying a strict licensing and quota system following the reduction schedule in the Montreal Protocol. The country will also reduce the demand for HCFCs for servicing existing equipment through refrigerant recovery and reuse, and the capacity building of technicians in better servicing practices. The summary of activities and proposed implementation period is shown in Table 5.

Table 5: Specific activities of the HPMP and proposed period of implementation

Description of activities	Implementation schedule
Policy review, amendments of regulations, training of customs officers	2011 - 2016
Training and certification of service technicians, equipment support for recovery and reuse.	2012 - 2020
Conversion of foam enterprises to non-HCFC technology	2015 - 2017
Information, public educating and communication	2012 - 2020
Project management and monitoring	2012 - 2020

#### Cost of the HPMP

14. The total cost of stage I of the HPMP has been estimated at US \$367,000 based on the estimated baseline of 40.73 mt (2.24 ODP t). This will achieve a 35 per cent reduction in HCFC consumption by 2020, resulting in a phase-out of 14.26 mt (0.78 ODP tonnes) of HCFCs. Of the total funding, US \$280,000 is being requested from the Multilateral Fund and US \$87,000 will be provided as in-kind contribution by the Government. As mentioned above, the funding for phasing out the HCFC-141b in the pre-blended polyols is not included in the current funding request. The detailed cost breakdown for stage I activities is listed in Table 6.

Table 6: Total cost of the HPMP

Description of activities	UNEP (US \$)	France (US \$)	Total MLF (US \$)	In-kind contribution from the country (US \$)
Policy review, amendments, training of customs officers	57,100	-	57,100	10,000
Training and certification of technicians, equipment support for recovery and reuse.	130,500	45,000	175,500	5,000
Information, public educating and communication	33,000	-	33,000	12,000
Project management and monitoring	14,400	-	14,400	60,000
Total (US \$)	235,000	45,000	280,000	87,000

#### SECRETARIAT COMMENTS AND RECOMMENDATION

#### **COMMENTS**

15. The Secretariat reviewed the HPMP for the Lao People's Democratic Republic in the context of the guidelines for the preparation of HPMPs (decision 54/39), the criteria for funding HCFC phase-out in the consumption sector agreed at the 60<sup>th</sup> Meeting (decision 60/44), subsequent decisions on HPMPs made at the 62<sup>nd</sup> Meeting and the 2011-2014 business plan of the Multilateral Fund.

#### Issue related to HCFC consumption

16. The Secretariat analyzed the level of 2009 HCFC consumption gathered from the survey in the context of number of households accessing electricity, import of HCFC-based equipment, and historical CFC and HCFC consumption as refrigerants. The following information was considered. The ratio of the number of domestic air conditioners to the number of households which have access to electricity is 0.44:1. The total consumption of CFC-12 and HCFC-22 was 51.22 mt in 2005, which were mainly used for servicing RAC equipment. Also there has been an increase in total HCFC-based equipment, hence HCFC demand would therefore be expected to increase. Based on the above information, the Secretariat considered that the HCFC consumption of 39.09 mt (2.15 ODP tonnes) obtained from the survey is at a reasonable level. The country has requested the Ozone Secretariat to revise the data accordingly.

#### Issue related to the estimated baseline

- 17. The Fund Secretariat advised UNEP that the 2009 survey data cannot be used for the calculation of the baseline unless it has been endorsed by the Ozone Secretariat. Although the country had requested a revision of its 2009 consumption data, this request would have to be considered by the Implementation Committee according to the procedure outlined in decision XV/19 of the Meeting of the Parties. The Secretariat then estimated the HCFC baseline as the average of the 2009 consumption of 22.03 mt (1.21 ODP tonnes) reported under Article 7, and the estimated 2010 consumption of 42.37 mt (2.33 ODP tonnes), resulting in an estimated baseline of 32.20 mt (1.77 ODP tonnes). The Secretariat advised UNEP that, based on decision 60/44(e), the estimated baseline will be adjusted once the 2010 data is reported. If the actual baseline is different from that used in the HPMP and leads to a different funding entitlement, the total funding for the HPMP will be adjusted accordingly in future tranches.
- 18. UNEP informed the Secretariat that the country considered that the HCFC consumption obtained from the survey reflected a realistic HCFC consumption profile in the country which it had based their phase-out strategy upon. Furthermore, decision 60/44(d) allows the Article 5 countries to choose between the most recent reported HCFC consumption under Article 7 of the Montreal Protocol at the time of the submission of the HPMP, and the average of consumption forecast for 2009 and 2010, in calculating starting points for aggregate reductions in HCFC consumption. The country requested the Secretariat through UNEP to bring this issue to the attention of the Executive Committee. The Secretariat has included this matter in the agenda item 8(a) "Overview of issues identified during project review" for the Executive Committee's consideration at the 63<sup>rd</sup> Meeting.

### Starting point for aggregate reduction in HCFC consumption

19. The Government of the Lao People's Democratic Republic has established its starting point for sustained aggregate reduction in HCFC consumption as the average of the actual consumption in 2009 from the survey and the estimated consumption in 2010, which has been estimated at 2.24 ODP tonnes, plus 3.24 ODP tonnes (average of 2007 to 2009) of HCFC-141b contained in imported pre-blended polyols systems not reported under Article 7 of the Montreal Protocol, resulting in a 5.48 ODP tonnes.

- 20. The Secretariat established a starting point for the country using the Secretariat's estimated baseline of 1.77 ODP tonnes, calculated using the Article 7 data for 2009 and the estimated consumption for 2010, plus the 3.24 ODP tonnes of consumption in the pre-blended polyols, resulting in a value of 5.01 ODP tonnes.
- 21. Depending on the outcome of the discussion of the Executive Committee on the issue of establishing the baseline consumption in low-volume-consuming countries (LVCs), the starting point for the Lao People's Democratic Republic will be either 5.01 ODP tonnes or 5.48 ODP tonnes.

#### Overarching strategy

- 22. The country chose to cover the 35 per cent reduction target by 2020 in stage I of the HPMP, and decided to submit the funding request for the phase-out of HCFC-141b in the foam sector in 2015 for the reasons stated in paragraph 12. The Secretariat advised that, the country could choose to achieve a 10 per cent reduction in HCFC consumption in stage I of the HPMP and still include the foam project in the next stage of the HPMP in 2015. Since, it does not include the funding request into the current HPMP, it may not be able to submit the funding request for the foam project until 2020 as the multi-year agreement would have been signed without foam sector funding.
- 23. The Government informed the Secretariat that it wishes to plan for 2020 during stage I of the HPMP as the Executive Committee has given the country this option. The funding level of US \$88,000 that would apply for the refrigeration servicing sector to achieve a 10 per cent reduction in 2015 is not sufficient to implement the activities proposed prior to 2015. The option to go to 2020 in stage I of the HPMP will allow the Government to plan for a longer term and to provide commitments of support to key stakeholders in advance.
- 24. Since the country has not been able to submit a foam sector plan, as requested in Executive Committee decision 61/47(c)(iii), the Secretariat has included this matter in the agenda item 8(a) "Overview of issues identified during project review" for the Executive Committee's consideration at the 63<sup>rd</sup> Meeting.

#### Technical and cost issues

- 25. With regards to the technology to be used in the foam sector, UNEP informed the Secretariat that the country wishes to choose low GWP hydrocarbon alternatives for the conversion of foam enterprises, but is concerned about the flammability of the hydrocarbon blowing agents especially when used in a concentrated form at smaller enterprises like the ones in the Lao People's Democratic Republic. The Secretariat queried other options such as methylene chloride. UNEP informed the Secretariat that, as the foam sector plan would be considered as an investment project, it wishes to leave the decision of choosing substitute technology to the implementing agency during the preparation of the foam sector plan.
- 26. The Secretariat raised the issue that it appeared that inadequate funding was planned for purchasing equipment and tools compared with funding planned for organizing workshops. UNEP provided an explanation that some equipment and tools have already been purchased under the terminal phase-out management plan, which can also be used for HCFC phase-out. As the funding is limited, the country believes that training for technicians and workshops will help raise awareness, change behaviour for conducting business, and improve servicing practice.
- 27. The activities in stage I of the HPMP are predominantly in the servicing sector. These include training of technicians, provision of equipment to facilitate refrigerant recovery and improving servicing practices. The country will also conduct awareness programmes and training of customs officers to control the imports of HCFCs.

#### Impact on the climate

28. The proposed technical assistance activities in the HPMP, which include the introduction of better servicing practices and enforcement of HCFC import controls, will reduce the amount of HCFC-22 used for refrigeration servicing. Each kilogram (kg) of HCFC-22 not emitted due to better refrigeration practices results in the savings of approximately 1.8 CO<sub>2</sub>-equivalent tonnes saved. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by the country, in particular training for technicians on improved service practice, and refrigerant recovery and reuse, indicate that it is likely that the country will achieve the reduction of 1,118.6 CO<sub>2</sub>-equivalent tonnes in emission to the atmosphere as estimated in the 2011-2014 business plan. However, at this time, the Secretariat is not in a position to quantitatively estimate the impact on the climate. The impact might be established through an assessment of implementation reports by, *inter alia*, comparing the levels of refrigerants used annually from the commencement of the implementation of the HPMP, the reported amounts of refrigerants being recovered and recycled, the number of technicians trained and the HCFC-22 based equipment being retrofitted.

#### Co-financing

29. In response to decision 54/39(h) on potential financial incentives and opportunities for additional resources to maximize the environmental benefits from HPMPs pursuant to paragraph 11(b) of decision XIX/6 of the Nineteenth Meeting of the Parties, the Government proposed that US \$87,000 would be provided as an in-kind contribution to support the implementation of the HPMP.

#### 2011-2014 business plan of the Multilateral Fund

- 30. UNEP and France are requesting US \$280,000 plus support costs for implementation of stage I of the HPMP. The total value requested for the period 2011-2014 of US \$ 171,195 including support cost is above the total amount in the business plan for the period. The difference in the figures is due to the difference in baseline between business plan and actual HPMP submitted.
- 31. Based on the Secretariat's estimated baseline consumption in the servicing sector of 32.20 mt (1.77 ODP tonnes), the country's allocation up to 2020 phase-out should be US \$210,000 in line with decision 60/44.

#### Project management, monitoring and evaluation

32. Monitoring and evaluation activities are planned to take place throughout the implementation period. The NOU will implement and monitor the project activities with the support from UNEP.

#### **Draft Agreement**

33. A draft Agreement between the Government and the Executive Committee for HCFCs phase-out is contained in Annex I to the present document.

#### RECOMMENDATION

34. In light of the issue raised on the calculation of the HCFC baseline for compliance, the Secretariat was unable to recommend the funding level for stage I of the HPMP for the Lao People's Democratic Republic. Depending on the outcomes of the discussion of the Executive Committee on the issue of establishing the baseline consumption in relation to decision 60/44 on funding level for the servicing sector in LVCs, and on the possibility to submit additional phase-out project before the end of stage I of the HPMP, the Executive Committee may wish to consider:

- (a) Approving in principle, stage I of the HCFC phase-out management plan (HPMP) for the Lao People's Democratic Republic for the period 2011 to 2020, at the amount of [US \$237,300] [US \$316,400], comprising of [US \$176,250] [US \$235,000] and agency support costs of [US \$22,913] [US \$30,550] for UNEP, and [US \$33,750] [US \$45,000] and agency support costs of [US \$4,388] [US \$5,850] for France;
- (b) Noting that the Government of the Lao People's Democratic Republic had agreed at the 63<sup>rd</sup> Meeting to establish as its starting point for sustained aggregate reduction in HCFC consumption the estimated baseline of [1.77] [2.24] ODP tonnes, calculated using actual reported consumption for 2009 of [1.21] [2.15] ODP tonnes and estimated consumption for 2010 of 2.33 ODP tonnes, plus 3.24 ODP tonnes of HCFC-141b contained in imported pre-blended polyol systems, resulting in [5.01] [5.48] ODP tonnes;
- (c) Approving the draft Agreement between the Government of the Lao People's Democratic Republic and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document, with the necessary changes to reflect the revised level of funding and remaining eligibility;
- (d) Requesting the Fund Secretariat, once the baseline data were known, to update Appendix 2-A to the draft Agreement to include the figures for maximum allowable consumption, and to notify the Executive Committee of the resulting levels of maximum allowable consumption and of any potential related impact on the eligible funding level, with any adjustments needed being made when the next tranche was submitted;
- (e) Approving the first tranche of stage I of the HPMP for the Lao People's Democratic Republic, and the corresponding implementation plan, at the amount of [US \$128,396] [US \$171,195], comprising of [US \$113,625] [US \$151,500] and agency support costs of [US \$14771] [US \$19,695] for UNEP; and
- (f) Whether to allow the Lao People's Democratic Republic to submit the foam sector plan for phasing out the HCFC-141b consumption contained in the pre-blended polyols in 2015.

#### Annex I

# DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF THE LAO PEOPLE'S DEMOCRATIC REPUBLIC 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 the Lao People's Democratic Republic (the "Country") 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 [1.15] [1.46] ODP tonnes prior to 1 January 2020 in compliance with Montreal Protocol schedules. with the understanding that this figure is to be revised one single time in 2011, when the baseline consumption for compliance would be established based on Article 7 data, with the funding to be adjusted accordingly, as per decision 60/44.
- 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 as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. 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 (maximum allowable total consumption of Annex C, Group I substances) as the final reduction step under this agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances which exceeds the level defined in rows 4.1.3 and 4.2.3 (remaining eligible consumption).
- 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 bilateral or implementing agency, 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 hydrochloroflurocarbons 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, except if the Executive Committee decided that such verification would not be required, consistent with paragraph (c) and (d) of decision 61/46;
  - (c) That the Country had submitted tranche implementation reports in the form of Appendix 4-A (the "Format of Tranche Implementation Report and Plan") covering each

- previous calendar year, that it had achieved a significant level of implementation of activities initiated with previously approved tranches, and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and
- (d) That the Country has submitted and received approval from the Executive Committee for a tranche implementation plan in the form of Appendix 4-A (the "Format of Tranche Implementation Reports and Plans") covering 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 Implementation of the activities in the previous tranche implementation plan in accordance with their 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. 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 smoothest phase-down and phase-out of the Substances specified in Appendix 1-A. Reallocations categorized as major changes must be documented in advance in a Tranche Implementation Plan and approved by the Executive Committee as described in sub-paragraph 5(d). Major changes would relate to reallocations affecting in total 30 per cent 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:
  - (a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and
  - (b) The Country and the bilateral and implementing agencies involved 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 France 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 implementing 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 coordination 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 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) and paragraph 7, 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 reductions in consumption (ODP tonnes)			
HCFC-22	С	I	[1.77] [2.24]			
HCFC-141b contained in pre-blended polyol	С	I	3.24			

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

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
1.1	Montreal Protocol			1.77	1.77	1.59	1.59	1.59	1.59	1.59	1.15	n/a
	reduction schedule of											
	Annex C, Group I											
	substances (ODP tonnes)											
1.2	Maximum allowable total			1.77	1.77	1.59	1.59	1.59	1.59	1.59	1.15	n/a
	consumption of Annex C,											
	Group I substances (ODP tonnes)											
	Lead IA UNEP agreed											
2.1	funding(US \$)	TBD				TBD					TBD	TBD
2.1	Support costs for Lead	100				100					155	TDD
2.2	IA(US \$)	TBD				TBD					TBD	TBD
	Cooperating IA France											
2.3	agreed funding (US \$)					TBD					TBD	TBD
	Support costs for											
2.4	Cooperating IA (US \$)					TBD					TBD	TBD
	Total agreed funding (US											
3.1	\$)	TBD				TBD					TBD	TBD
3.2	Total support cost (US \$)	TBD				TBD					TBD	TBD
3.3	Total agreed costs (US \$)	TBD				TBD					TBD	TBD
4.1.1	1 1									0.62		
4.1.2										0		
4.1.3										1.15		
4.2.1									0			
4.2.2									n/a			
4.2.3	4.2.3 Remaining eligible consumption for HCFC-141b in pre-blended polyols (ODP tonnes)  *Excludes funding for conversion of HCFC-141b contained in pre-blended polyol									3.24		

<sup>\*</sup>Excludes funding for conversion of HCFC-141b contained in pre-blended polyol

#### 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 into a database. As per the relevant decisions of the Executive Committee in respect to the format required, the data should be submitted online. This quantitative information, to be submitted by calendar year with each tranche request, 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 lead implementing 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. The annual consumption of HCFCs and other ODSs will be monitored through the Customs Department and Water Resources and Environment Administration.
- 2. The Customs Department and the Ministry of Industry and Commerce will control and monitor the import of ODS and products containing ODS respectively.
- 3. The Country's National Ozone Unit (NOU) will liaise with chemical importers and distributors to obtain HCFC consumption data and cross-check with data from the Customs Department. The NOU will carry out regular surveys of the market to gauge the penetration of non-HCFC substitutes and alternative technologies in the refrigeration air conditioning sector.
- 4. Ministries and Departments will develop plans and measures to monitor and control the ODS used in the maintenance and servicing of equipment under their control.
- 5. The NOU will monitor the implementation of capacity building activities with relevant agencies: refrigeration technician training (technical schools); enforcement officers training (Customs Department, Department of Domestic Trade).

6. Verification of the achievement of the performance targets specified in the Plan will be assigned to an independent company or consultant(s) by UNEP.

#### 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. The reporting requirements include the reporting about activities undertaken by the Cooperating IA;
  - (f) Ensuring that appropriate independent technical experts carry out the technical reviews;
  - (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) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country and the co-ordinating implementing agencies, the allocation of the reductions to the different budget items and to the funding of each implementing or bilateral agency involved;
  - (k) Ensuring that disbursements made to the Country are based on the use of the indicators;
  - (l) 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 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 \$180 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met.

----