UNITED NATIONS

EP

United Nations Environment Programme

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/62/48
4 November 2010

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Sixty-second Meeting
Montreal, 29 November - 3 December 2010

PROJECT PROPOSAL: SRI LANKA

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

Phase-out

- HCFC phase-out management plan (first tranche) UNDP/UNEP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
SRI LANKA

(I) PROJECT TITLE	AGENCY
HCFC Phase Out Management Plan	UNDP (lead), UNIDO

(II) LATEST ARTICLE 7 DATA	Year: 2009	13.41 (ODP tonnes)

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP									Year: 2009
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab Use	Total sector consumption
				Manufacturing	Servicing				
HCFC123									
HCFC124									
HCFC141b				0.3					0.3
HCFC142b									
HCFC22				1.7	9.2				10.9

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline (estimate):	14.09	Starting point for sustained aggregate reductions:	14.09
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	0	Remaining:	0

(V) BUSINESS PLAN		2010	2011	2012	2013	2014	Total
UNDP	ODS phase-out (ODP tonnes)	2.074					2.074
	Funding (US $)	272,655					272,655
UNEP	ODS phase-out (ODP tonnes)	0.537		0.537			1.074
	Funding (US $)	94,062		94,062			188,124

(VI) PROJECT DATA			2010	2011	2012	2013	2014	2015	2016-2019	2020	2021-2024	2025	2026-2029	2030	Total
Montreal Protocol consumption limits (estimate)			n/a	n/a	n/a	14.09	14.09	12.68	12.68	9.16	9.16	4.58	4.58	0.35	n/a
Maximum allowable consumption (ODP tonnes)			n/a	n/a	n/a	14.09	14.09	12.68	12.68	9.16	9.16	0.35	0.35	0	n/a
Project Costs requested in principle(US$)	UNDP	Project costs	450,000				250,000		130,000		49,000		49,860		928,860
		Support costs	33,750				18,750		9,750		3,675		3,740		69,665
	UNEP	Project costs	345,000				311,000		34,000						690,000
		Support costs	44,850				40,430		4,420						89,700
Total project costs requested in principle (US $)			795,000				561,000		164,000		49,000		49,860		1,618,860
Total support costs requested in principle (US $)			78,600				59,180		14,170		3,675		3,740		159,365
Total funds requested in principle (US $)			873,600				620,180		178,170		52,675		53,600		1,778,225

(VII) Request for funding for the first tranche (2010)			
Agency	Funds requested (US $)	Support costs (US $)	ODS phase-out (ODP tonnes)
UNDP	450,000	33,750	
UNEP	345,000	44,850	

Funding request:	Approval of funding for the first tranche (2010) as indicated above
Secretariat's recommendation:	Individual consideration

PROJECT DESCRIPTION

1. On behalf of the Government of Sri Lanka UNDP, as the lead implementing agency, has submitted to the 62nd Meeting of the Executive Committee the HCFC phase-out management plan (HPMP) at total cost, as originally submitted, of US $2,812,560 plus agency support costs of US $265,722. The HPMP is submitted as an overall plan for the complete phase-out of HCFCs in Sri Lanka according to an accelerated schedule (i.e., complete phase-out by 1 January 2025) and will be implemented jointly by UNDP and UNEP. The Government of Sri Lanka is requesting US $1,816,560 plus agency support costs of US $136,242 for UNDP and US $996,000 plus US $129,480 in support costs for UNEP to implement activities in the HPMP.

2. As originally submitted, UNDP is requesting US $1,050,560 plus support costs of US $78,800 and US $337,500 plus support costs of US $43,875 for UNEP for the first tranche of this HPMP.

Background

ODS regulations

3. The country has ratified the Vienna Convention, the Montreal Protocol and all its amendments including the Beijing Amendment. Since 1996, Sri Lanka has had in place a general regulation on ODS management and conditions for import/export including a licensing system covering all ozone depleting substances (ODS). Licensing for HCFCs imports is already mandatory in Sri Lanka, however the quota system is not yet in place and will be immediately integrated into the current legislation once the baseline is established. This quota system will include the control of HCFC-based equipment as well as bulk HCFC.

4. The National Ozone Unit (NOU) of Sri Lanka is the main body responsible for implementation of Montreal Protocol in the country. This unit operates directly under the Secretary of the Ministry of Environment & Natural Resources and has been operational since 1994. Policy decisions regarding the implementation of the Montreal Protocol are taken by a Coordinating Committee which includes officers from the Ministry of Trade & Commerce, Ministry of Science & Technology, Department of Meteorology, Department of Agriculture, Ministry of Defence, Sri Lanka Customs, Department of Import & Export, ODS importers, Ministry of Enterprise Development, Chamber of Commerce, Board of Investment, Sri Lanka Standards Institute, Ministry of Agriculture, and Ministry of Environment and Natural Resources. This committee is chaired by the Secretary of the Ministry of Environment and Natural Resources and the NOU staff takes part as active members.

HCFC consumption

5. Sri Lanka does not produce any HCFCs and imports these for its requirements. HCFCs are mainly imported from Singapore, China, India, UAE through 11 major registered importers. Consumption in the country is primarily in HCFC-22 and HCFC-141b. HCFC-22 is used mainly in refrigeration and air-conditioning sector applications in servicing and assembly/installation, while HCFC-141b is used for flushing and cleaning of RAC equipment during servicing and cleaning motors /electrical component. HCFC-141b pre-blended polyol is also used in manufacturing foam products and insulation foam in the country. Sri Lanka has also registered the use of some HCFC blends which were used as drop-in substitutes for CFC-based equipment.

6. The HPMP indicates that, over the last six years, consumption of HCFC-22 has been fluctuating due to inconsistent demand in the servicing sector and fluctuations in economic growth in the country. It

is however noted that HCFC consumption is expected to grow in the next few years primarily driven by the growth in applications in the RAC sector.

7. The consumption of HCFC-141b has also been growing over the last four years i.e., from 2006 to 2009 primarily due to an increase in usage for flushing refrigeration and air-conditioning system and equipment while servicing, and for foam manufacturing using pre-blended polyols. Table 1 shows the 2005-2009 level of HCFC consumption in Sri Lanka.

Table 1: HCFC level of consumption in Sri Lanka

Year	Article 7 data (tonnes)									
	HCFC blends		HCFC-22		HCFC-123		HCFC-141b		Total	
			MT	ODP	MT	ODP	MT	ODP	MT	ODP
2003			127.64	7.02	0	0	0	0	**127.64**	**7.02**
2004			202.73	11.15	0.50	0.01	28	3.08	**231.23**	**14.24**
2005	5.36	0	176.91	9.73	0.50	0.01	0	0	**182.77***	**9.74**
2006	13.72	0	223.64	12.30	0.50	0.01	0.55	0.060	**238.40***	**12.37**
2007	8.12	0	267.27	14.70	0	0	6	0.66	**273.27**	**15.36**
2008	8.46	0	172.55	9.49	0.50	0.01	6.91	0.76	**179.96**	**10.26**
2009	13.32	0	211.51	11.63	0	0	16.23	1.785	**227.74**	**13.41**

*Difference is from the HCFC blends

8. In the HPMP, Sri Lanka used the average of actual reported 2009 consumption that is 227.74 metric tons (mt) (13.4 ODP tonnes) and 2010 forecast consumption of 250.59 mt (14.8 ODP tonnes) to estimate its baseline, as per the data in table 2 below. Based on this, the HCFC consumption baseline of Sri Lanka is estimated at 239.2 mt (14.09 ODP tonnes).

Table 2: Projected HCFC consumption in mt

	2010	**2011**	**2013**	**2014**	**2015**	**2020**	**2025**	**2030**
HCFC-22	216.51	222.30	244.33	258.28	276.12	433.23	701.17	1,138.62
HCFC-141b	20.76	22.05	25.25	25.90	26.59	30.59	35.69	42.20
HCFC blends	13.32	13.32	13.32	13.32	13.32	13.32	13.32	13.32
Total	**250.59**	**257.67**	**282.89**	**297.51**	**316.03**	**477.13**	**750.18**	**1,194.14**

Source: Projections based on industry estimates.

Servicing Sector

9. In Sri Lanka, the dominant use of HCFCs is in the servicing of refrigeration and air-conditioning equipment which is growing due to the general economic growth. There are approximately 6,500 formally-trained technicians working in the refrigeration servicing sector. In addition, there are about 5,000 to 5,500 technicians who have not received formal training but have learned the trade through experience. Under the CFC phase-out plan (NCPP), 3,700 technicians were trained through several training programmes that were implemented. In addition, there are around 26 technical colleges and vocational training institutes who annually train about 800 to 900 technicians. Typically, large refrigeration and air-conditioning installation companies and service establishments have their own training programme for technicians and are provided with servicing tools and accessories, which is not the case for small service shops.

10. HCFC-22 is currently not recovered and reclaimed in the country due to lack of recovery equipment, however, the survey showed that this would be possible if the proper equipment is provided. Currently, the same HCFC gas is recharged into the same equipment that is serviced, as reclamation of refrigerant gas is not undertaken.

11. A large percentage of the use of HCFC-22 for servicing is for domestic air-conditioning systems (94 per cent) followed by industrial refrigeration and air-conditioning (around 6 per cent) while the rest is shared between transport and commercial refrigeration. HCFC-141b use in this sector is as a solvent for metal cleaning and flushing during service operations. The table below summarizes the sectoral distribution of HCFC use in Sri Lanka.

Table 3: Summary of HCFC consumption in the servicing sector

Substance	**Type of equipment**			**Total**	
		Servicing	**Solvents**	**mt**	**ODP tonnes**
HCFC-22	Air-conditioners	194.52		194.72	
	Commercial equipment	0.88		0.88	
	Industrial refrigeration and air-conditioning equipment	11.76		11.76	
	Transport refrigeration equipment	0.75		0.75	
	Sub-total : HCFC-22	**207.91**	**-**	**207.91**	**11.44**
HCFC-141b	Metal cleaning and flushing		12.13	12.13	
	Sub-total : HCFC-141b	**-**	**12.13**	**12.13**	**1.33**
HCFC blends	Refrigeration and air-conditioning	13.32		13.32	
	Sub-total : HCFC blends	**13.32**	**-**	**13.32**	**0.59**
	Grand total in mt	**221.23**	**12.13**	**233.36**	**13.36**

Manufacturing sector

12. Sri Lanka uses HCFC-141b in the manufacture of foam for domestic refrigeration and sandwich panels for insulation. This is operated by two enterprises, Regnis and Metechno. Regnis produces rigid foam for insulation in refrigerators and Metechno produces sandwich panels. Both use HCFC-141b pre-blended polyols that are imported. The current HPMP proposes to phase out the use of 4.10 mt of HCFC-141b in pre-blended polyol in Regnis only. The total consumption of HCFCs in the manufacturing sector is very small as compared to HCFC consumption in the servicing sector. However, Regnis is the only manufacturer of domestic refrigerators in the country, therefore its conversion is a necessary and integral part of Sri Lanka's HPMP.

Table 4: Summary of HCFC consumption in the manufacturing sector

Substance	Type of equipment	Manufacturing	
		ODP tonnes	Metric tons
HCFC-22	Air-conditioners	0.12	2.20
	Industrial refrigeration and air-conditioning equipment	0.07	1.40
	Sub-total : HCFC-22	**0.19**	**3.60**
HCFC-141b	Foam applications	0.83	7.50
	Sub-total : HCFC-141b	**0.83**	**7.50**
	Grand total in mt	**1.02**	**11.10**

Other Sectors

13. The HPMP also identified other sectors that use HCFCs, namely for assembly and installation of refrigeration equipment and for solvents. In Sri Lanka, HCFC-22 based second hand unitary equipment is also imported by 5 importers. The estimated imports of such equipment is about 2,100 units in 2009, mainly from Singapore, Republic of Korea and Dubai. This equipment is assembled in the country and sold to local domestic consumers and small commercial establishments, including households, hospitals, commercial office buildings, hotels, shopping centres etc. Depending upon the size of these centres, the capacities of unitary air-conditioners procured by these centres vary.

14. In addition, HCFC-22 based industrial air-conditioning equipment is widely used for processing/cooling/chilling and freezing applications in the food, chemical and pharmaceutical industries. Equipment primarily based on Ammonia and other absorption refrigeration systems, as well as R-410A, R-134a is also in use. Equipment is installed by local companies, which undertake contracts for installation and commissioning chillers. The survey has identified around 35 companies that install such equipment, with most of the companies operating for an average of 10-15 years. The HPMP mentions that there are likely to be additional small companies in the informal sector who operate intermittently.

HCFC phase-out strategy and costs

15. The Government of Sri Lanka is proposing a single stage approach to achieve the complete phase-out of HCFCs by 2025, with a service tail of 2.5 per cent of the baseline annually until 2030. It proposes to prioritise phase-out of HCFC use in foam manufacturing and assembly of domestic air-conditioners, hand in hand with the servicing sector. The implementation plan includes measures which are a combination of (a) project initiatives, (b) regulations and fiscal instruments to the extent feasible, (c) training and capacity building, and (d) awareness and information outreach. Fast track adoption of alternatives including capacity building for industry and reducing dependence on new HCFC based equipment are important interventions in the phase-out plan. The phase-out plan is presented in the table below.

Table 5: Sri Lanka HCFC phase-out schedule

Schedule	Montreal Protocol Targets	Sri Lanka Reduction Target
Average 2009-10	Baseline level	Baseline level
January 1, 2013	Freeze at baseline	Freeze at baseline
January 1, 2015	10% below baseline	10% below baseline
January 1, 2020	35% below baseline	35% below baseline
January 1, 2025	67.5% below baseline	97.5 % phase-out with allowance of 2.5% annual average for

Schedule	Montreal Protocol Targets	Sri Lanka Reduction Target
		service consumption till 1 January 2030
January 1, 2030	97.5 % phase-out with allowance of 2.5% annual average for service consumption	100% phase-out
January 1, 2040	100% phase-out	-

16. In order to meet this accelerated phase-out schedule, the Government proposes to introduce HCFC import quotas beginning 2013 in line with its overall compliance targets. The quota system is envisaged to allow importation of only HCFC-141b and other HCFC blends during the first 5 years after which only HCFC-22 would be the only HCFC available for imports. The project initiatives foreseen include, as outlined below, those for the servicing sector, and the phase-out of HCFC-141b in the manufacturing sector through an investment project. The HPMP also includes technical assistance activities for the solvent sector which uses HCFC-141b for flushing in the assembly and installation sub-sector.

Servicing sector

17. The activities in the servicing sector foresee the continued training of technicians in good practice, with the objective of strictly enforcing a technician registration and certification programme. The training requirements envision a one-off and targeted training on elimination of HCFC-141b use as a cleaning agent. It will promote the improvement of servicing efficiency using HCFC-22, and the recovery, recycling and reclamation of refrigerants.

18. In addition to the training of technicians, a recovery and reclamation initiative will be implemented to reduce and prevent emissions during servicing and maintenance. A retrofit project to replace HCFC-based equipment with ODS-free climate friendly alternatives would also be undertaken, with the main objective of demonstrating retrofit options and disseminating the results on HCFC free climate friendly alternatives under local conditions. This will be closely implemented with the recovery and reuse programme so that the adoption of climate friendly ODS-free alternatives, and reducing dependence on HCFC-based equipment is demonstrated and promoted.

19. Activities related to customs training will also be implemented in order to ensure that the strengthened HCFC legislation can be implemented and enforced very strictly. The component will also enhance the capacity of customs and other law enforcement officers on monitoring, control and identification of HCFCs and HCFCs containing equipment. It will further strengthen the capacity of the trainers and customs training schools through the provision of necessary training materials and identification tool kits.

Manufacturing sector

20. The submitted HPMP identified two companies, which are using HCFC-141b in the manufacture of foam for domestic refrigeration and discontinuous sandwich panels for insulation. Both companies were established prior to 2007. Only one company, Regnis Lanka Plc, which uses HCFC in the manufacture of domestic refrigerators, is being submitted for conversion under this HPMP as it has a 47 per cent local ownership share. The other company, Metroof (P) Ltd is 100 per cent owned by an Italian conglomerate and will phase out HCFC use on its own in the next two years.

21. Regnis was one of the three enterprises that was provided assistance under the CFC phase-out for the conversion of its CFC-11 use in domestic refrigerators to cyclopentane at the 17th Meeting. The HPMP foresees the conversion of an HCFC-141b line in the company, which was purchased from another

manufacturer who had closed down operations in 1998 after the conversion was completed. This current line has a consumption of 4.1 mt of HCFC-141b in pre-blended polyols, and has an annual production capacity of 12,000 units per annum of 220-liter capacity refrigerators, freezers and water coolers.

22. The original investment project proposal looked at the conversion of this line also to cyclopentane, as the other line is already based on this technology. It included data providing average production and information about the HCFC-22 consumption of the enterprise from 2004 until 2009. The project proposal also includes a detailed description of the different products and their levels of production. The cost calculation was provided with a total cost originally requested of US $237,560 to phase out an annual consumption of 4.1 mt (0.45 ODP tonnes).

Cost of the HPMP

23. The total overall cost of the HPMP for Sri Lanka has been estimated at US $2,812,560 to achieve the complete phase-out of 239.2 mt (14.09 ODP tonnes) of HCFCs by 2025, with a 2.5 per cent annual service tail until 2030 as summarized in table 6 below.

Table 6: Total cost of the HPMP for Sri Lanka (US $)

Activity	**UNEP**	**UNDP**	**Total**	**Time frame**
Investment project and management				
Conversion of foam manufacturing enterprise		237,560		2011-13
Technical assistance				
Technical assistance for importers assembling domestic air-conditioners		80,000		2011-16
Technical assistance for enterprises installing industrial RAC equipment		190,000		2011-16
Technical assistance for HCFC-141b phase-out in solvents		40,000		2011-16
Sub-total		**547,560**	**547,560**	**2011-16**
Service sector and regulations				
Regulations development		25,000		2011-12
Awareness and communication	272,500			2011-17
Customs training	287,000			2011-15
Service training	436,500			2011-17
Recovery & reclamation program		610,000		2011-16
Retrofit incentive program		225,000		2011-16
Project Management for implementation		409,000		2011-25
Sub-total	**996,000**	**1,269,000**	**2,265,000**	**2011-25**
Grand total	**996,000**	**1,816,560**	**2,812,560**	**2011-2025**

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

24. The Secretariat reviewed the HPMP for Sri Lanka in the context of the guidelines for the preparation of HPMPs (decision 54/39), and the criteria for funding HCFC phase-out in the consumption sector agreed at the 60th Meeting (decision 60/44). It also reviewed the investment project submitted by Sri Lanka for the phase-out of HCFCs used in the manufacturing of domestic refrigerators. The HPMP is designed to phase out HCFCs under an accelerated schedule, with complete phase-out in 2025.

Issues related to HCFC consumption and starting point for aggregate reduction in HCFC consumption and HCFC baseline

25. The Secretariat sought clarification from UNDP on the projected HCFC consumption in the country (Table 2) and the assumptions used to determine the growth rates between years which are different. The agency indicated that the growth rates in different end-use applications are based on what is overall expected in the respective sectors/sub-sectors, which had been assessed using industry inputs provided during the survey and general economic trends. Based on this, the 2010 consumption was estimated and used to calculate an estimated baseline for the period. The baseline calculated was (239.2 mt) 14.09 ODP tonnes.

Servicing sector

26. Issues related to the ODS regulation in place, and the establishment of quotas for HCFCs and HCFC-based equipment were satisfactorily addressed. UNDP reported that quotas should be in place by 2013. In response to a query on the need for a component on policy and regulation in the HPMP when this should have already been done during the HPMP preparation, UNDP responded that other than the quota system which will include restrictions on importing HCFC-based equipment, the government needs to adopt a policy restricting establishment of new capacity for manufacturing with HCFC. This will have to be done during the implementation, and could not be put in place during preparation. It also indicated that the country needs support to ensure that these new policies and regulations are enforced and implemented, which will also be covered by this component.

27. The Secretariat also noted that there were new elements included in this HPMP, which are linked to the servicing sector yet are being requested for funding in addition to the amount the country is eligible for (i.e. technical assistance for the refrigeration sector for installation and assembly, as well as for the solvent sector). The Secretariat indicated to UNDP that these applications could be integrated into the workshops for service technicians and no further assistance should be provided separately. It also mentioned that there are no guidelines for including such new elements under decision 60/44. On these three technical assistance activities, UNDP responded that the installation and assembly sub-sector is an eligible cost under decision 31/45 and is being included as such. It also indicated that there is no direct link to the service sector for these activities and does not agree that they should be included in the activities covered already. After further discussion, the Secretariat informed both UNEP and UNDP that, based on technical considerations, it may be possible to consider funding for the assembly and installation sub-sector once the issue is considered by the Executive Committee as part of the document "Overview of issues identified during project review" (UNEP/OzL.Pro/ExCom/62/10) submitted to this meeting. This component currently cannot be recommended for approval pending a decision from the Executive Committee. Following further discussion, UNDP adjusted the requested funds for this component from US $80,000 to US $49,000. However, the Secretariat had indicated to UNDP that the technical assistance for the solvent sector cannot be recommended and should be covered as a topic in the workshops for refrigeration technicians.

28. In discussing the total cost of the initial HPMP submission with UNDP and UNEP, the Secretariat emphasized that at its 60th Meeting the Executive Committee, in decision 60/44, had set the funding levels for countries with an HCFC consumption of 360 mt (19.8 ODP tonnes) or less in the refrigeration servicing sector only. Concern was expressed on the total cost of the HPMP as submitted, and on the proposal to accelerate interim reductions vis-à-vis the ability of the country to meet more stringent control measures. In line with the country's consumption, Sri Lanka would be eligible under this decision for up to a maximum funding of US $560,000 to comply with the 2020 reduction. Based on the calculations of the Secretariat presented in Annex II of document UNEP/OzL.Pro/ExCom/60/46 "Further analysis of HCFC phase-out in the refrigeration servicing sector", Sri Lanka may be entitled for up to a maximum funding level of US $1,600,000 if the Executive Committee agrees to a one time funding as proposed, and to an accelerated phase-out. UNDP explained that the additional twenty per cent requested by the country on top of the possible eligible funding for a total phase-out was required by the country as there would be additional activities to enforce the accelerated phase-out proposal as compared to the current phase-out schedule. The Secretariat maintained that there are no guidelines for including additional funds beyond what is provided under decision 60/44 for accelerated phase-out in a country and therefore the additional amount cannot be recommended.

Table 7: Revised level of funding for the servicing sector in the HPMP for Sri Lanka* (US $)

Activity	**UNEP**	**UNDP**	**Total**	**Time frame**
Technical assistance				
Technical assistance for importers assembling domestic air-conditioners		49,000*		2011-16
Technical assistance for enterprises installing industrial RAC equipment		20,000*		2011-16
Technical assistance for HCFC-141b phase-out in solvents		20,000**		2011-16
Sub-total		**89,000***	**89,000**	**2011-16**
Service sector and regulations				
Regulations development		25,000		2011-12
Awareness and communication	190,000			2011-17
Customs training	198,000			2011-15
Service training	302,000			2011-17
Recovery & reclamation program		428,000		2011-16
Retrofit incentive program		137,000		2011-16
Project Management for implementation		320,000		2011-25
Sub-total	**690,000**	**910,000**	**1,600,000*** **	**2011-25**
Grand total	**690,000**	**999,000**	**1,689,000**	**2011-2025**

*pending discussion under Agenda item 7(a) – Overview of issues identified during project review
**not recommended
***recommended for the servicing sector

Manufacturing sector

29. The Secretariat reviewed the proposal for the conversion of Regnis. Based on this review the Secretariat advised UNDP that the cost for converting to cyclopentane for an enterprise with consumption below 30 tonnes would require counterpart funding ranging from 50 to 90 per cent which might be economically difficult for the country. The Secretariat also advised UNDP regarding the

cost-effectiveness threshold applicable for this particular conversion, which stands at US $7.83/kg HCFC with a possible 25 per cent increase of that threshold, as provided under decision 60/44. The Secretariat further advised UNDP that the 25 per cent will be applicable in the case of the use of cyclopentane or any other low-GWP alternative.

30. The Secretariat also discussed the project with UNDP in the context of decision 61/47 on HCFC-141b contained in pre-blended polyols used by the enterprise. It noted that Sri Lanka had reported the HCFC-141b in pre-blended polyols under Article 7, and further noted that, as submitted, the project is eligible for funding under the existing guidelines. It also noted that in the overall HPMP, Sri Lanka commits to put in place regulations or policies banning the import and or the use of HCFC-141b pre-blended polyol systems, by the time this enterprise had been converted to a non-HCFC technology.

31. Following these discussions, UNDP revised the proposal and came with two technology options that could be used by the enterprise. These are cyclopentane and methyl formate. The Secretariat raised some technical issues related to the limitation of the use of methyl formate in domestic refrigeration which UNDP had responded to satisfactorily, supported by a technical review of both alternatives.

32. The issue of funding eligibility was discussed in detail. UNDP indicated that following paragraph 29 above, it understands that the total funding that the enterprise would be eligible for is no more than US $40,128. The Secretariat indicated that if the factor for non-A5 ownership (47 per cent local ownership) was to be applied, the net eligible funding would be for US$ 18,860. UNDP advised that the enterprise had been briefed on Multilateral Fund eligibility and funding criteria and, accordingly, the requirement for counterpart funding. It mentioned that the enterprise is financially sound and could cover the difference required in the investments either by retrofitting existing equipment, and will decide whether to invest in completely new equipment and when. The enterprise carefully considered all options and has made a commitment that with this grant funding, it would phase out the use of HCFC-141b. The Secretariat and UNDP agreed on the final amount of US $18,866 plus support costs for the investment project.

Revised costs of the HPMP

33. Following the discussion on the activities for both servicing and manufacturing sectors, the Secretariat and UNDP agreed on the revised funding for the HPMP summarized in table 8 below.

Table 8: Revised total cost of HPMP

	UNDP	UNEP	Total
Servicing	910,000	690,000	1,600,000
Investment	18,860		18,860
Total	928,860	690,000	1,618,860

Other general issues

34. The Secretariat raised concerns on the proposed plan of the country to accelerate phase-out by 10 years earlier than the Montreal Protocol schedule, its capacity to meet these strict deadlines, and the overall national commitment and framework to support this plan. It further indicated to UNDP that unlike the one case where accelerated phase-out approved by the Executive Committee was supported by a firm vision of carbon neutrality and therefore had a strong argument for phasing out HCFCs faster, this does not seem to be the case for Sri Lanka. From its submission, the Secretariat observed that while there is an intention to accelerate, the reasons for doing so are based more on ensuring advanced funding commitments rather than a fully supported national programme. UNDP indicated that this was the country's proposal, and that it has indicated in writing that it commits itself to meeting the accelerated phase-out deadlines set out in the plan.

Impact on the climate

35. The technical assistance activities in the HPMP addressing the servicing sector, supported by the introduction of better service practices (through training of refrigeration technicians), will reduce the current amount of HCFC-22 used in the servicing sector (each kg of HCFC-22 not emitted due to better refrigeration practices, results in about 1.8 CO_2-equivalent tonnes saved). Additional CO_2-equivalent tonnes could be avoided through retrofitting HCFC-22 based equipment to HFC-407C refrigerant, which represents the most technically viable option currently available (i.e., each kg of HCFC-22 retrofitted to HFC-407C results in about 0.11 CO_2-equivalent tonnes saved). If 10 per cent of the current service need of 207.91 mt of HCFC-22 (see table 3) is replaced with HFC-407C, the potential CO_2 equivalent saved could be 2,287 tonnes.

36. It is important to note that these reductions are associated with the activities being proposed in the HPMP (which are known). However, it does not take into consideration the new non-HCFC-based equipment that could be imported into the country (which is not known). In general, it can be assumed that the new refrigeration systems have been designed using more up-to-date technology (i.e., lower refrigerant charge, more robust construction, and stricter brazing procedures) than those being replaced, substantially reducing leakage rates and servicing needs.

37. In calculating the potential climate impact of the conversion of the domestic refrigeration enterprise, phasing out 4.1 mt of HCFC-141b would result in a potential savings of 2,923.3 tons CO_2 equivalent.

Adjusted 2010-2014 business plans

38. UNDP and UNEP are requesting US $1,618,860 plus support costs for meeting the 35 per cent reduction in HCFCs by 2020. The total value requested for the period 2010-2014 of US $1,493,780 including support cost is above the total amount in the adjusted business plan. The difference in the figures is because the HCFC baseline for compliance estimated for the business plan was based on the 2008 (latest reported) consumption data (179.96 mt) while that in the HPMP was based on the submitted estimated baseline using the average of actual reported 2009 consumption and estimated 2010 consumption. In addition, UNDP and UNEP have requested funding for the total HCFC phase-out as compared to meeting the 35 per cent reduction allocated in the business plan. Based on the estimated baseline for Sri Lanka of 239.2 mt (14.09 ODP tonnes), the country's allocation up to the 2020 phase-out should be US $560,000 in line with decision 60/44 plus funding for the investment project for which it is eligible.

Draft agreement

39. A draft agreement between the Government of Sri Lanka and the Executive Committee for phase-out of consumption of HCFCs is contained in Annex I to the present document. The agreement includes both components of the servicing and manufacturing sector.

RECOMMENDATION

40. The HPMP for Sri Lanka is submitted for individual consideration. The Executive Committee may wish to consider:

(a) Noting with appreciation the submission of the HCFC phase-out management plan (HPMP) for Sri Lanka to achieve the complete phase-out of HCFCs at an estimated total cost of US $1,618,860 (excluding agency support costs) on the understanding that:

(i) US $1,600,000 is for the full phase-out in the servicing sector and based on the discussion in Agenda item 7(a) “Overview of issues identified during project review”;

(ii) US $18,860 is for the investment project for the phase-out of 4.10 metric tons of HCFC-141b domestic refrigeration manufacturing sector and based on the discussion in agenda item 7(a) “Overview of issues identified during project review”;

(iii) No more funds will be available for HCFC phase-out in the country after 2025;

(b) Noting that the Government of Sri Lanka agreed to establish as its starting point for sustained aggregate reductions in HCFC consumption the estimated baseline of 239.2 metric tons calculated using actual consumption reported for 2009 and estimated 2010 consumption;

(c) Whether to approve, in principle, the HPMP for Sri Lanka for the period 2010-2025, at the amount of US $928,860 plus agency support costs of US $69,665 for UNDP and US $690,000 plus agency support costs of US $89,700 for UNEP;

(d) Whether to approve the Agreement between the Government of Sri Lanka and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to the present document;

(e) Requesting the Secretariat, once the baseline data is known, to update Appendix 2-A to the Agreement to include the figures for the maximum allowable consumption, to notify the Executive Committee of the resulting levels of maximum allowable consumption and of a potential related impact on the eligible funding level with any adjustments needed being made at the submission of the next tranche;

(f) Whether to approve the first implementation plan for 2011-2014, and the first tranche of the HPMP for Sri Lanka at the amount of US $450,000 plus agency support costs of US $33,750 for UNDP and US $345,000 plus agency support costs of US $44,850 for UNEP; and

(g) Whether or not to fund the technical assistance activities for the refrigeration and air conditioning assembly sub-sector outside decision 60/44 based on the discussion under agenda item 7(a) “Overview of issues indentified during project review”.

Annex I

DRAFT AGREEMENT BETWEEN SRI LANKA 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 Sri Lanka (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 zero ODP tonnes from 1 January 2030, 10 years prior to control limits for the substances under the 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.

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 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, except if the Executive Committee decided that such verification would not be required;

(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 fulfil the obligations under this Agreement. UNDP has agreed to be the lead implementing agency (the "Lead IA") and UNEP 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 tones)
HCFC-22 and blends	C	I	11.87
HCFC-141b	C	I	2.22
Total			14.09

APPENDIX 2-A: THE TARGETS, AND FUNDING

		2010	2011	2012	2013	2014	2015	2016-2019	2020	2021-2024	2025	2026-2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	n/a	14.09	14.09	12.68	12.68	9.16	9.16	4.58	4.58	0.35	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	n/a	n/a	14.09	14.09	12.68	12.68	9.16	9.16	0.35	0.35	0	n/a
2.1	Lead IA [UNDP] agreed funding	450,000				250,000		130,000		49,000		49,860		928,860
2.2	Support costs for Lead IA	33,750				18,750		9,750		3,675		3,740		69,665
2.3	Cooperating IA [UNEP] agreed funding	345,000				311,000		34,000						690,000
2.4	Support costs for Cooperating IA	44,850				40,430		4,420						89,700
3.1	Total agreed funding	795,000				561,000		164,000		49,000		49,860		1,618,860
3.2	Total support cost	78,600				59,180		14,170		3,675		3,740		159,860
3.3	Total agreed costs	873,600				620,180		178,170		52,675		53,600		1,778,225
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)													11.87
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)													0.0
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)													0.0
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this agreement (ODP tonnes)													2.22
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)													0.0
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)													0.0

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 not decided otherwise 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. 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. 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; and

(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 $2,500 per metric tons 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.
