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

PROJECT PROPOSAL: CROATIA

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

Phase-out

- HCFC phase-out management plan (phase I, first tranche)

UNIDO

*Re-issued for technical reasons.

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

COUNTRY: REPUBLIC OF CROATIA

PROJECT TITLE: HCFC Phase-out Management Plan (HPMP)

IMPLEMENTING AGENCY: UNIDO/Italy

NATIONAL CO-ORDINATING AGENCY: Ministry of Environmental Protection, Physical Planning and Construction (MEPPPC)

LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT

A. ARTICLE-7 DATA 2008 AS OF MAY 2010

Annex C, Group I:	7.51
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B: COUNTRY PROGRAMME SECTORAL DATA 2009 AS OF MAY 2010

Substance	Consumption by sector (ODP tonnes)					
	Foam	Ref. manu.	Ref. serv.	Solvent	Other	Total
HCFC-22			4.7			4.7
HCFC-141b						0.0
HCFC-142b						0.0
Total	0.0		4.7			4.7
CONSUMPTION DATA (ODP tonnes)						
2009-2010 baseline:	To be determined	Starting point for sustained aggregate reductions:				2008
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)						
Already approved:	3.71		Remaining:		3.8	
CURRENT YEAR BUSINESS PLAN:						
Total funding (US \$):	60.953		Total phase-out (ODP tonnes):		0.7	

THE TARGETS AND FUNDING

Total cost of the HPMP as originally submitted (US\$)								2,045,000
	2009	2010	2011	2012	2013	2014	2015	Total
Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	n/a	n/a	n/a	Baseline	Baseline	90% of baseline	n/a
Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	6.6	6.6	6.6	6.6	4.0	3.0	2.0	n/a
Lead IA [UNIDO] agreed funding (US \$)	271,150*	180,000	0	320,000	220,000	80,000	0	1,071,150
Support costs for Lead IA (US \$)	20,336*	13,500	0	24,000	16,500	6,000	0	80,336
Cooperating IA [Italy] agreed funding (US \$)	0	210,000**	0	0	0	0	0	210,000
Support costs for Cooperating IA (US \$)	0	27,300**	0	0	0	0	0	27,300
Total agreed funding (US \$)***	271,150	390,000	0	320,000	220,000	80,000		1,281,150
Total support cost	20,336	40,800	0	24,000	16,500	6,000	0	107,636
Total agreed costs (US \$)	291,486	430,800	0	344,000	236,500	86,000	0	1,388,786
Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)								4.27
Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)								0.00
Remaining eligible consumption for HCFC-22 (ODP tonnes)								0.00
Total phase-out of HCFC-141b agreed to be achieved under this agreement (ODP tonnes)								0.00
Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)								3.71
Remaining eligible consumption for HCFCs (ODP tonnes)								0.00

(*) Funded at the 59th Meeting of the Executive Committee.

(**) Funded at the 60th Meeting of the Executive Committee.

(***) Of this amount, US \$800,000 is associated with the phase-out of HCFCs in the refrigeration servicing sector.

FUNDING REQUEST: Approval of funding for the first tranche (2010-2011) as indicated above.

SECRETARIAT'S RECOMMENDATION:	For individual consideration
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PROJECT DESCRIPTION

1. On behalf of the Government of Croatia, UNIDO, as the lead implementing agency, has submitted to the 61st Meeting of the Executive Committee an HCFC phase-out management plan (HPMP) at a total cost of US \$2,045,000 plus agency support costs of US \$153,375, as originally submitted. This amount does not include US \$481,150 and agency support costs of US\$20,336 for UNIDO and US \$27,300 for Italy, already approved for the complete phase-out of HCFC-141b used in the manufacturing sector. The Government of Croatia is requesting at the 61st Meeting the approval of US \$360,000 plus agency support costs of US \$27,000 for UNIDO for the implementation of phase 1 of the HPMP. The Government of Croatia is proposing to completely phase out its HCFC consumption by 1 January 2016.

Background

ODS regulations

2. The Government of Croatia introduced ODS regulations on 14 January 1999, which, *inter alia*, controlled import and export of all controlled substances including HCFCs (quotas for HCFC were issued in November 2008). The need to harmonize the Croatian legislation with the European Union regulation led to the introduction of revised ODS regulations in October 2005. According to the revised ODS regulations in Croatia, as of 1 January 2006 consumption of CFCs, halons, CTC, TCA, and methyl bromide (MB) is banned, and as of 1 January 2016 consumption of HCFCs is banned. The maximum allowable level of consumption of HCFCs is 120 metric tonnes from 1 January 2009 until the accession of Croatia to the European Union¹ (EU) or 1 January 2016; after that date consumption should be zero.

HCFC consumption

3. The collection of HCFC consumption data was conducted through direct contact with major stakeholders (i.e., customs administration, importers, exporters, distributors of refrigeration equipment, refrigeration service workshops, and end-users). Table 1 shows the 2000-2008 level of HCFC consumption in Croatia.

Table 1. HCFC level of consumption in Croatia

HCFC	2000	2001	2002	2003	2004	2005	2006	2007	2008
Metric tonnes									
HCFC-22	112.4	126.1	64.6	36.0	122.4	164.4	(55.8)	76.1	77.8
HCFC-141b	1.9	56.5	9.2		8.9	12.2	23.0	31.5	28.0
HCFC-142b									2.2
Total (metric)	114.3	182.6	73.8	36.0	131.3	176.6	(32.8)	107.6	108.0
ODP tonnes									
HCFC-22	6.2	6.9	3.6	2.0	6.7	9.0	(3.1)	4.2	4.3
HCFC-141b	0.2	6.2	1.0	-	1.0	1.3	2.5	3.5	3.1
HCFC-142b	-	-	-	-	-	-	-	-	0.1
Total (ODP)	6.4	13.1	4.6	2.0	7.7	10.3	(0.6)	7.7	7.5

4. The reasons for a sharp increase in the consumption of HCFC-22 in 2004 and 2005 and a sudden decrease in 2006 were stockpiling by importers and distributors resulting from the introduction of an environmental tax on refrigerants, and an increase in the demand for (easy-to-install) split

¹ The Parliament of Croatia adopted the resolution on Croatia's integration into the EU on 18 December 2002. Croatia applied for membership to the European Union on 21 February 2003; the European Council assigned to Croatia the status of an EU candidate country on 18 June 2004; and the EU accession negotiations started on 3 October 2005.

air-conditioning units. Since then, consumption of HCFC-22 has dropped, as the import of HCFC-22-based equipment was banned in 2006. The alternative refrigerants being used are R-404A in the refrigeration sector, R-407C and R-410A in the air-conditioning sector, and R-600 (isobutane) in domestic refrigerators.

Sectoral distribution of HCFCs

5. HCFCs are mainly used in the refrigeration and air-conditioning servicing sector (representing 67 per cent of the total HCFC consumption in metric tonnes or 57 per cent in ODP tonnes), and in the foam sector, where HCFC-141b is used by two enterprises for the production of rigid and integral skin polyurethane foams. Funding for their conversion to non HCFC-technologies was approved at the 59th and 60th Meetings of the Executive Committee.

6. Almost 60 per cent of the total installed amount of HCFC-22 is in split and unitary air-conditioning equipment, while the amounts in chillers and commercial and industrial refrigeration systems account for over 25 per cent of the installed amounts (Table 2).

Table 2. Distribution of HCFC-22 in refrigeration systems

Refrigeration equipment	Charge (tonnes)		Leakage rate/year	Consumption (tonnes/year)	
	metric	ODP		metric	ODP
Split/unitary air-conditioning units	238.0	13.1	15%	35.7	2.0
Chillers	68.0	3.7	25%	17.0	0.9
Commercial and industrial	77.5	4.3	25%	19.4	1.1
Transport	24.0	1.3	35%	8.4	0.5
Total	407.5	22.4		80.5	4.5

7. There are approximately 1,600 certified refrigeration service workshops in operation. Training of technicians who handle refrigerants (ODS and non-ODS), and repair, maintain and, when feasible, retrofit refrigeration equipment is carried out according to the training programme established through the Refrigeration Management Plan (RMP) and Terminal Phase-out Management Plan (TPMP) projects, which has been modified to meet the current standards and trends of the service industry. Currently, some 2,400 technicians have been trained and certified.

8. The rate of introduction of natural refrigerants (hydrocarbons, CO₂ and ammonia) is currently low. Hydrocarbon-based refrigerants are used only in domestic refrigerators, while ammonia is primarily used in large-scale applications (breweries, dairies, frozen product industry, meat processing). Several of the new refrigeration systems that should have been designed with ammonia are being designed and installed with HFC-based refrigerants due to the higher capital costs of ammonia systems (more than 30 per cent higher than HFC-systems). Furthermore, some of the existing ammonia-based refrigeration systems have been converted to HFC, mostly due to higher operational and maintenance requirements for ammonia systems.

HCFC phase-out strategy and costs

9. Although the ODS regulations in place control ODS (including HCFCs) phase-out and HFCs, they would need to be amended to reflect HCFC phase-out by 1 January 2015, to which the Government has committed. Since HCFC consumption in the refrigeration and air-conditioning sector represents almost 75 per cent of the total consumption (measured in metric tonnes), similar activities implemented under the CFC phase-out process would need to be implemented, using the infrastructure, logistics and distribution channels already established.

10. Activities to reduce emissions of HCFC-22 and HFC-based refrigerants will be implemented (improved commissioning and maintenance practices, leak detection, recovery/recycling, and monitoring), and regulated. Training and certification programmes for service technicians will be

provided and the curricula of vocational schools will be strengthened. Customs officers will also be trained.

11. Considering the accelerated phase-out schedule proposed by the Government of Croatia, it is proposed to replace HCFC-22 with HFC-based refrigerants. As these refrigerants have a significant global warming potential (GWP), this approach is proposed on a temporary basis, with the intent of applying the ODS regulations to HFCs and raising the standards of the refrigeration and air-conditioning service sector to those of the EU.

12. The total cost of the HPMP for Croatia is US \$2,045,000, with the breakdown shown in Table 3.

Table 3. Total cost of the HPMP for Croatia (US \$)

Activity	2010	2011	2012	2013	2014	2015	Total
Improve the legislative framework:	20,000	15,000	5,000	5,000	5,000	5,000	55,000
Technicians training	80,000	70,000	65,000	30,000	-	-	245,000
Improve the RRR scheme	30,000	30,000	5,000	5,000	5,000	5,000	80,000
Re-usable cylinder project	-	110,000	70,000	30,000	15,000	-	225,000
Retrofit project and demonstration of new technologies	60,000	90,000	130,000	50,000	30,000	20,000	380,000
Chiller replacement projects	-	150,000	150,000	5,000	-	-	305,000
Customs officers training	60,000	40,000	20,000	-	-	-	120,000
Support to vocational schools	15,000	50,000	50,000	20,000	-	-	135,000
Strengthening the waste disposal infrastructure	50,000	95,000	75,000	40,000	-	-	260,000
Awareness raising	25,000	25,000	20,000	20,000	10,000	5,000	105,000
Establishment of the refrigeration association	5,000	25,000	10,000	10,000	5,000	5,000	60,000
Project coordination and monitoring	15,000	20,000	20,000	10,000	5,000	5,000	75,000
Total	360,000	720,000	620,000	225,000	75,000	45,000	2,045,000

Impact on the climate

13. To meet the reduction levels on HCFCs consumption proposed by the Government of Croatia, in the near future (up to 2016) HCFC-22-based equipment would be retrofitted or replaced, mainly by HFC-based equipment and, to a lesser extent (5 to 6 per cent), by other refrigerants such as ammonia, hydrocarbon-based refrigerants and CO₂.

14. A preliminary calculation of the potential impact on the climate has been made for the total HCFC-22 contained in refrigeration equipment (144.2 metric tonnes) that would be replaced with HFC refrigerants (41.3 metric tonnes of R-410A, 36.4 metric tonnes of R-407C, 16.5 metric tonnes of R-404A, 21.5 metric tonnes of HFC-134a, and 8.2 metric tonnes of CO₂/ammonia) between 2010 and 2016, without considering the leakage rates of refrigerants over a period of time. It is also to be noted that the charge of HFC refrigerant used for replacing HCFC-22 in existing equipment is 15 to 20 per cent lower. In addition, new HFC systems (for same cooling load) contain approximately 15 per cent less refrigerant than the old HCFC-22 systems. Accordingly, the potential impact on the climate is calculated on the basis of the GWP value of each refrigerant and considering 15 per cent less charge of HFCs as compared to the charge in HCFC-22 based systems (Table 4).

Table 4. Potential impact on the climate

Parameter	HCFC-22	R-410A	R-407C	R-404A	HFC-134a	CO ₂ /ammonia	Total CO ₂ -eq (tonnes/yr)
Refrigerant charge (tonnes)	144.2	41.3	36.4	16.5	21.5	8.2	
GWP	1,780	1,890	1,600	3,800	1,300	0.5	
CO ₂ -eq analysis (tonnes/year)							
CO ₂ -eq HCFC-22	256,676						256,676
CO ₂ -eq HFC		78,057	58,240	62,700	27,950	4	226,951
Impact CO ₂ -eq							(29,725)

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

15. The Secretariat reviewed the HPMP for Croatia in the context of the guidelines for the preparation of HPMPs (decision 54/39), the two projects for the complete phase-out of 3.71 ODP tonnes (33.7 metric tonnes) of HCFC-141b used as a foam blowing agent approved by the Executive Committee at its 59th and 60th Meetings (at total approved funding of US \$481,150), the decision allowing for consideration (on a case-by-case basis) of HPMPs for LVC countries that had a strong national level of commitment in place to support accelerated phase-out (decision 60/15), and the criteria for funding HCFC phase-out in the consumption sector agreed at the 60th Meeting (decision 60/44).

16. The HPMP is submitted as an overall plan for the complete phase-out of HCFCs in Croatia according to an accelerated schedule (i.e., complete phase-out by 1 January 2016).

Starting point for aggregate reduction in HCFC consumption and HCFC baseline

17. In the context of the HCFC foam project submitted to the 60th Meeting, the Government of Croatia agreed to establish the level of 7.5 ODP tonnes as its starting point for sustained aggregate reduction in HCFC consumption, representing the level of consumption reported under Article 7 of the Protocol in 2008 (decision 60/31(b)). The HCFC baseline for compliance has been estimated at 6.6 ODP tonnes.

Technical and cost issues

18. Issues related to the ODS regulation in place, the establishment of quotas for HCFCs, and HCFC-141b imports allowed until the end of 2008 were satisfactorily addressed. UNIDO reported that quotas have already been issued for HCFCs; even if Croatia does not join the EU by 2013, HCFCs will be completely phased out by 1 January 2016. In light of the import ban on HCFC-141b, the two foam manufacturing companies had stockpiled this substance from previous years, enabling them to continue production.

19. UNIDO also explained that although service technicians are trained and certified (with more than 1,600 certified workshops in the country), the annual leakage rate of HCFC-based refrigeration equipment (between 15 and 25 per cent) was high mainly due to the fact that refrigeration equipment maintenance and repairs are not carried out on a regular basis but only when the equipment fails, often leading to system ruptures.

20. The overall cost of the HPMP for Croatia was discussed and agreed, as shown in Table 5, taking into consideration the following elements:

- (a) The remaining consumption eligible for funding is 3.79 ODP tonnes (or 68.9 metric tonnes of HCFC-22), after deducting the HCFC consumption of 3.71 ODP tonnes associated with the two foam projects approved by the Executive Committee;

- (b) The maximum level of funding for the complete phase-out of HCFCs for a country with a consumption level of between 40 and 80 metric tonnes is US \$800,000;
- (c) The request for the introduction of re-usable cylinders is not eligible given that the issue of disposable cylinders is relevant to all types of refrigerants;
- (d) The strengthening of the waste disposal infrastructure is not eligible. At its 60th Meeting, the Executive Committee decided not to approve a similar request included in the HPMP for the former Yugoslav Republic of Macedonia, but allowed requests for disposal of ODS in future submission requests for HPMP funding.

Table 5. Agreed level of funding for the HPMP for Croatia* (US \$)

Activity	2010	2011	2012	2013	2014	Total
Improve the legislative framework:	10,000		5,000		5,000	20,000
Technicians training	30,000		30,000	20,000		80,000
Improve the RRR scheme	20,000					20,000
Retrofit project and demonstration of new technologies	20,000		90,000	100,000	20,000	230,000
Chiller replacement projects	10,000		120,000	35,000	30,000	195,000
Customs officers training	40,000		25,000	20,000		85,000
Support to vocational schools	30,000		30,000	25,000	10,000	95,000
Awareness raising	10,000		10,000	10,000	10,000	40,000
Project coordination and monitoring	10,000		10,000	10,000	5,000	35,000
Total	180,000		320,000	220,000	80,000	800,000

(*) Excluding US \$481,150 already approved for the phase-out of HCFC-141b in the foam sector.

21. UNIDO reported that an Environmental Protection and Energy Efficiency Fund was established in 2003, to ensure additional funds to finance projects and programmes for conservation, sustainable use, protection and improvement of the environment. In regard to the implementation of the HPMP, incentives will be provided either through the above Fund or through other sources to introduce low-GWP alternatives when possible. Additional funding for the conversion of privately-owned end-users would be provided by such users. UNIDO also noted that the project for the phase-out of 1.76 ODP tonnes of HCFC-141b used as a foam blowing agent was approved at a reduced level of funding (i.e., contingencies for capital costs and incremental operating costs were not claimed for a total amount of US \$42,000), since the water-based technology chosen was more expensive than the HFC-technology originally proposed. The owner of the enterprise had agreed to co-finance the cost differential and any additional investment required to complete the phase-out.

Impact on the climate

22. The implementation of the overall HPMP in Croatia would avoid the emission into the atmosphere of some 53,509 tonnes of CO₂-equivalent. Of this amount, 29,725 tonnes of CO₂ are related to the alternative refrigerants that will be charged when HCFC-22 based equipment is being serviced, retrofitted or replaced between 2010 and 2016 (Table 4 above) indicating a reduced charge for replacement refrigerants, and 23,783 tonnes of CO₂ are associated with the HCFC-141b foam conversion projects already approved by the Executive Committee (where pentane and water-blown technologies were selected). Further reductions on CO₂ emissions could be achieved through the introduction of good refrigeration service practices resulting in lower amounts of refrigerant being vented into the atmosphere during the operation and maintenance of the equipment.

Adjusted 2010-2014 business plans

23. Table 6 shows the level of funding and amounts of HCFCs to be phased-out according to the adjusted 2010-2014 business plan of the Multilateral Fund.

Table 6. Adjusted 2010-2014 business plan of the Multilateral Fund

Agency	2010	2011	2012	2013	2014	Total
Funding (US\$)						
Italy*	237,000	-	-	-	-	237,000
UNIDO	61,000	122,000	105,000	38,000	13,000	339,000
Total	298,000	122,000	105,000	38,000	13,000	576,000
Phase-out (ODP tonnes)						
Italy*	1.6					1.6
UNIDO	0.7	1.4	1.2	0.4	0.1	3.8
Total	2.3	1.4	1.2	0.4	0.1	5.4

* HCFC foam project approved at the 60th Meeting.

24. The amount requested for the 2010-2014 period is US \$224,000 above the total level in the adjusted business plan (this amount includes the HCFC foam project approved at the 60th Meeting of the Executive Committee). The total tonnage in the adjusted business plan of 5.4 ODP tonnes is 4.8 ODP tonnes more than the amount required to reduce 10 per cent of the estimated baseline for compliance. It is to be noted that the HPMP proposes the complete phase-out of HCFCs by the end of 2015.

Draft agreement

25. A draft agreement between the Government of Croatia and the Executive Committee for phase-out of consumption of HCFCs is contained in Annex I to the present document. The agreement had incorporated the foam projects for the phase-out of HCFC-141b approved by the Executive Committee at its 59th and 60th Meetings.

RECOMMENDATION

26. The HPMP for Croatia is submitted for individual consideration. Noting the strong national commitment by the Government of Croatia to completely phase-out its consumption of HCFCs by 1 January 2016; and further noting that the total level of funding requested by the Government is in accordance with the criteria for funding HCFC phase-out in the consumption sector, the Executive Committee may wish to consider:

- (a) Approving in principle, and on an exceptional basis, the HCFC phase-out management plan (HPMP) for Croatia, at the amount of US \$1,281,150, and agency support costs of US \$80,336 for UNIDO and US \$27,300, noting that US \$271,150 and agency support costs of US \$20,336 for UNIDO was approved at the 59th Meeting and US \$210,000 and agency support costs of US \$27,300 for Italy were approved at the 60th Meeting for the complete phase-out of HCFC-141b in the foam manufacturing sector;
- (b) Noting with appreciation the commitment by the Government of Croatia to accelerate its phase-out of HCFCs by 24 years in advance of the Montreal Protocol schedule;
- (c) Approving the Agreement between the Government of Croatia and the Executive Committee for the reduction in consumption of HCFCs, as contained in Annex I to document UNEP/OzL.Pro/ExCom/61/33;
- (d) Approving the first implementation plan for 2010-2011, and the first tranche of the HPMP for Croatia at the amount of US \$180,000, plus agency support costs of US \$13,500 for UNIDO; and
- (e) Approving Croatia to submit to the Executive Committee at a future Meeting, for subsequent inclusion in its HPMP, funding requests for disposal of ODS.

Annex I

DRAFT AGREEMENT BETWEEN THE REPUBLIC OF CROATIA 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 Republic of Croatia (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 2016, 24 years ahead of the Montreal Protocol phase-out schedule.
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. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances which exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this agreement for all ODS specified in Appendix 1-A, and in respect to any consumption of each of the substances which exceeds the level defined in 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 implementing agency (IA) of achievement of these consumption limits as described in sub-paragraph 5(b) of this Agreement.
5. The Executive Committee will not provide the Funding in accordance with the Funding Approval Schedule unless the Country satisfies the following conditions at least 60 days prior to the applicable Executive Committee meeting set out in the Funding Approval Schedule:
 - (a) That the Country has met the Targets for all relevant years. Relevant years are all years since the year in which the hydrochlorofluorocarbons phase-out management plan (HPMP) was approved when an 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 has substantially completed all actions set out in the previous tranche implementation plan and submitted a tranche implementation report in the form of Appendix 4-A (the “Format of Tranche Implementation Report and Plan”) for each previous calendar year; and
 - (d) That the Country has submitted and received endorsement from the Executive Committee for a tranche implementation plan in the form of Appendix 4-A (the “Format of Tranche Implementation Report and Plan”) for each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

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

7. While the Funding was determined on the basis of estimates of the needs of the Country to carry out its obligations under this Agreement, the Executive Committee agrees that the Country may have the flexibility to reallocate the approved funds, or part of the funds, according to the evolving circumstances to achieve the goals prescribed under this Agreement. Reallocations categorized as major changes must be documented in advance in the next tranche implementation plan and endorsed by the Executive Committee as described in sub-paragraph 5(d). Reallocations not categorized as major changes may be incorporated in the approved tranche implementation plan, under implementation at the time, and reported to the Executive Committee in the tranche implementation report. Any remaining funds will be returned to the Multilateral Fund upon closure of the last tranche of the plan.

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

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

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

10. The Lead IA will be responsible for carrying out the activities of the plan as detailed in the first submission of the HPMP with the changes approved as part of the subsequent tranche submissions, including but not limited to independent verification as per sub-paragraph 5(b). This responsibility includes the necessity to co-ordinate with the Cooperating IA to ensure appropriate timing and sequence of activities in the implementation. The Cooperating IA will support the Lead IA by being responsible for carrying out the activities listed in Appendix 6-B under the overall co-ordination of the Lead IA. The Lead IA and Cooperating IA have entered into a formal agreement regarding planning, reporting and responsibilities under this Agreement to facilitate a co-ordinated implementation of the Plan, including regular co-ordination meetings. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

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

specific case in which the country did not comply with this agreement, and take related decisions. Once these decisions are taken, this specific case will not be an impediment for future tranches as per paragraph 5.

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

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

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

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

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	4.27
HCFC-141b	C	I	3.08
HCFC-142b	C	I	0.14

APPENDIX 2-A: THE TARGETS, AND FUNDING

		2009	2010	2011	2012	2013	2014	2015	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	N/A	N/A	N/A	N/A	Baseline	Baseline	90% of baseline	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	6.6	6.6	6.6	6.6	4.0	3.0	2.0	n/a
2.1	Lead IA (UNIDO) agreed funding (US \$)	271,150*	180,000	0	320,000	220,000	80,000	0	1,071,150
2.2	Support costs for Lead IA(US \$)	20,336*	13,500	0	24,000	16,500	6,000	0	80,336
2.3	Cooperating IA (Italy) agreed funding (US \$)	0	210,000**	0	0	0	0	0	210,000
2.4	Support costs for Cooperating IA (US \$)	0	27,300**	0	0	0	0	0	27,300
3.1	Total agreed funding (US \$)	271,150	390,000	0	320,000	220,000	80,000		1,281,150
3.2	Total support cost	20,336	40,800	0	24,000	16,500	6,000	0	107,636
3.3	Total agreed costs (US \$)	291,486	430,800	0	344,000	236,500	86,000	0	1,388,786
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)								4.27
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)								0.00
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								0.00
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this agreement (ODP tonnes)								0.00
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)								3.71
4.2.3	Remaining eligible consumption for HCFCs (ODP tonnes)								0.00

(*) Funded at the 59th Meeting of the Executive Committee.

(**) Funded at the 60th Meeting of the Executive Committee.

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

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

APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORT AND PLAN

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 year specified in sub-paragraph 5(d) of the Agreement. The description should also specify and explain any revisions to the overall plan which were found to be necessary;
- (d) A set of quantitative information for the report and plan, submitted online into a database, as per the relevant decisions of the Executive Committee in respect to the format required. This quantitative information, to be submitted by calendar year, will be amending the narratives and description for the report (see sub-paragraph 1(a) above) and the plan (see sub-paragraph 1(c) above), and will cover the same time periods and activities; it will also capture the quantitative information regarding any necessary revisions of the overall plan as per sub-paragraph 1(c) above. While the quantitative information is required only for previous and future years, the format will include the option to submit in addition information regarding the current year if desired by the country and agency; and
- (e) An Executive Summary of about five paragraphs, summarizing the information of above sub-paragraphs 1(a) to 1(d).

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. The NOU will appoint a national institution to monitor all activities of the HPMP. This institute will submit annual progress reports of status of implementation of the HPMP through the NOU to UNIDO.
2. Verification of the achievement of the performance targets, specified in the Plan, will be undertaken, upon specific request of the Executive Committee, by an independent local company or independent local consultants contracted by UNIDO.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities to be specified in the project document as follows:
 - (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 Plan and subsequent report as per Appendix 4-A;
 - (c) Providing verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the tranche Implementation Plan consistent with Appendix 4-A.

- (d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future tranche implementation plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;
- (e) Fulfilling the reporting requirements for the tranches and the overall plan as specified in Appendix 4-A as well as project completion reports for submission to the Executive Committee; this responsibility includes the reporting about activities undertaken by the Cooperating IA.
- (f) Ensuring that appropriate independent technical experts carry out the technical reviews undertaken by the Lead IA;
- (g) Carrying out required supervision missions;
- (h) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;
- (i) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
- (j) Ensuring that disbursements made to the Country are based on the use of the indicators; and
- (k) Providing assistance with policy, management and technical support when required.

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

APPENDIX 6-B: ROLE OF COOPERATING IMPLEMENTING AGENCY

1. The Cooperating IA will:
 - (a) Assist the Country in the implementation and assessment of the activities funded for by the Cooperating IA (Phase-out of HCFC-141b at Poli-Mix company), and refer to the Lead IA to ensure a co-ordinated sequence in the activities; and
 - (b) Provide 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 \$50,000 per ODP tonne of reductions in consumption not achieved in the year.
