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

PROJECT PROPOSAL: CHILE

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

Phase-out

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

UNDP/UNEP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
Chile

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

(II) LATEST ARTICLE 7 DATA	Year: 2009	75.2 (ODP tonnes)
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(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									0.00
HCFC124									0.00
HCFC141b		22.64			1.52				24.16
HCFC142b					0.39				0.39
HCFC22		1.55			49.09				50.64
HCFC225									0.0

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline (estimate):	100.25	Starting point for sustained aggregate reductions:	100.25
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	0.0	Remaining:	75.25

(V) BUSINESS PLAN		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
UNDP	ODS phase-out (ODP tonnes)	4.2	9.2	6.7	3.9	1.5	0.0	0.0	0.0	0.0	0.0	25.5
	Funding (US \$)	564,393	564,393	564,393	389,923	231,456	0	0	0	0	0	2,314,556

(VI) PROJECT DATA			2011	2012	2013	2014	2015	Total
Montreal Protocol consumption limits (estimate)			n/a	n/a	100.3	100.3	90.2	
Maximum allowable consumption (ODP tonnes)			n/a	n/a	100.3	100.3	90.2	
Project Costs requested in principle(US\$)	UNDP	Project costs	465,566	628,976	317,006	181,382	163,214	1,756,144
		Support costs	34,917	47,173	23,775	13,604	12,241	131,710
	UNEP	Project costs	153,217	40,127	27,022	27,022	41,102	288,490
		Support costs	19,918	5,217	3,513	3,513	5,343	37,504
Total project costs requested in principle (US \$)			618,783	669,103	344,028	208,404	204,316	2,044,634
Total support costs requested in principle (US \$)			54,835	52,390	27,288	17,117	17,584	169,214
Total funds requested in principle (US \$)			673,618	721,493	371,316	225,521	221,900	2,213,848

(VII) Request for funding for the first tranche (2011)		
Agency	Funds requested (US \$)	Support costs (US \$)
UNDP	465,566	34,917
UNEP	153,217	19,918

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

PROJECT DESCRIPTION

1. On behalf of the Government of Chile UNDP, as the lead implementing agency, has submitted to the 63rd Meeting of the Executive Committee an HCFC phase-out management plan (HPMP) at a total cost of US \$3,114,595 plus agency support costs of US \$261,994, comprising of US \$2,598,245 plus agency support costs of US \$194,868 for UNDP, and US \$516,350 plus agency support costs of US \$67,126 for UNEP, as originally submitted. Implementation of the activities included in stage I of the HPMP would allow the Government to meet the 2013 and 2015 Montreal Protocol's control targets on time.

2. The amount being requested at this Meeting amounts to US \$408,925 plus agency support costs of US \$30,669 for UNDP and US \$265,703 plus agency support costs of US \$34,541 for UNEP for the implementation of the 2011 annual implementation plan for the HPMP.

ODS policy and regulatory framework

3. The Ministry of the Environment is responsible for the implementation of the Montreal Protocol. The Ozone Unit coordinates ODS phase-out activities in close cooperation with stakeholders in the public and private sectors through an advisory committee, technical committees and a strategic committee.

4. The Ozone Law of March 2006 establishes the control mechanisms applicable to all ODS, while a Supreme Decree of September 2007 establishes controls for ODS imports and the criteria for their distribution. HCFC importers and exporters must be registered in the national registry of ODS importers and exporters. ODS imports and exports are monitored by the National Customs Service. Given that the HCFC baseline for compliance has not yet been established, the Government is unable to introduce HCFC quotas. The National Customs Service will calculate the HCFC baseline in the first half of 2011, and then will establish the maximum total import volumes. The quota system will be fully operational by December 2012, in order to comply with the first control in 2013.

HCFC consumption

5. The level of HCFC consumption in 2009 was slightly lower than in 2008 due to the economic situation in the country that impacted on the manufacturing sector (resulting in a reduction in HCFC-141b consumption in particular). In 2010, a recovery of the manufacturing sector in Chile contributed to a higher demand for HCFCs. In addition, the earthquake in the central-southern part of the country in February 2010 increased the demand for HCFCs as a large number of HCFC-based equipment had to be repaired and the infrastructure requiring insulation foam panels had to be rebuilt. Insulation panels were also required to meet the increased demand for refrigeration systems. On this basis, HCFC consumption is expected to increase during 2010. The 2004-2009 HCFC consumption reported by the Government of Chile under Article 7 is presented in Table 1.

Table 1. HCFC consumption in Chile

HCFCs	2004	2005	2006	2007	2008	2009	2010*
Metric tonnes							
HCFC-22	759.6	789.4	924.4	643.4	829.5	920.7	915.9
HCFC-123	2.4	0.7	3.0	2.0	0.0	0.4	5.6
HCFC-124	0.5	1.0	1.2	1.2	-	0.4	0.5
HCFC-141b	254.1	274.5	258.0	390.6	413.7	219.7	644.1
HCFC-142b	0.2	0.2	3.3	4.1	4.6	6.0	53.5
HCFC-225	-	-	0.6	1.2	3.9	-	19.3
Total (metric tonnes)	1,016.8	1,065.8	1,190.5	1,042.5	1,251.7	1,147.1	1,638.9
ODP tonnes							
HCFC-22	42.0	43.4	50.8	35.4	45.6	50.6	50.4
HCFC-123	0.1	0.0	0.1	0.0	0.0	0.0	0.1

HCFCs	2004	2005	2006	2007	2008	2009	2010*
HCFC-124	0.1	0.0	0.0	0.0	-	0.0	0.0
HCFC-141b	28.0	30.2	28.4	43.0	45.5	24.2	70.8
HCFC-142b	0.0	0.0	0.2	0.3	0.3	0.4	3.5
HCFC-225	-	-	0.0	0.1	0.1	-	0.5
Total (ODP tonnes)	70.2	73.7	79.5	78.8	91.5	75.2	125.3

(*) Estimated consumption.

6. Based on the 2002-2008 historical annual growth rate of HCFC consumption in Chile (nearly 11 per cent average for all HCFCs) and the actual consumption levels reported for the first semester of 2010, and given that the national economy is recovering from the 2009 recession, in 2012 the HCFC-22 consumption will increase to 63.9 ODP tonnes. In contrast HCFC-141b consumption is expected to fall to about 60 ODP tonnes.

HCFC sector distribution

7. HCFC consumption is mainly HCFC-22 (nearly 40 per cent of total HCFC consumption in 2010 measured in ODP tonnes) used in the refrigeration industry for servicing refrigeration and air conditioning systems, with a small amount used as a foam blowing agent. HCFC-141b consumption (56 per cent of total HCFC consumption) is used in the production of polyurethane foams by two systems houses that manufacture and market fully-formulated pre-blended polyol systems. Additionally, 16 metric tonnes (mt) (1.8 ODP tonnes) of HCFC-141b were also imported in formulated polyols and 100.4 mt (11.0 ODP tonnes) were exported in the same form. HCFCs are also used to a lesser extent as solvents for general cleaning, in precision cleaning (HCFC-225), and in fire extinguishers (HFC-123), as shown in Table 2 below.

Table 2. Sector distribution of HCFCs in Chile (2009-2010 average consumption)

Subsector	HCFC	Metric tonnes	ODP tonnes
Domestic refrigeration (foam)	HCFC-141b	3.3	0.4
Commercial refrigeration	HCFC-22	3.5	0.2
Continuous panels (foam)	HCFC-141b	90.4	9.9
Continuous panels (foam)	HCFC-22	24.4	1.3
Discontinuous panels (foam)	HCFC-141b	116.8	12.8
Spray foam	HCFC-141b	93.9	10.3
Refrigeration servicing	HCFC-22	890.4	49.0
Refrigeration servicing	HCFC-141b	27.2	3.0
Refrigeration servicing	HCFC-142b	29.8	1.9
Refrigeration servicing	HCFC-124	0.5	0.0
Fire extinguishers	HCFC-123	3.0	0.1
Solvents	HCFC-225	9.6	0.2
Subtotal		1,292.7	89.2
Export of formulated polyols	HCFC-141b	100.4	11.0

8. There are 15 foam enterprises manufacturing panels for thermal insulation applications (domestic, commercial and industrial refrigeration systems) with a total estimated consumption of 201.7 mt of HCFC-141b and 22.0 mt of HCFC-22 (i.e., 23.4 ODP tonnes in total) in 2008. Of this consumption, 96.4 mt (representing 43 per cent of the total consumption) was associated with three enterprises with a foreign ownership component. An additional 90 mt (9.9 ODP tonnes) of HCFC-141b was used by 12 enterprises manufacturing spray foams.

HCFC phase-out strategy and costs

9. To meet the 2013 and 2015 HCFC compliance level, 35 ODP tonnes would need to be phased out (based on an annual growth rate of 11 per cent from the estimated consumption for 2010). The Government of Chile has defined the following five strategic approaches under which concrete projects and activities to phase out HCFCs have been developed, as shown in Table 3 below. The five strategic lines involve: regulatory improvements; the conversion of foam manufacturing enterprises, with an estimated consumption of 59.6 mt (6.5 ODP tonnes) of HCFC-141b; activities in the refrigeration servicing sector based on lessons learned from the phase-out of CFCs; awareness-raising activities; and the coordination and monitoring of implementation of HCFC phase-out projects and activities.

Table 3. Phase-out activities proposed in the HPMP for Chile

Activities/Projects	Agency	Cost (US \$)
Strategic line 1: Implementation of a regulatory framework for HCFC	UNDP/UNEP	894,190
Establishment of the maximum volume system for imports of HCFCs	UNEP	96,100
Implementation of a control system for HCFCs	UNEP	168,230
Control system for HCFC-based equipment and ODS in general	UNDP	157,100
Implementation of control system for trade use and handling of HCFCs	UNDP	317,310
Inclusion of complementary compliance instruments	UNDP	155,450
Strategic line 2: Support programme for the foam sector	UNDP	672,399
Foam conversion projects	UNDP	672,399
Strategic line 3: Support programme for the refrigeration sector	UNDP	1,193,553
Training in good refrigeration practices and retrofits	UNDP	166,562
Sector specific training including demonstrations for the refrigeration sector	UNDP	233,721
Certification system for skilled refrigeration technicians.	UNDP	132,400
Incentives programme for retrofit of small cold rooms in agro-industry	UNDP	193,050
Regeneration programme	UNDP	245,070
Phase-out of HCFC-141b used for refrigeration servicing	UNDP	222,750
Strategic line 4: Awareness-raising programme	UNEP	252,020
Encouraging of large users and refrigeration technician's participation	UNEP	121,520
Driving consumption to technologies and products HCFC free	UNEP	130,500
Strategic line 5: Monitoring Programme	UNDP	102,433
Monitoring programme	UNDP	102,433
Total		3,114,595

Phase-out of HCFC-141b

10. To meet the 2013 and 2015 phase-out targets, the Government of Chile is proposing to partially phase out the consumption of HCFC-141b used as a foam blowing agent, and as a solvent in servicing refrigeration systems.

11. The project addressing the foam sector proposes the conversion of the following four enterprises manufacturing discontinuous panels, with a total consumption of 59.6 mt (6.5 ODP tonnes) of HCFC-141b. Orica, the largest systems house in Chile (100 per cent foreign ownership) with more than 80 per cent of the market, will provide fully formulated cyclopentane-based polyol systems:

- (a) Danica Termointustrial which started production in 2001 and manufactures thermo insulating systems (600,000 m² of insulating panels and 10,000 thermal insulation doors per year), had an HCFC-141b consumption of 30.6 mt (3.4 ODP tonnes) in 2008. The company has 10 per cent foreign ownership. The baseline equipment consists of a high pressure unit and a mould fixture. Conversion to pre-blended hydrocarbon systems includes conditioning of the storage area, retrofitting of the foam dispenser, safety-related equipment, trials, testing and safety audit at an estimated cost of US \$262,728. Incremental operating costs have been estimated at US \$63,884. The cost effectiveness is

US \$10.67/kg (before discounting US \$32,661 related to foreign ownership);

- (b) Refricentro S.A., is a national enterprise established in 1974, manufacturing thermal insulation panels, cold room doors and refrigeration equipment for cold rooms. In 1999, the enterprise began manufacturing insulating panels of different thicknesses with a density of 40 kg/m³. The enterprise consumed 9.4 mt (1.0 ODP tonnes) of HCFC-141b in 2008. The baseline equipment consists of a high pressure unit purchased in May 2007. Conversion to pre-blended hydrocarbon systems includes conditioning of the storage area, retrofitting of the foam dispenser, safety-related equipment, trials, testing and safety audit at an estimated cost of US \$203,451. Incremental operating costs have been estimated at US \$18,757. The cost effectiveness is US \$23.74/kg;
- (c) Polchile Ltd. is a national enterprise established in 2003, manufacturing rigid insulation panels of different thicknesses for the construction industry (61,200 m² per year) and for cold doors (180,000 m² per year). The enterprise consumed 7.4 mt (0.8 ODP tonnes) of HCFC-141b in 2008. The baseline equipment consists of a high pressure unit purchased in 1994. Conversion to pre-blended hydrocarbon systems includes conditioning of the storage area, replacement of the foam dispenser by a new unit, safety-related equipment, trials, testing and safety audit at an estimated cost of US \$378,279. Incremental operating costs have been estimated at US \$15,541. The cost effectiveness is US \$53.45/kg; and
- (d) Superfrigo S.A. is a national enterprise established in 1991, manufacturing thermal insulation panels of different thicknesses (37,550 m² per year). The enterprise consumed 12.2 mt (1.3 ODP tonnes) of HCFC-141b in 2008. In 1999, with support from the Multilateral Fund, the enterprise converted from CFC-11 (5.4 ODP tonnes) to HCF-141b technology by retrofitting the high pressure foam injection machine (the project was completed in June 2001). Conversion to pre-blended hydrocarbon systems includes conditioning of the storage area, replacement of the foam dispenser by a new unit, safety-related equipment, trials, testing and safety audit at an estimated cost of US \$329,066. Incremental operating costs have been estimated at US \$25,745. The cost effectiveness is US \$29.00/kg.

12. Given the cost-effectiveness threshold of US \$9.79/kg and the foreign ownership component in one of the enterprises, the Government of Chile is requesting US \$553,037; the remaining funding of US \$744,416 will be covered by the enterprises as counterpart funding. An additional US \$119,362 is also requested from the Fund for local and international experts, verification and other expenses.

13. Orica, the systems house, is proposing to install an underground storage tank for hydrocarbons and a premixing unit to blend the polyols and hydrocarbons in different proportions according to end-users' requirements, and to retrofit the storage tanks of fully formulated polyols and safety-related equipment, at an estimated cost of US \$401,500 (to be covered by the systems house).

14. The project addressing the phase-out of HCFC-141b used for servicing refrigeration systems proposes to purchase equipment to apply alternative substances and provide training to technicians at a total cost of US \$222,750. The project will result in the phase-out of 27.4 mt (3.0 ODP tonnes) of HCFC-141b.

Monitoring

15. The monitoring programme of the HPMP will allow the Government of Chile to coordinate and monitor the implementation of projects and activities included in the strategic lines.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

16. The HPMP for Chile was first submitted to the 62nd Meeting and subsequently withdrawn by UNDP upon a request by the Government. This led to a change in the HPMP strategy, and gave rise to questions by the Secretariat regarding: funding for the preparation of investment projects; the increase in HCFC consumption between 2009 and 2010, and the establishment of the baseline and starting point for aggregate reduction; and the decision to focus activities in stage I of the HPMP on the servicing sector rather than on foam manufacturing.

17. The Secretariat reviewed the resubmitted HPMP in the context of the guidelines for the preparation of HPMPs (decision 54/39), the criteria for funding HCFC phase-out in the consumption sector agreed at the 60th Meeting (decision 60/44) and the 2011-2014 consolidated business plan submitted to the 63rd Meeting.

Funding for preparation of investment projects

18. At the 57th Meeting, the Committee approved US \$50,000 for the preparation of HCFC phase-out investment activities in refrigeration manufacturing in Chile. As stated in the HPMP, HCFC-22 is only used for servicing refrigeration and air conditioning systems and thus the project preparation funds should be returned to the Multilateral Fund. UNDP reported that the data collection carried out with part of the preparation funds had shown that companies in Chile were not using HCFCs for manufacturing commercial refrigeration equipment, as had been believed. This conclusion was reached from the results of the field work carried out. Based on the information collected, a training programme for the refrigeration sector has been included in stage I of the HPMP.

Baseline and starting point calculations

19. Further clarification was sought for the significant increase in HCFC consumption between 2009 and 2010: HCFC-123 from 0.4 to 5.6 mt; HCFC-141b from 219.7 to 644.1 mt; HCFC-142b from 6 to 53.5 mt; and HCFC-225 from zero to 19.3 mt, while HCFC-22 decreased. UNDP explained that, in addition to the increased demand for HCFC-141b insulation foams caused by the devastating earthquake and the economic recovery, HCFC-142b consumption increased due to the replacement of CFC-12 by the refrigerant blend R-406 (containing 55 per cent HCFC-22 and 41 per cent HCFC-142b) used for servicing some refrigeration equipment. HCFC-225, used as a solvent, was not imported in 2009, as companies were using stocks, but requests for imports of HCFC-225 began again in 2010 as the economy improved. The rapid growth in HCFC consumption in 2010 is expected to revert to the historical growth rate in 2011. Future HCFC consumption was therefore estimated based on the average 2009-2010 consumption, and not on 2010 consumption.

20. The Government of Chile has estimated its baseline consumption for compliance at 100.25 ODP tonnes, based on the 2009 reported consumption of 75.21 ODP tonnes and an estimated consumption of 125.30 ODP tonnes in 2010. The 2011-2014 business plan indicated a baseline of 78.2 ODP tonnes, which did not take into consideration the much higher consumption that occurred in 2010 associated with the economic recovery of the manufacturing sectors and the increased demand for HCFC-based products due to the earthquake in February 2010.

21. The Government of Chile does not contemplate making a request for any funding for the conversion of HCFC-based pre-blended polyols for export, as the country understands that this market segment is not eligible for funding and will not ask for any support for HCFC phase-out in the future. Decision 61/47 does not modify the global reporting system for HCFC consumption or the starting point for aggregate reduction. Furthermore, Chile also understands that the non-Article 5 ownership portion of

the manufacturing enterprises is not eligible for funding and will not request any assistance for HCFC phase-out for this consumption in the future.

HPMP strategy

22. To meet the 2013 and 2015 targets, Chile would have to phase out nearly 35.0 ODP tonnes of HCFCs, of which 6.5 ODP tonnes are HCFC-141b used in the manufacturing of foam products (at a cost of US \$672,399) and 27.5 ODP tonnes in the refrigeration servicing sector (at a cost of US \$2,339,763, excluding US \$102,433 for the monitoring programme of the HPMP). It was noted that although there is enough HCFC-141b eligible for phase-out in the foam blowing agent sector, over 80 per cent of the HCFCs to be phased out during stage I of the HPMP are in the servicing sector. Explaining the reasons for addressing most of the consumption in the servicing sector, UNDP made the following points:

- (a) The HPMP for Chile was originally submitted to the 62nd Meeting. The largest foam manufacturing enterprises in Chile currently using HCFC-141b as a blowing agent were not eligible for funding due to foreign ownership or start-date issues. Therefore, only seven medium-size foam enterprises manufacturing discontinuous panels with HCFC-141b consumption between 7 to 20 mt (0.8 to 2.2 ODP tonnes), and several small low-technology enterprises, with an average consumption below 5 mt (0.6 ODP tonnes), were eligible for funding;
- (b) Given the priority to phase-out first HCFCs with the highest ODP values (as per decision XIX/6), the phase-out of HCFC-141b used by five discontinuous foam panel manufacturers was included as a component of stage I of the HPMP. These enterprises were selected after a thorough analysis of the local foam market and the availability of alternative technologies;
- (c) Subsequently in-depth discussions with the local systems houses and foam enterprises led to the conclusion that the lack of a proven cost-effective and commercially available low-GWP technology made it impossible to replace the HCFC-141b used by small enterprises.¹ Therefore, only the seven enterprises manufacturing discontinuous panels would be able to phase out HCFC-141b at this time, with hydrocarbon technology chosen as the best alternative. With respect to that proposal, the Secretariat pointed out that, given the level of investment required for the safe conversion of the enterprises to a hydrocarbon technology and the relatively low levels of HCFC consumption, a significant level of co-funding (between 50 to 70 per cent of the total cost) would have to be provided by the enterprises. Given this situation the Government of Chile requested that the HPMP be deferred to the 63rd Meeting.

23. During the project review process for the 63rd Meeting, the Government of Chile and UNDP proposed a revised phase-out strategy for the foam sector. A local systems house (Orica) would manufacture pre-blended hydrocarbon-based polyols for the foam panel enterprises that were included in stage I of the HPMP, thus reducing the investment required at the foam enterprises by an average of 30 per cent. As a company fully owned by non-Article 5 capital, Orica would convert its facility with its own resources (estimated at US \$400,000). However, this new approach met with a number of obstacles:

- (a) Only three of the foam enterprises with a total combined consumption of 36 mt (4.0 ODP tonnes), were committed to phasing out HCFC-141b consumption; however, the amount

¹ At present, local systems houses in Chile do not consider methyl formate to be a viable alternative; methylal has not yet been validated (the report of the UNDP methylal pilot project will be completed during 2011); and, although recent studies showed promising thermal properties with foams based on the developed unsaturated HFCs (also called HFOs), toxicological studies have yet to be completed and commercialization is only expected after 2013.

of HCFC to be phased out would not be sufficient to meet the 2013 and 2015 control measures;

- (b) Concerns were also raised about the economic viability for the systems house and the high risk associated with the introduction of hydrocarbon pre-blended polyols in Chile, given the relatively low levels of consumption. It was therefore decided that the introduction of hydrocarbon pre-blended polyol technology should be reconsidered based on further research and in light of the results of the two pilot projects being carried out by UNDP (Egypt) and the World Bank (China); and
- (c) Furthermore, the Government's economic policy does not allow it to ban production of foams using HCFC-141b until all eligible enterprises have been converted and, therefore, the foreign-owned foam enterprises (with the largest consumption of HCFC-141b) would convert only on a voluntarily basis.

24. Taking into account the above considerations and the fact that there are no other HCFC-based manufacturing sectors in the country, the Government of Chile considered it necessary to address HCFC consumption only in the refrigeration and air-conditioning servicing sector to enable compliance with the 2013 and 2015 control measures. During stage II of the HPMP, the Government of Chile will give serious consideration to completely phase-out the consumption of HCFC-141b in the foam sector with assistance from the Multilateral Fund for eligible enterprises while non-eligible enterprises will convert with their own resources. During the stage I of the HPMP the Government of Chile and UNDP will continue to have extensive consultations with foam enterprises and systems houses on developments, market penetration and performance of low GWP technologies in order to ensure that outstanding technical and cost related issues are addressed and alternatives will be locally available and economically affordable for the foams sector in Chile.

25. The revised phase-out strategy is based on the strategic lines one, three, four and five in Table 3 above. Activities will include:

- (a) A regulatory framework for HCFCs featuring customs controls, a quota and registry system, controls on the production, storage, transportation and treatment/recycling of HCFCs, and energy efficiency labelling;
- (b) Technical assistance for the refrigeration servicing sector; a technical assistance programme in the supermarket sector (which consumes 45 per cent of the total HCFC-22 used in servicing in Chile) featuring demonstration of low GWP and high energy-efficiency technologies, as well as co-financing efforts; a pilot centre for refrigerant recovery, recycling, reclaiming and storage; complete phase-out of about 30 mt (3.3 ODP tonnes) of HCFC-141b used in the cleaning of cooling circuits;
- (c) Awareness-raising targeted at HCFC-based refrigeration end-users, technicians, small and medium size enterprises, and decision makers; and
- (d) A monitoring programme.

Technical and cost issues

26. In regard to funding for the regulatory framework for HCFCs, UNDP explained that, at the 55th Meeting, it submitted a request for the preparation of an HPMP for Chile, at a total cost of US \$245,000; however, the proposal was approved at US \$150,000. During the preparation of the HPMP, the Ozone Unit organized a number of consultations with several stakeholders to better understand the regulatory implications of accelerating the phase-out of HCFCs, thereby identifying additional measures

that will have to be established and reinforced during the next five years. Furthermore, the regulatory component of the proposed HPMP cannot be covered with the HPMP preparatory funding, and there had been no indication that funds from previously approved investment projects should have been used to develop legislation. In addition to the modification of the Decree that will establish the maximum import volumes, the HPMP proposes to implement an HCFC control system (which will include the amounts of imported HCFC-141b fully-formulated polyols), training, and a system to extend control to ODS-based equipment in order to achieve an effective HCFC monitoring system within Chile.

27. In regard to the training activities in the refrigeration servicing sector, UNDP advised that the remaining funds available under the CFC national phase-out plan are being used in training programmes to facilitate the transition from CFC-based equipment to alternative refrigerants. While an additional effort will be made to incorporate HCFC issues in the training programmes under current implementation, the training activities requested under the HPMP have been designed to build on the structures put in place by the CFC project and provide specialized training to convert equipment in areas of high consumption of HCFC-22 that were not eligible for conversion under the CFC phase-out framework, such as supermarkets, some applications in refrigeration, and air conditioning. In regard to the importance of phasing out HCFC-141b used for cleaning cooling systems, it was noted that, given the increase in consumption (from 2.3 mt (0.3 ODP tonnes) to 27.4 mt (3.0 ODP tonnes) between 2007 and 2010, the sizeable amount used (representing almost 3 per cent of the total consumption in Chile) and the immediate impact it has on climate as it reaches the atmosphere once it is emitted, the retrofit should be implemented during stage I of the HPMP.

28. In explaining how the activities proposed in stage I of the HPMP will contribute in reducing HCFC-22 growth in the servicing sector and in meeting the 2013 and 2015 control targets (as required by decision 62/12 (b)), UNDP indicated that the programme addressing the supermarket sector (consuming 45 per cent of the total HCFC-22 used for servicing) will provide technical assistance to five supermarkets to assist them to undertake major investments in the conversion of their installations to low GWP technologies before the end of their life cycle. Although several supermarkets have already considered investing in these conversions, they are encountering technical and cost issues related to the lack of expertise and unavailability of components needed to implement these technologies. The conversion of the 5 supermarkets will reduce 2.15 mt of HCFC-22 as the amount of HCFC recovered from the existing systems will be recycled and reused. From the second year onwards, 0.4 mt of HCFC-22 will no longer be required for the servicing of these installations (HCFC-22 consumption in the supermarket sector is forecast to continue growing). Furthermore, the training in good practices, certification scheme for technicians and the reclaiming centre to complement the recovery and recycling network proposed in stage I of the HPMP aim to reduce the demand of HCFC-22 by promoting recovery and reuse operations. These activities are complemented by robust regulatory measures which include the registry system in the Customs department for HCFC-based equipment, a labelling programme and a registry system for purchase of HCFC refrigerants. Finally, the project to phase out HCFC-141b in the cleaning of refrigeration circuits will permanently phase out 27.4 metric tonnes of HCFC-141b used in this sector.

29. The Secretariat and UNDP discussed a methodology for calculating the costs of stage I of the HPMP based on the revised phase-out strategy proposed by the Government of Chile addressing HCFC consumption solely in the servicing sector. The total amount of HCFC phase-out required to meet the 2013 and 2015 compliance targets was calculated at 10 per cent of the HCFC-22 baseline consumption (i.e., 98 mt), plus an additional 356.4 mt of HCFC-22 to compensate for the increase in consumption of HCFC-141b in the foam sector in 2011 and 2012, resulting in a total of 454.4 mt of HCFC-22 (25.0 ODP tonnes). The total funding was calculated at US \$2,044,634 (i.e., at US\$4.50/kg), comprising US \$1,756,144 for UNDP and US \$288,490 for UNEP. The total value requested for the period 2011-2015 of US \$2,213,845 including support cost was slightly below the total amount in the business plan (of US \$2,314,600).

Impact on the climate

30. UNDP explained that during the preparation of the HPMP, several institutions working on energy efficiency and climate change were consulted on potential climate benefits related to the HPMP activities. One specific subject of discussion between UNDP and the authorities at the Ministry of Environment is how to ensure that the reductions in HCFC consumption are not undermined by the introduction of high-GWP alternative refrigerants.

31. The proposed technical assistance activities in the HPMP, which include the introduction of better servicing practices, enforcement of HCFC import controls and technical assistance to the supermarket sector, will reduce the amounts of HCFC-22 and HCFC-141b used for refrigeration servicing. Each kilogram (kg) of HCFC-22 not emitted due to better refrigeration practices results in approximately 1.8 CO₂-equivalent tonnes saved, while the phase-out of 27.4 mt of HCFC-141b to be phased out from emissive uses and in the servicing sector results in over 19,350 CO₂-equivalent tonnes. At this time, the Secretariat is not in a position to quantitatively estimate the impact on the climate. The impact might be established through an assessment of implementation reports by, *inter alia*, comparing the levels of refrigerants used annually from the beginning of HPMP implementation, the reported amounts of refrigerants being recovered and recycled, the number of technicians trained and the HCFC-22-based equipment being retrofitted. It is noted that the calculation of the impact on the climate of 103,762 CO₂-equivalent tonnes saved in emissions into the atmosphere estimated in the 2011-2014 business plan does not take into account the impact on the climate associated with the alternative refrigerants that will be introduced and also assumes the phase-out of HCFC-141b used in the foam sector.

Co-financing

32. The Secretariat noted that co-financing opportunities for mobilizing additional resources to maximize the environmental benefits of the HPMP for Chile were not included in the HPMP document. UNDP explained that a significant co-financing opportunity under stage I of the HPMP was the systems houses' participation in introducing hydrocarbon pre-blended polyol systems to be used by the foam enterprises manufacturing discontinuous panels. The estimated investment cost (over US \$400,000) will be covered by the company (as it is totally owned by non-Article 5 capital).

33. With regard to climate change, UNDP and the Government discussed options under the clean development mechanism (CDM) and the voluntary carbon market. Under the CDM, the existing methodologies for energy efficiency cannot be applied to the foam manufacturing sector in Chile, and there are no potential energy improvements available in the refrigeration and air-conditioning sectors. With regards to potential co-financing under the voluntary carbon markets, it was found to be premature at this stage, given that only ODS destruction projects are being considered.

Draft Agreement

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

RECOMMENDATION

35. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage I of the HCFC phase-out management plan (HPMP) for Chile, at the amount of US \$2,213,848 comprising US \$1,756,144 plus agency support costs of US \$131,710 for UNDP; and US \$288,490 plus agency support costs of US \$37,504 for UNEP;

- (b) Noting that the Government of Chile had agreed at the 63rd Meeting to establish as its starting point for sustained aggregate reduction in HCFC consumption, the estimated baseline of 100.3 ODP tonnes, calculated using actual consumption reported in 2009 (75.2 ODP tonnes) and estimated consumption for 2010 (125.3 ODP tonnes);
- (c) Deducting 25.0 ODP tonnes of HCFCs from the starting point for sustained aggregate reduction in HCFC consumption.
- (d) Approving the draft Agreement between the Government of Chile 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 were known, to update Appendix 2-A to include the Agreement with the figures for maximum allowable consumption, and to notify the Executive Committee of the resulting levels of maximum allowable consumption accordingly; and
- (a) Approving the first implementation plan for 2011-2012, and the first tranche of the stage I of the HPMP for Chile and the corresponding implementation plan at the amount of US \$673,618 comprising US \$465,566 plus agency support costs of US \$34,917 for UNDP; and US \$153,217 plus agency support costs of US \$19,918 for UNEP.

Annex I

DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF CHILE AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS

1. This Agreement represents the understanding of the Government of Chile (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 90.24 ODP tonnes prior to 1 January 2015 in compliance with Montreal Protocol schedules, with the understanding that this figure is to be revised one single time in 2011, when the baseline consumption for compliance would be established based on Article 7 data.
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”; the Target) 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, 4.2.3, and 4.3.3 (remaining eligible consumption).
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees in principle to provide the funding set out in row 3.1 of Appendix 2-A (“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 (“Funding Approval Schedule”).
4. The Country will accept independent verification, to be commissioned by the relevant bilateral or implementing agency, of achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) of this Agreement 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 (“Format of Tranche Implementation Reports and Plans”) 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 (“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 (“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 agencies 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 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 of this Agreement will not be modified on the basis of any future Executive Committee decision that may affect the funding of any other consumption sector projects or any other related activities in the Country.

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

14. The completion of the HPMP and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption has been specified in Appendix 2-A. Should at that time activities be still outstanding which were foreseen in the Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per Appendix 4-A (a), (b), (d) and (e) continue until the time of the completion if not specified by the Executive Committee otherwise.

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

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	50.5
HCFC-141b	C	I	47.5
HCFC-142b	C	I	1.95
HCFC-123	C	I	0.05
HCFC-124	C	I	0.01
HCFC-225	C	I	0.25

APPENDIX 2-A: THE TARGETS, AND FUNDING

		2010	2011	2012	2013	2014	2015	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)		NA	NA	100.27	100.27	90.24	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)		NA	NA	100.27	100.27	90.24	n/a
2.1	Lead IA UNDP agreed funding(US \$)		465,566	628,976	317,006	181,382	163,214	1,756,144
2.2	Support costs for Lead IA(US \$)		34,917	47,173	23,775	13,604	12,241	131,710
2.3	Cooperating IA UNEP agreed funding (US \$)		153,217	40,127	27,022	27,022	41,102	288,490
2.4	Support costs for Cooperating IA (US \$)		19,918	5,217	3,513	3,513	5,343	37,504
3.1	Total agreed funding (US \$)		618,783	669,103	344,028	208,404	204,316	2,044,634
3.2	Total support cost (US \$)		54,835	52,390	27,288	17,117	17,584	169,214
3.3	Total agreed costs (US \$)		673,618	721,493	371,316	225,521	221,900	2,213,848
4.1.1	Total phase-out of HCFC-141b agreed to be achieved under this agreement (ODP tonnes)							3.02
4.1.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)							0.00
4.1.3	Remaining eligible consumption for HCFC 141b (ODP tonnes)							44.48
4.2.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)							21.98
4.2.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)							0.00
4.2.3	Remaining eligible consumption for HCFC 22 (ODP tonnes)							28.52
4.3.1	Total phase-out other HCFCs (123, 225, 124, 142b) agreed to be achieved under this agreement (ODP tonnes)							0.00
4.3.2	Phase-out other HCFCs (123, 225, 124, 142b) to be achieved in previously approved projects (ODP tonnes)							0.00
4.3.3	Remaining eligible consumption for other HCFCs (123, 225, 124, 142b) (ODP tonnes)							2.26

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 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 the Lead IA; 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 National Ozone Unit of the Ministry of Environment shall be responsible for coordinating the various actions associated with each strategic line. In order to carry this out, the NOU will coordinate with the different areas of the institution, such as Regulation and Policy, Pollution Control, Legal and Communications, among others.

2. To support the implementation of projects within the different sectors, national and international consultants will be hired, if necessary, to implement the identified activities and give support to the National Ozone Unit in liaison with key stakeholders including other Ministries or Agencies, and private sector.

3. Within the Foam Sector, the consultants will assist in the selection of the more convenient technological and economical conversion options.

4. Within the Refrigeration Sector, they will assist with the implementation of training projects, demonstrative conversions, R & R Centre, among other actions to be carried out in the refrigeration sector.

5. The Government is fully supportive of the NOU. The Ministry of Environment has ensured -and will assure in the future- passage of all necessary national laws and regulations, including establishing an import licensing system which allows to establish annual maximum admissible import quantities for Chile of substances that are regulated under the Montreal Protocol, its amendments and its annexes and set the basis for control of HCFCs into the country.

6. For proper implementation of these projects, it is essential to have the active participation from the relevant Public Service Offices as well as the National Customs Service who will have an active involvement in defining and implementing procedures for HCFCs control.

7. It is also important to count on the different companies, technicians and technical services involved in each activity of this project. These actors will have to take responsibility for implementing good practices in refrigeration and promote behavioural change in their peers. Relevant actors within the foam sector will include the HCFC-141b users in foams and the suppliers of alternative technologies, as well as system houses.

Verification and Reporting

8. The outcome of the different elements of the HPMP will be verified independently by an external organization. The Government and the independent organization will jointly design the verification procedures as part of the design phase of the monitoring programme.

Frequency of verification and reporting

9. The monitoring reports will be produced each year, previous to the first meeting of the Executive Committee. These reports will produce the input for the yearly implementation reports required by the Executive Committee.

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 Cooperating IA, 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 \$180 per ODP tonne 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.
