UNITED NATIONS

EP

United Nations Environment Programme

Distr.
LIMITED

UNEP/OzL.Pro/ExCom/44/40
2 November 2004

ORIGINAL: ENGLISH

EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Forty-fourth Meeting
Prague, 29 November-3 December 2004

PROJECT PROPOSAL: INDONESIA

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

Phase out

- National CFC phase-out plan for Indonesia, comprising the following sectoral plans:

• Phase-out of residual CFCs in the aerosol sector	UNDP, World Bank
• Phase-out of residual CFCs in the foam sector (second instalment of first tranche)	World Bank
• Phase-out of CFCs in the refrigeration sector (third tranche)	UNDP, World Bank
• Plan for terminal phase-out out of ODS in the solvent sector	UNIDO

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PROJECT EVALUATION SHEET - MULTI-YEAR PROJECTS
INDONESIA

PROJECT TITLE	BILATERAL/IMPLEMENTING AGENCY
National CFC phase-out plan	UNDP (Lead Agency)

SUB-PROJECT TITLES

(a) Phase-out of residual CFCs in the aerosol sector	UNDP, World Bank
(b) Phase-out of residual CFCs in the foam sector (second instalment of first tranche)	World Bank
(c) Phase-out of CFCs in the refrigeration sector (third tranche)	UNDP, World Bank
(d) Plan for terminal phase-out out of ODS in the solvent sector	UNIDO

NATIONAL CO-ORDINATING AGENCY:	Ministry for Environment

LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT

A: ARTICLE-7 DATA (ODP tonnes, 2003, as of October 2004)

CFCs	4,289.3	TCA	10.7
CTC	16.5		

B: COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes, 2003, as of October 2004)

ODS	Foam	Ref.	Aerosol	Solvents		
CFCs	791.34	3,193.3	766.3	78.4		
CTC				16.5		
TCA				10.7		

CFC consumption remaining eligible for funding (ODP tonnes)	258.5

CURRENT YEAR BUSINESS PLAN: Total funding US $4,166,200: total phase-out 758.9 ODP tonnes.

PROJECT DATA	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**Total**
Compliance Milestone	8,332.7	8,332.7	**8,332.7**	4,166.4	4,166.4	1,249.9	1,249.9	
Maximum Allowable Annual Consumption of Annex-A, Group-I Substances (ODP tonnes)	N/A	6,435.0	**5,656.0**	3,990.0	2,441.0	1,232.0	30.0+++	
Annual Reduction from on-going projects (ODP tonnes)	468.0	559.0	**976.0**	652.0	300.0	100.0	-	3,055.0
Annual CFC phase-out target in the Aerosols Sector – UNDP (ODP tonnes)	-	-	**80.0**	-	-		-	80.0
Annual CFC phase-out target in the Aerosols Sector – World Bank (ODP tonnes)	-	-		-	-	180.0	-	180.0
Annual CFC phase-out target in the Foams Sector – World Bank (ODP tonnes)	-	-	-	130.0	156.0	66.0	-	352.0
Annual CFC phase-out target in the Refrigeration Manufacturing Sector – UNDP (ODP tonnes)	-	-	**300.0**	300.0	300.0	241.0	-	1,141.0
Annual CFC phase-out target in the Refrigeration Servicing Sector - UNDP (ODP tonnes)	-	-	**200.0**	300.0	322.0	250.0	-	1,072.0
Annual CFC phase-out target in the MAC Sector – World Bank (ODP tonnes)	-	220.0	**110.0**	110.0	110.0	365.0	-	915.0
Annual CFC phase-out target in the Solvent Sector – UNIDO (ODP tonnes) ++	-	-	-	57.0	21.0	-	-	78.0
Total Annual Reduction through sector plans (ODP tonnes)	-	220.0	**690.0**	897.0	909.0	1,102.0	-	3,848.0
Total Annual Reductions of Annex-A, Group-I substances (ODP tonnes)	468.0	779.0	**1,666.0**	1,549.0	1,209.0	1,202.0	-	6,903

PROJECT DATA	2002	2003	2004	2005	2006	2007	2008	Total
PROJECT COSTS (US $)								
UNDP (Aerosols)			**224,000**					
Support Cost			**13,440**					
World Bank(Aerosols)			**371,910**					
Support Cost			**27,893**					
World Bank(Foam)	-	-	**1,725,000+**	1,050,000	147,564	35,000	-	2,957,564
Support Cost	-	-	**129,375**	78,750	11,067	2,625	-	221,817
UNDP (Refrigeration Manufacturing)	1,288,000	2,200,000*	**1,762,000**	750,000	217,000	181,000	-	6,398,000
Support Cost	111,920	194,000	**156,900**	67,500	19,530	16,290		566,140
UNDP (Refrigeration Servicing)	2,196,758	1,805,987	**500,000**	250,000	159,555	-	-	4,912,300
Support Cost	195,708	160,939	**43,400**	21,300	13,160	-	-	434,507
World Bank(MAC)	1,369,800	1,347,300	**1,347,300**	126,800	125,800	-	-	4,317,000
Support Cost	121,962	119,937	**119,937**	10,092	10,002	-	-	381,930
UNIDO (Solvent)			**1,464,733**					1,464,733
Support Cost			**108,974**					108,974
Total Annual Funding Instalments (US$)	4,854,558	5,353,287	**7,394,943**	2,176,800	649,919	216,000	-	20,465,507
Total Support Costs (US$)	429,590	474,876	**599,919**	177,642	53,759	18,915	-	1,754,701
Total Costs to MLF	5,284,148	5,828,163	**7,994,862**	2,354,442	703,678	234,915	-	22,400,208

FUNDING REQUEST: Approval of US $7,294,943 plus agency support costs of US $592,419, noting that an advance of US $100,000 plus support costs of US $7,500 was approved at the 42nd Meeting from the 2004 tranche of the foam sector.

SECRETARIAT'S RECOMMENDATION	For individual consideration

Notes:

* An advance of US$ 600,000 was released from the second tranche of US$ 2,200,000 in July 2003

\+ An advance of US$ 100,000 was released at 42nd Executive Committee Meeting

++ Phase-out targets in the Solvent Sector (UNIDO) also include 5.6 ODP tonnes of TCA and 16.5 ODP tonnes of CTC, NOT reflected in the above table. 3.0 ODP tonnes and 2.6 ODP tonnes of TCA will be phased out in 2005 and 2006 respectively. 16.5 ODP tonnes of CTC will be phased out in 2005.

+++ Remaining eligible consumption of CFCs used for the production of MDIs.

Approve US $7,394,943 plus agency support costs of US $599,919 as indicated in the column for 2004, noting that US $100,000 plus agency support cost of US $7,500 was released at 42nd Executive Committee Meeting

BACKGROUND

1. In Decision 37/51, the Executive Committee approved an Agreement with the Government of Indonesia for the complete phase-out of CFCs in the refrigeration manufacturing sector at a total cost to the Multilateral Fund of US$6,964,140 including support costs, which was agreed in principle, to be implemented by UNDP.

2. At its 38th Meeting, on behalf of the Government of Indonesia, UNDP and the World Bank submitted two national CFC plans for phasing-out CFCs in the refrigeration servicing sector (UNDP) and the mobile air–conditioning (MAC) sector (World Bank). In Decision 38/47, the Executive Committee approved an Agreement with the Government of Indonesia governing the phase-out of CFCs in the refrigeration sector in Indonesia at a total cost to the Multilateral Fund of US$17,009,877 including support costs, which was agreed in principle, to be implemented by UNDP and the World Bank. The Agreement included and superseded both a previous agreement for phase-out in refrigeration manufacturing and new phase-out plans for the MAC and refrigeration servicing sectors first presented to the 38th Meeting.

3. As stated in the Agreement, the Executive Committee and the Government of Indonesia acknowledge the intention to extend the agreement to cover total phase-out of the consumption of Annex A, Group I substances (CFCs) in Indonesia following future consideration of additional resources for sector plans for phase-out in the foam and aerosols sectors in Indonesia.

4. In Decision 42/38, the Executive Committee approved in-principle a sector plan for the phase-out of CFCs in the foam sector in Indonesia at a total cost of US$3,179,381 including support costs, to be implemented by the World Bank. The Committee also approved from within this total, funds of US $100,000 plus support costs to enable activities to commence. The Committee requested that the sector plan be incorporated into a national CFC phase-out agreement for Indonesia.

5. Also at its 42nd Meeting, the Executive Committee considered a sector plan for the phase-out of CFCs in the aerosol sector in Indonesia, but deferred it, requesting, inter alia that a draft national CFC phase-out agreement be provided. The draft agreement would include CFC phase-out in the refrigeration sector (in accordance with the agreement for phase-out of CFCs in the refrigeration sector in Indonesia, approved at the 38th Meeting), plus the project proposal for the phase-out of residual CFCs in the foam sector approved in principle at the 42nd Meeting and the revised sector plan for phasing out the use of CFCs in the aerosol sector (Decision 42/39).

Sectoral phase-out submitted to the 44th Meeting

6. On behalf of the Government of Indonesia, the following sectoral plans have been submitted to the 44th Meeting:

(a) A revised national strategy for phasing out the use of CFCs in the aerosol sector at a total cost of US $618,317, submitted by the World Bank;

(b) A report on implementation activities in 2003 and 2004 in the foam and refrigeration sectors in Indonesia, together with annual implementation plans for

2005 and a request for funding of the 2005 tranches of each sector plan, submitted by UNDP;

(c) A sector plan for phase out of the remaining consumption of CFCs, CTC and TCA in the solvent sector at a total cost of US $2,230,670, submitted by UNIDO

Proposal for a national phase-out plan

7. As a result of the above, a total of six separately prepared sector plans (including three in refrigeration manufacturing and servicing) are proposed to be combined into a national phase-out plan that will address the consumption of all CFCs in Indonesia in addition to the total consumption of TCA (16.5 ODP tonnes) and CTC (5.6 ODP tonnes).

8. The documentation and project management requirements to effect the transition from sector plans to a single national phase-out plan have been challenging and the documentation is extensive. The advantage is that Indonesia will have the opportunity to monitor and verify CFC consumption and phase-out at a national level. Indonesia will also be able to benefit from the overall flexibility inherent in a national agreement. In circumstances where consumption is being phased out from individual projects already approved by the Executive Committee and through implementation of sector plans in various sectors, it is likely that the monitoring and verification requirements for consumption limits contained in individual sector plans could not be satisfactorily met other than through combination at the national level.

9. UNDP has been appointed as the lead agency for co-ordination of the national CFC phase-out plan for Indonesia. Accordingly, on behalf of the Government of Indonesia, UNDP has submitted to the 44th Meeting a draft agreement for a national CFC phase-out plan covering the refrigeration and foam sectors already agreed in principle and the sector plans for the aerosol and solvent sectors also submitted for consideration at this meeting.

CFC consumption in Indonesia

10. The CFC baseline for compliance in Indonesia is 8,332.7 ODP tonnes. As reported by the Government of Indonesia under Article 7 of the Montreal Protocol, the 2002 and 2003 CFC consumption levels were 5,506.3 and 4,829.3 ODP tonnes, respectively (a reduction of 677.0 DP tonnes.

11. A comparison between the 2002 and 2003 progress report on the implementation of the Indonesia country programme submitted to the Fund Secretariat indicates that CFC reductions in consumption levels were achieved in the foam sector (a reduction of 479.5 ODP tonnes), refrigeration manufacturing (90 ODP tonnes), refrigeration servicing (120 ODP tonnes) and solvents (7.2 ODP tonnes).

12. As of the 43rd Meeting, the Executive Committee has approved funding for Indonesia for the phase-out of 6,114.4 ODP tonnes of CFCs. As of December 2003, a total of 3,318.8 ODP tonnes have been phased out and 2,795.6 ODP tonnes are associated with projects under current implementation.

Remaining CFC eligible for funding

13. As of the 43rd Meeting, the CFC consumption remaining eligible for funding for Indonesia, calculated in accordance with the methodology adopted in Decision 35/57 is 258.5 ODP tonnes. The CFC consumption in the sector plan for the aerosol sector is 150 ODP tonnes. The CFC consumption addressed in the solvent sector plan is 78.4 ODP tonnes. If both projects are approved, Indonesia would have a remaining eligible consumption of 30.1 ODP tonnes, which the Government has indicated it wishes to allocate to future MDI projects. These figures are reflected in the submitted projects and will be included in the draft agreement.

Contents of this document

14. To facilitate the review of the sectoral components of the proposed national CFC phase-out plan for Indonesia by members of the Executive Committee, the document has been arranged in the following six parts:

(a) Part A, contains the description and the Secretariat's comments on the aerosol sector plan;

(b) Part B, addresses the 2005 annual implementation programme for the foam sector that was approved in principle at the 43rd Meeting;

(c) Part C, addresses the report on 2003 and 2004 activities and the 2005 annual implementation programme for the refrigeration sector (including manufacturing and servicing);

(d) Part D, addresses the solvent sector plan;

(e) Part E, provides the Secretariats comments on the draft agreement for the national CFC phase-out plan for Indonesia; and

(f) Part F, provides the recommendations by the Secretariat for each of the four sectoral plans and the draft agreement between the Government of Indonesia and the Executive Committee for the national CFC phase-out plan in Indonesia.

PART A: NATIONAL STRATEGY FOR PHASING OUT THE USE OF CFCS IN THE AEROSOL SECTOR

PROJECT DESCRIPTION

15. The objective of the national strategy for phasing out the use of CFCs in the aerosol sector in Indonesia (Aerosol Strategy) is to phase out CFC consumption in this sector by 1 January 2008 through a combination of policy actions, awareness-creating activities, technical assistance programmes and direct investment for the conversion of aerosol fillers.

Aerosol projects approved so far

16. At its 11th Meeting, the Executive Committee approved a technical assistance programme in the aerosol sector in Indonesia and allocated US $238,000 to the World Bank for its implementation. The project was completed in 1997.

17. At its 22nd Meeting, the Executive Committee approved funding of US $1,175,340 for a project for the conversion of the aerosol filling line at PT Candi Swadaya Sentosa, and the establishment of a filling centre in the plant to satisfy the needs of 20 smaller companies to fill with hydrocarbon aerosol propellant. A total of 460 ODP tonnes of CFCs would be phased out through the implementation of the project. Implementation of the project was delayed due to the financial crisis in South East Asia and the significant impact it had on the market. However, as reported in the Aerosol Strategy, the project is now completed and the filling centre went into operation in October 2004.

Summary of CFCs still in use in the aerosol sector

18. Based on the information presented in the Indonesia country programme and the investment project approved by the Executive Committee, manufacturers of aerosol insecticide, paint aerosol products and water-based aerosols (e.g., shaving creams, mousses, room fresheners, starches and cleaners) were completely converted to non-CFCs technologies.

19. During the preparation of the Aerosol Strategy, five aerosol sub-sectors were surveyed in which CFCs were possibly used. CFC consumption in the aerosol sector was estimated at about 550 tonnes. This estimate was based on comments from aerosol canister suppliers and broad assumptions, since the few aerosol enterprises that were identified were not willing to provide relevant information on their operations (baseline equipment, installed capacity and current production with CFC propellants). The breakdown of consumption has been estimated as follows:

(a) 400 ODP tonnes for manufacturers of body sprays in the informal sector, already covered under the approved project for PT Candi Swadaya Sentosa;

(b) 95 ODP tonnes for manufacturers of body sprays in the formal sector. Of this consumption, 80 ODP tonnes are consumed by one enterprise (Yulia Kosmetik);

(c) 15 to 60 ODP tonnes of CFCs in industrial applications.

20. Locally made pharmaceutical products, including metered dose inhalers (MDIs), are under the responsibility of the Ministry of Health. In Indonesia, MDIs and other aerosol pharmaceutical products are produced by P.T Astra Zeneca, P.T. Boehringer Ingelheim Indonesia, P.T. Glaxo, P.T Otsuka, P.T. Daya Varia and Konimex. Import of CFCs for MDIs and pharmaceutical products is allowed by the regulations (Ministerial Decree No 789 and 790). The phase-out of CFCs used in the manufacturing of pharmaceuticals and in the MDI sector is not included in the Aerosol Strategy. The Government of Indonesia will request assistance from the Fund for phasing out about 30 tonnes of CFCs used in MDIs when an alternative technology is available and can be transferred at reasonable costs. Until then, they will continue to be considered essential uses under Indonesian regulations.

Government policies

21. In 1990, the Government of Indonesia issued a regulation that prohibited the use of CFCs in cosmetics aerosols. However, there are still a large number of CFC-based body sprays and cosmetics being produced in the country. The decree has had little effect in phasing out CFCs in the aerosol sector, "other than to drive companies underground." As reported in the Aerosol Strategy, this situation "has been an enormous impediment to locating and assisting makers of aerosol cosmetics." Furthermore, "finding these companies is always difficult, and in some cases impossible."

22. The Government of Indonesia is proposing to ban the use of CFCs in the aerosol sector by January 2008. The Aerosol Strategy was formulated with a plan to make it possible to enforce the general ban on CFC use for aerosol filling.

Components of the Aerosol Strategy

23. The Aerosol Strategy as submitted proposes the phase-out of 102.2 ODP tonnes of CFCs in the aerosol sector at a total cost of US $618,317, with the following three components:

(a) Technical assistance programme (US $194,600): to assist the Government of Indonesia in addressing the large informal aerosol sector still using CFC propellants. It will include awareness-creating activities addressing both the consumer side and the aerosol industry, technical assistance in reformulating aerosol products and implementing safety measures in filling operations, and safety training for aerosol fillers that have already converted to non-CFC technologies. Implementation of this activity will result in the phase-out of 22.2 ODP tonnes;

(b) Conversion from CFC to hydrocarbon aerosol propellants (HAPs) at P.T Yulia, one of the larger aerosols filling plants in Indonesia (US $351,457) with an average CFC consumption of 80 ODP tonnes of CFCs and production of 4.97 million body spray products per year (under retroactive modality since the company was converted to HAPs in 2003-2004). Funding requested is based on standard costs for typical conversion of aerosol filling companies and include filling equipment, storage tanks, open filling area, safety equipment and measures,

safety review and training (operating savings of US $12,593 were considered in the calculation of the incremental costs); and

(c) Project management unit under the Ozone Unit (US $48,000) to, among other things: prepare implementation procedures for eligible aerosol enterprises that would participate in the technical assistance programme, review and approve proposals and data submitted by eligible enterprises; employ technical experts for training and supervision; prepare annual progress reports on the implementation of the Aerosol Strategy; and organize three technical seminars.

SECRETARIAT'S COMMENTS

Sectoral consumption

24. In the Aerosol Strategy, CFC consumption in the aerosol sector is estimated at 220 ODP tonnes. However, the strategy addresses the consumption of only 102.2 ODP tonnes through a stand-alone investment project (80 ODP tonnes) and a technical assistance programme (22.2 ODP tonnes).

25. After taking account of the 30.1 ODP tonnes of CFCs used for MDI manufacturing, which the Government of Indonesia wishes to retain as eligible consumption, and the consumption covered by proposals submitted to the 44th Meeting, the remaining CFC consumption eligible for funding in Indonesia would be 47.8 ODP tonnes. After discussions with the Secretariat, the World Bank agreed to revise the Aerosol Strategy to address a total CFC consumption of 150 ODP tonnes in the aerosol sector by adding the remaining unallocated eligible consumption of 47.8 ODP tonnes to the technical assistance component (investment project: 80 ODP tonnes; technical assistance: 70 ODP tonnes).

CFC conversion at P.T. Yulia

26. The Secretariat pointed out that the retroactive funding requested for the conversion of the aerosol filling line at P.T. Yulia (US $351,457) was very high, and not all of the items requested were incremental. Specifically:

(a) The baseline equipment was purchased in 1989 from a leading aerosol equipment manufacturer. Hydrocarbons have been used as aerosol propellants for more than 20 years, and therefore aerosol equipment manufactured by leading companies is capable of using both CFC and hydrocarbon propellants;

(b) In general, the only equipment that is being replaced in aerosol projects is the propellant filler and the propellant pump crimper, not the entire aerosol filling line;

(c) Operating savings associated with the conversion were estimated at US $0.002/can, or about US $100,000/year. However, a factor of 0.4 has been introduced to consider the various sizes of cans that are filled at the plant; and

(d) The cost-effectiveness value of similar sized aerosol projects approved by the Executive Committee have ranged from US $2.17/kg to US $3.35/kg.

27. In view of the above observations, the Secretariat estimated the eligible incremental cost of the project at US $224,000, with the implementing agency fees calculated at 6 per cent of the total project cost (Decision 29/72 on agency fees for retroactive funding).

28. The World Bank revised the Aerosol Strategy in light of the Secretariat's comments and observations. The total agreed cost of the project is US $595,910 (at US $3.97/kg) with the following breakdown:

(a) Conversion from CFC to hydrocarbon aerosol propellants (HAPs) at P.T Yulia, at a revised cost of US $224,000 (to be implemented by UNDP);

(b) Technical assistance programme at a revised cost of US $317,910 with CFC phase-out of 70 ODP tonnes (to be implemented by the World Bank); and

(c) Project management unit under the Ozone Unit at a cost of US $54,000 (to be implemented by the World Bank).

29. The remaining 30.1 ODP tonnes of CFC consumption eligible for funding is for pharmaceutical aerosol applications including MDIs. The Government of Indonesia could submit a request for the phase-out of this CFC consumption to a future meeting of the Executive Committee.

PART B: PHASE-OUT OF CFCS IN THE FOAM SECTOR: 2005 ANNUAL IMPLEMENTATION PROGRAMME

PROJECT DESCRIPTION

30. On behalf of the Government of Indonesia, UNDP as lead agency has submitted for the consideration of the Executive Committee the 2005 work programme of the sector plan for phase-out of residual CFCs in the foam sector, which was approved in principle at the 42nd Meeting. At the same meeting, the Executive Committee approved an amount of US $100,000 for the World Bank to initiate activities essential for the implementation of that sector plan. The amount was to be offset against the amount approved in principle for the plan and accounted for in the funding disbursement schedule of the eventual CFC phase-out agreement.

31. The breakdown of the overall funding approved in principle, the proposed disbursement schedule and annual CFC consumption and phase-out control targets the foam sector are indicated below:

Parameter	2004	2005	2006	2007	2008	Total
Annual CFC phase-out target in the foam sector plan (ODP tonnes)	0	129.8	155.7	66.5	0	352.0
Project cost (US $)	1,725,000*	1,050,000	147,564	35,000	0	2,957,564
Support cost (US $)	129,375	78,750	11,067	2,625		221,817
Total cost (US$)	1,854,375	1,128,750	158,631	37,625		3,179,381

* An initial funding of US $100,000 was released at the 42nd Meeting

32. With the funding approved at the 42nd Meeting, the World Bank initiated implementation activities. The country and the World Bank agreed upon implementation arrangements. The management of the investment scheme of the foam sub-sector commenced with the signing of the Sub-grant Agreement between the Ministry of Environment and a local company Dasa Windu Agung (DWA), as the group coordinator, and representative of the beneficiaries. A work plan for investment activities and TOR for the Group Coordinator were developed. The Sector Plan Management and Coordination Unit (SPMCU) co-ordinates the policy and regulatory activities. For the non-investment component (public awareness and technical assistance), it was decided that the Ministry of Environment will request three qualified firms to send expressions of interest, and will also sign a separate Sub-grant Agreement with the selected firm by end of October 2004.

2005 implementation programme

33. The foam component of the 2005 annual implementation programme describes in sufficient detail the investment and non-investment activities planed for 2005. The World Bank plans to convert 20 enterprises producing rigid polyurethane foam with a total consumption of 215.1 ODP tonnes; the reduction target for the foam sector component for 2005 is foreseen to be 129.8 ODP tonnes.

34. The objective of the 2005 Annual Implementation Programme for the Foam Sector Plan is to ensure that the national CFC-11 phase-out target of 130 ODP tonnes will occur by the end of 2005. Industrial actions for the foam sector will focus on validation surveys of enterprises in the rigid foam sub-sector to verify baseline information, to assess current conditions and to confirm the chosen conversion technology. The next steps will be to initiate procurement and subsequent delivery, installation, commissioning and trial. All contracts for the first annual programme of 130 ODP tonnes phase-out will be signed in 2004. The World Bank has so far identified 20 enterprises with a total consumption of 215 ODP tonnes to be phased out. Fifteen of those enterprises will be converted in 2005.

35. An awareness raising programme will be developed, to inform users about the necessity of phase-out of CFC in the industrial foam sector, about the Foam Sector Plan and about the country's commitment. The objective is to encourage the propagation of low cost, technically suitable substitutes to replace CFC-11 blowing agent.

36. A series of workshops will be conducted to develop policy instruments for the CFC-11 PU foam sector. The objective is to inform the targeted audience about the foam sector phase-out programme and the government obligation to comply with agreed-upon overall and annual phase-out targets. This will be accompanied by meetings and discussions with equipment suppliers and chemical suppliers to assess the current application technology using CFC blowing agent and criteria for the selection of substitutes.

37. A Group Coordinator will start a number of management activities to handle the day to day activities under the foam sector phase-out plan, such as the set up of a team, training and awareness of personnel, management of the project, and the development of a website.

38. Monitoring activities will commence, including the hiring of a local consultant to evaluate participating enterprises that are to be included in the programme. These activities will also include monitoring implementation, pre-installation and post-commissioning of equipment, and the set up of a study on the foam industry in Indonesia.

SECRETARIAT'S COMMENTS

39. The Secretariat noted that the World Bank had established a set of annual reporting criteria. The annual work programme would contain the following sections:

(a) Sector phase-out schedule;

(b) Status of all activities of previous year(s) and any agreed remedial actions for the current year

(c) Objectives of following year's annual programme, phase-out targets and funding requirements for activities in the following year;

(d) Description of activities in the following year such as enterprise level activities, policies to be implemented and technical assistance activities; and

(e) Performance indicators for the annual program.

40. Although the 2005 annual work programme does not provide the full level of detail suggested by the World Bank in the project proposal, it is sufficient to provide a basis for the approval of the remaining part of the first annual tranche. The Secretariat also noted that the contents of the annual implementation plan proposed by the World Bank provide a very thorough basis for evaluating progress and should be followed in the future.

PART C: PHASE-OUT OF CFCS IN THE REFRIGERATION SECTOR: REPORT ON 2003 IMPLEMENTATION AND 2005 ANNUAL IMPLEMENTATION PROGRAMME

PROJECT DESCRIPTION

41. On behalf of the Government of Indonesia, UNDP as lead agency has submitted for the consideration of the Executive Committee the 2004 annual progress report covering the refrigeration sector plan for ODS phase-out in the refrigeration sector in Indonesia, including the commercial refrigeration manufacturing, the refrigeration servicing and the MAC servicing sub-sectors. Together with the report, UNDP has submitted a proposed implementation programme for 2005 for these projects.

42. At its 38th Meeting the Executive Committee approved an Agreement encompassing total CFC phase-out in the refrigeration sector in Indonesia with a funding level of US $15,627,300. The approved overall funding of disbursement schedule and annual CFC consumption and phase-out control targets of the Agreement are reproduced below:

Parameter	2002	2003	2004	2005	2006	2007	2008	Total
Annual CFC Consumption Limit in the Refrigeration Sector (ODP tonnes)	NA	3,218	3,018	2,408	1,698	966	0	N/A
Annual CFC phase-out target in the Refrigeration Manufacturing Sub-Sector (ODP tonnes)	0	90*	300	300	300	241	0	1,231
Annual CFC phase-out target in the Refrigeration Servicing Sub-sector (ODP tonnes)	0	0	200	300	322	250	0	1,072
Annual CFC phase-out target in the MAC Sub-sector (ODP tonnes)	0	220	110	110	110	365	0	915
Annual CFC phase-out target in the Refrigeration Sector (ODP tonnes)	0	310	610	710	732	856	0	3,218
UNDP (Refrigeration manufacturing)	1,288,000	2,200,000 **	1,762,000	750,000	217,000	181,000	0	6,398,000
Support Cost	111,920	194,000	156,900	67,500	19,530	16,290		566,140
UNDP (Refrigeration servicing)	2,196,758	1,805,987	500,000	250,000	159,555	0	0	4,912,300
Support Cost	195,708	160,939	43,400	21,300	13,160	0	0	434,507
World Bank (MAC)	1,369,800	1,347,300	1,347,300	126,800	125,800	0	0	4,317,000
Support Cost	121,962	119,937	119,937	10,092	10,002	0	0	381,930

* Through ongoing projects

** An advance of US$ 600,000 was released from the second tranche of US$ 2,200,000 in July 2003 for the UNDP Refrigeration Manufacturing Sector Phase-out Plan

43. The report on progress contains an overview of progress since July 2003 for the commercial refrigeration manufacturing sub-sector, and since December 2002 for the refrigeration servicing and MAC servicing sub-sectors. It also contains a summary of activities carried out to date under the refrigeration sector implementation plan for 2004 and the preliminary activities carried out in the foam sector in 2004. The proposal also contains Annual Implementation Programmes for 2005 covering the three refrigeration sub-sectors accompanied by requests to release the respective funding tranches.

Refrigeration Manufacturing Sub-sector - UNDP

44. The CFC phase-out activities at six individually implemented projects were completed during 2003, leading to a phase-out of 90 ODP Tonnes, in accordance with the agreed phase-out target for this sector for 2003.

45. In regard to 2004 activities, preparations commenced in 2003 and equipment procurement was completed in September of that year. Installation, commissioning and training is in process at the respective project sites. Activities at 13 enterprises were completed as of August 2004. It is expected that activities at the remaining enterprises would be completed by late 2004. UNDP indicates that on this basis the phase-out target of 300 ODP Tonnes for 2004 will be achieved or exceeded. Some US $1.6 million was committed for procurement of equipment for the first group of participating enterprises.

46. The second batch of 34 participating enterprises was endorsed by the Government for implementation by UNDP in January 2004. Equipment purchase orders for the second batch were issued by mid-2004. The cumulative CFC consumption of these enterprises amounts to about 231 ODP tonnes.

Refrigeration servicing sub-sector - UNDP

47. The first tranche of US $2,196,758 was received by UNDP in December 2002 for implementation of recovery/recycling and pilot retrofitting/replacement demonstration programmes, and training activities. The recovery/recycling programme targeted about 385 servicing establishments during 2003. About 188 larger-sized servicing establishments were identified and endorsed by the Government. Additionally, about 134 training establishments were identified, for provision of demonstration recovery/recycling equipment. The procurement of recovery/recycling equipment for the first batch of participating servicing and training establishments was completed in 2004. The equipment is presently being distributed.

48. The implementation of pilot retrofitting/replacement demonstration programmes started with preliminary screening of potential beneficiaries. A total of 68 entities were identified (supermarkets, hotels, hospitals, restaurants, marine and industrial installations). The development of a mechanism for the above entities to participate in the programme, and arrangements to provide assistance to these end-users are being finalized. The demonstration retrofitting/replacement activities are expected to be completed for these end-users between late 2004 and mid-2005, which in turn is expected to accelerate retrofitting/replacement actions in the end-user sector as a whole, leading to a reduction in CFC use for servicing by about 40 ODP tonnes during 2004.

49. The master trainers programme was initiated during 2003. Training sessions were organized in four major cities, and were attended by 91 participants during October and November 2003. The master trainers programme is ongoing to meet the target of training 150 master trainers during 2004. Preparation is underway to implement the training programme for technicians. A combined workshop and coordination meeting to facilitate development of a National Competency Standard for Refrigeration Technicians was held in August 2004 with the

representatives of the related government departments and industry associations. The expected outcome is to expedite the adoption of training standards during 2005.

Mobile Air-conditioning Sub-sector

50. The main objective of the project is to increase the capacity of MAC servicing establishments to apply good practices in MAC servicing operations by providing equipment for recovery and recycling of refrigerants and through training. The project was intended to achieve a phase-out of 220 ODP tonnes of CFC-12 by the end of 2003. 216 MAC servicing workshops were verified and endorsed for participation in the programme during 2003. The 216 enterprises account for a cumulative consumption of 254.5 ODP tonnes, which exceeds the 2003 phase-out target of 220 ODP tonnes. The distribution of MAC recovery and recycling equipment is expected to be beneficial only if the operators of such equipment are provided with the necessary skills and knowledge base for proper use of this equipment, which would result in emission reductions.

51. The train-the-trainers activity included in the MAC sector plan was designed to create a pool of trainers that will train MAC technicians. The activity consists of developing curriculums, recruiting instructors, and identifying trainee candidates, in collaboration with training establishments already identified during the preliminary stage. This process is underway. In 2004, four workshops for MAC servicing personnel were held in Jakarta and one each in Bandung, and Surabaya. These workshops were attended by 235 service shop owners or their representatives, prior to receiving the recycling machines. Letters of commitment were obtained from each service shop owner.

52. The train-the-trainers workshop was completed in September 2004 for 20 training centres. The trainers will be certified after successful completion of training and after passing the certification exam. By early October, the selected trainers will provide training to enterprises in selected training centres. Technician training is expected to be carried out in the fourth quarter of 2004. There are 216 technicians to be trained in Java. In total, more than 300 technicians have registered to participate in the training.

Awareness, policy and regulation programmes

53. In 2003–2004, a series of awareness actions were undertaken for the general public, owners of refrigeration establishments and servicing technicians.

54. The Ministry of Environment has continued to follow up on the procedures needed to amend existing regulations on CFC imports (instituting a realistic licensing/quota system and new regulations for registration/reporting CFC usage), with the relevant government departments and stakeholders.

Auditing and verification

55. In compliance with the provisions of the Agreement, a performance verification by a national independent entity was commissioned by UNDP in late September 2004 to verify that the agreed CFC phase-out targets and consumption limits for 2003 were achieved. The

performance verification will verify the national level of CFC consumption in the refrigeration sector for 2003, based on the data available from the designated importer(s) and the data available from the relevant ministries and from customs. In addition, through plant visits to a select number of completed projects and the inspection of relevant records at these projects, the CFC phase-out achieved in the refrigeration manufacturing sub-sector and the MAC sub-sector will be verified.

SECRETARIAT'S COMMENTS

56. The Secretariat analyzed the information on completed activities provided in the 2003-2004 progress report in relation to the CFC phase-out targets for 2003 outlined in the Agreement, namely the phase-out of 90 ODP tonnes in refrigeration manufacturing and 220 ODP tonnes in the MAC sub-sector, which are reported as accomplished. There were no phase-out targets in 2003 for the refrigeration servicing sector.

Refrigeration manufacturing

57. The phase-out in refrigeration manufacturing has been confirmed through the project completion reports received by the Secretariat.

Refrigeration MAC servicing

58. According to the plan for the MAC sub-sector, the distribution of MAC recovery and recycling equipment to the beneficiary enterprises was to occur only after the operators had been trained, so that reductions in emissions would be realised. According to the progress report, the first stage of the train-the–trainers programme was completed in 2004. The training of technicians commenced in the 4th quarter of 2004. However the World Bank clarified that in June 2004, 110 recovery and recycling machines were distributed to MAC servicing workshops, in advance of the training programmes Given the above, the reported reduction of 220 ODP tonnes in consumption in the MAC sub-sector may have occurred due to external factors such as replacement of retired vehicles using CFC-12-based MAC systems with new vehicles equipped with HFC-134a systems, because the conditions indicated in the sector plan as contributing to the phase-out appear not to have been fully realised. The reported reductions in CFC consumption in the refrigeration manufacturing and servicing sub-sectors in 2004 should be verified in 2005 and included in the 2005 progress report.

Refrigeration servicing

59. The Secretariat drew UNDP's attention to recent recommendations of the Executive Committee related to the implementation of recovery and recycling programmes, and to the relevant language introduced in the recent agreements: "the recovery and recycling programme for the refrigeration servicing sector would be implemented in stages so that resources can be diverted to other activities, such as additional training or procurement of service tools, if the proposed results are not achieved, and will be closely monitored." The Secretariat suggested that UNDP should endeavour to ensure that these recommendations were reflected in the 2005 annual implementation plan. UNDP clarified that, based on lessons learnt in recovery and recycling programmes elsewhere, UNDP is exploring, together with the Government of Indonesia, ways of

instituting a realistic import quota system for designated importers to monitor and control the availability of CFCs. This is expected to result in the availability of imported CFCs at higher prices, thus making recycled and reclaimed CFCs relatively more attractive. A market-driven arrangement will be created through the establishment of centralized, commercially operated reclamation facilities. This will ensure that recovery and recycling of CFCs will be economically competitive.

Issues related to verification

60. In regard to verification, the Secretariat pointed out to UNDP that the implementation modalities as outlined in the Agreement for the refrigeration sector plan stipulate that an annual independent audit would be conducted by UNDP to verify CFC consumption levels, including spot checks and random visits. The policy and management support component also includes the establishment and operation of a decentralized mechanism for monitoring and evaluation of Plan outputs in association with provincial regulatory environmental bodies for ensuring sustainability.

61. UNDP's progress report indicates that an independent auditor was subcontracted in late September 2004 to conduct verification of the national level of consumption in the refrigeration sector through auditing of the production, import, and export data. Verification would also be performed at enterprises with ongoing projects to verify their baseline consumption level, and to check that actual phase-out took place in 2003. The auditor would also verify that the activities stipulated in the 2003 Annual Programme had been carried out.

62. UNDP has indicated that it expects to have the performance verification report available prior to the 44th Meeting of the Executive Committee, and furthermore expects that a supplementary report will be prepared for the review of the Secretariat and the Executive Committee. However, at the time of preparation of this evaluation document, neither of the two above reports had been submitted to the Secretariat for review.

PART D: PLAN FOR TERMINAL PHASE-OUT OF CFC-113, CTC AND CTA IN THE SOLVENT SECTOR IN INDONESIA

PROJECT DESCRIPTION

63. The Government of Indonesia has submitted for consideration by the Executive Committee at its 43rd Meeting a plan for terminal phase-out of ODSs in the solvent sector. Implementation of the project will lead to the phase-out of 78.4 ODP tonnes of CFC-113, 16.5 ODP tonnes of CTC and 5.6 ODP tonnes of TCA, which represents the remaining consumption of these substances in the country. The funding requested is US$2,230,670.

CFC-113, CTC and TCA consumption

64. The Table below shows the consumption of CFC-113, CTC and TCA in Indonesia between 1999 and 2003. The baseline consumption for CTC is zero ODP tonnes and for TCA is 13.3 ODP tonnes.

ODP tonnes	1999	2000	2001	2002	2003
CFC-113[1]	-	-	-	66	78.4
CTC[2]	0	0	0	16.5	16.5
TCA[2]	20	-	20	8.8	10.7

Notes 1. Data from report on progress with implementation of the country programme.
2. Data reported under Article 7.

65. The Ozone Unit and UNIDO worked closely with the responsible Ministries of Indonesia, importers and identified ODS solvent users to quantify the remaining ODS consumption in this sector. A questionnaire was sent to all potential ODS solvent users; selected users were visited by the local consultant and by a UNIDO representative.

66. Based on the survey conducted for the preparation of the project proposal, it was found that:

(a) CTC is used to formulate solvent blends for electrical and metal cleaning at one enterprise Pt. Apeka Industrial Servindo);

(b) Seven TCA users were identified with a total consumption of 23.24 ODP tonnes. However, one enterprise (Pt. Agunng Kimia Jaya Mandiri with a total consumption of 12.5 ODP tonnes) was found to be ineligible for funding, and part of the consumption of other two enterprises was converted in 2001. Therefore, the remaining unaddressed TCA consumption amounts to 5.6 ODP tonnes:

Company	**ODP tonnes/year**	**Uses**
Pt. Garuda, Aero Asia (*)	3.22	Dry cleaning (textiles)
Pt. Merpati Nusantara Airline(*)	1.90	Metal cleaning
Astra Group (9 companies)	1.92	Metal cleaning (auto parts)
Pt. Solindah Kita	0.90	Shoe soles
Pt. Accurai Jakarta	1.30	Shoe soles
Pt. Apeka Industrial Servindo	1.50	Cleaning formulations
Pt. Agunng Kimia Jaya Mandiri(**)	12.50	Cleaning formulations

(*) Retroactive project
(**) Not eligible for funding

(c) Five CFC-113 users were identified with a total consumption of 78.4 ODP tonnes:

Company	**ODP tonnes/year**	**Uses**
Astra Group (9 companies)	12.17	Metal cleaning (auto parts)
Pt. Solindah Kita	21.82	Shoe soles
Pt. Accurai Jakarta	22.54	Shoe soles
Pt. Tras Rantai Mas	13.84	Shoe soles
Pt. Apeka Industrial Servindo	8.00	Cleaning formulations

67. Other small solvent users who may subsequently be identified will only receive technical assistance (i.e., workshops) to achieve the phase-out of ODS solvents consumption.

Proposed phase-out strategy

68. The solvent sector phase-out plan will enable Indonesia to phase-out the remaining consumption of ODS solvents (TCA, CTC and CFC-113) by 1 January 2006. Investment, non-investment, technical assistance and capacity building activities are proposed to achieve this target.

69. At the plant level, the investment component of the plan will comprise, *inter alia*, an assessment of the technical requirements of conversion; the scope of international and local procurement of equipment; development of technical specifications and terms of reference for procurement; site preparation; customs clearance and delivery; installation and start-up; trails, training and plant commissioning; and destruction of baseline equipment.

70. The sector plan also includes a technical support component for ensuring that ODS phase-out activities are technically sound and sustainable. The expected results from the implementation of this activity are: the establishment of quality and performance standards for the ODS-free products and applications within the sector; interaction with the user industry for

providing technology assistance for sustainability of ODS-free applications, through technical workshops and meetings; and establishment of a training programme for production operators and technicians, to sustain the ODS-free technologies.

71. The implementation of the phase-out plan will need to be closely co-ordinated with the various policy, regulatory, fiscal, awareness and capacity-building actions undertaken by the Government of Indonesia to ensure that its implementation is consistent with the Government's priorities. The Solvent Sector plan will be managed and co-ordinated by a Policy and Management Support Committee, comprised of a co-ordinator to be designated by the Government and supported by representatives and experts from UNIDO, and will include, among others:

(a) Establishment of a policy development and enforcement programme, covering legislative and regulatory actions to ensure compliance by the industry with the phase-out obligations

(b) Development and implementation of training programmes and awareness and capacity-building activities for Government departments, legislators, decision-makers and other institutional stakeholders;

(c) Preparation of annual implementation plans including determining the sequence of enterprise participation in planned sub-projects, and verification and certification of ODS phase-out in completed sub-projects through plant visits and performance auditing; and

(d) Reporting of implementation progress of the Plan for the annual performance-based disbursement.

Cost of the project

72. The total cost of the project, as submitted is US $2,230,670 (US $21.12/kg). The cost of the project was calculated on the basis of the consumption of the three ODS solvents and using a cost effectiveness values of US $10/kg for CTC, US $36/kg for TCA and US $19/kg for CFC-113. The cost breakdown is as follows:

Description	**Cost (US$)**
Capital cost	2,040,670
Policy and management support component	135,000
Technical Component	55,000
Total	**2,230,670**

Project implementation structure

73. The overall management of the phase-out plan will be carried out by UNIDO with the assistance of Government of Indonesia. The Ozone Unit will be responsible for monitoring the overall implementation of the phase-out plan; pursue the promulgation and enforcement of

policy and legislation; and assist UNIDO with the preparation of annual implementation plans and progress report to the Executive Committee.

SECRETARIAT'S COMMENTS

ODS consumption

74. The Secretariat noted that the ODS consumption figures were presented as average consumption levels by sub-sector rather than the actual consumption at the enterprise level. Additionally the project proposes the phase-out of 16.5 ODP tonnes of CTC; however, in the period 1998 to 2001 the Government of Indonesia reported zero CTC consumption to the Ozone Secretariat under Article 7 and the CTC baseline consumption is zero.

75. Subsequently, UNIDO reported that, further to an official request by the Ministry of the Environment of Indonesia in March 2002, UNIDO carried out a national survey of ODS solvents uses in the country. In order to identify all solvent users, UNIDO and the Government of Indonesia conducted a workshop with solvent distributors, users and their representatives. The manufacturing processes and consumption levels were verified and alternative solutions were discussed. Furthermore, prior to the project submission, the Government of Indonesia visited independently the identified firms and checked again the consumption figures. UNIDO concluded that the ODS consumption in the project proposal had been fully verified at the enterprise level.

76. Regarding CTC consumption, UNIDO informed the Secretariat that due to the economical and financial crisis which started in 1997, the import of various ODSs was disrupted. The quantity of CTC still used by a single manufacturer of various cleaning agents was covered from stocks during this period and accurately reported in 2002 and 2003.

77. Regarding TCA consumption UNIDO clarified that the difference between consumption by identified eligible users (5.6 ODP tonnes) and the data reported under Article 7 (10.7 ODP tonnes) was due to consumption in an enterprise that was not eligible for funding.

Baseline equipment and alternative technologies

78. The Secretariat noted that at the enterprise level, limited information was included on the baseline equipment and on the manner the ODS solvents are being used in the current cleaning processes. On this basis, the eligibility for the funding requested could not be fully assessed. Furthermore, the section on alternative technologies provided only an overview of what is currently available in the market, but did not indicate however, what solutions have been selected for the specific circumstances in Indonesia.

79. UNIDO reported that all the enterprises to receive funding has been visited. A number were using modern cleaning and blending techniques with equipment designed to handle CFC-113, TCA and CTC safely. In particular, the three enterprises manufacturing shoe soles, that account for over 50 percent of the project costs, are currently cleaning their products in

modern open-top degreasers with a freeboard zone. It is proposed to replace the CFC-113 and TCA currently used by these enterprises with perchloroethylene.

80. UNIDO indicated that the options for retrofitting of the existing degreaser tanks was not feasible. Costs associated with the conversion of baseline equipment, delivery of new components and their installation and commissioning, exceed the costs for procuring and commissioning new standard equipment. Details of the baseline equipment and the proposed replacement equipment were subsequently provided by UNIDO. Incremental costs for the three enterprises were agreed at US $800,000, representing a cost-effectiveness of US $13.26/kg, comparable to the global average for such projects.

81. The Secretariat questioned the calculation of incremental cost for the enterprises engaged in formulating and mixing paints and solvent cleaning fluids using the cost effectiveness thresholds established for metal and electronics cleaning. UNIDO explained that the enterprises would need in the future to use flammable solvents. This would require the provision of equipment designed to operate safely in the presence of flammable liquids. The Secretariat and UNIDO agreed on an approach that considered the total quantity of the three ODS solvents being phased out by these enterprises and the level of incremental costs previously provided for similar enterprises, including those in the solvent sector plan for Nigeria (submitted by UNIDO) approved at the 43rd Meeting. The incremental cost for this element is US $300,000 at a cost effectiveness of US $9.9/kg.

Retroactive funding

82. The Secretariat also indicated that for proposals for retroactive funding, a thorough assessment of the baseline circumstances of each enterprise, the replacement technologies and equipment installed and the timelines of the conversions should be provided, to establish the basis for any incremental costs that may be eligible.

83. UNIDO provided details of the baseline equipment used by the two enterprises for which retroactive funding had been requested as well as the cost of replacement equipment, which was supported by relevant documentation. Both companies converted their operations in 2001. The eligibility of the incremental cost for the equipment can be established. It was agreed that other costs, including operating costs, were less readily verifiable and would not be requested. The incremental cost for the retroactive component is US $60,733.

Technical support and management

84. A combination of a technical support programme and management component at a total cost of US $120,000 has been included. This represents 10 per cent of the final cost of the investment part as agreed with the Fund Secretariat. It is consistent with similar requests approved for terminal projects and sector and national phase-out plans. The total incremental cost of the project is US $1,464,733. UNIDO has requested that the funds be approved in a single tranche at the 44th Meeting.

PART E: DRAFT AGREEMENT FOR A NATIONAL CFC PHASE-OUT PLAN FOR INDONESIA

DESCRIPTION

85. The draft agreement for a national CFC phase-out plan submitted by UNDP on behalf of the Government of Indonesia, includes and supersedes the already approved refrigeration sector plan, includes the foam sector plan approved in principle, and includes also the newly submitted sector plans for the aerosol and solvent sectors. The draft agreement is in the format specified by the Executive Committee.

SECRETARIAT'S COMMENTS

86. If the draft Agreement is approved it will include and supersede the existing refrigeration sector agreement. Accordingly, the principle verification requirement will become the CFC consumption at the national level, incorporating, under one reporting requirement, the aerosol, foam, refrigeration and solvent sectors. Maximum consumption levels for individual sectors are not specified in the Agreement. The verification requirement therefore becomes more straightforward and more realistic, since it will be based on determination of the net level of CFC imports into Indonesia.

87. Reporting under the draft agreement will continue to be provided by the relevant agencies at the sector level and will be co-ordinated by UNDP into a single report to the Executive Committee. Similarly annual implementation plans will be prepared on a sectoral basis and coordinated by UNDP.

88. As indicated in Part A of this document, Indonesia wishes to allocate its remaining eligible CFC consumption of 30.1 ODP tonnes to the medical aerosol sector (MDIs). The Secretariat is discussing with UNDP the incorporation into the agreement of the phase-out in this sector on the basis of possible future submission of a project for pharmaceutical aerosols.

89. The Fund Secretariat is discussing with UNDP a number of other details including incorporation into the draft agreement the levels of funding and phase-out agreed for the aerosol and solvent sectors, and the phase-out of residual consumption of TCA and CTC to be achieved under the solvent sector plan. Additional advice and a final draft agreement will be provided for consideration by the Executive Committee in accordance with the requirements specified in Decision 41/80.

PART E: SECRETARIAT'S RECOMMENDATIONS

90. This section consolidates and presents the recommendations arising from the Secretariat's review of each of the components of the national CFC phase out plan and the draft agreement. The Secretariat notes that the aerosol, foam and solvent sectors have no cost or eligibility issues. The refrigeration sector has an issue related to verification of 2003 consumption and phase-out performance that could affect the Executive Committee's consideration of the approval of funding for the 2005 annual implementation programme.

91. Therefore, for the aerosol, foam and solvent sectors, the Executive Committee may wish to:

(a) Approve funding of the national strategy for phasing out the use of CFCs in the aerosol sector in Indonesia at a total cost of US $595,910 plus agency support costs to UNDP and the World Bank as a part of the national plan for CFC phase-out in Indonesia, with the following breakdown:

(i) US $224,000 plus agency support costs of US $13,440 to UNDP for the conversion from CFC to hydrocarbon aerosol propellants (HAPs) at P.T Yulia (retroactive funding); and

(ii) US $371,910 plus agency support costs of US $27,893 to the World Bank for implementation of the technical assistance programme and the project management unit under the Ozone Unit;

(b) Note that no additional funds would be available from the Multilateral Fund for the phase-out of CFCs in the aerosol sector except for 30.1 ODP tonnes of CFCs that are currently used in the pharmaceutical aerosol applications including MDIs. The Government of Indonesia could submit a request for the phase-out of this CFC consumption to a future meeting of the Executive Committee;

(c) Approve the balance of US $1,625,000 plus support costs of US $121,875 for the 2004 tranche of the foam sector phase-out plan;

(d) Request the World Bank to follow the format proposed in the foam sector project document for its annual reporting on the foam sector component of the national phase-out plan; and

(e) Approve funding of US $1,464,733, plus support costs of US $108,974 for UNIDO for the terminal project for phase-out in the solvent sector as part of the national plan for CFC phase-out in Indonesia.

92. Regarding the refrigeration sector, the Executive Committee may wish to consider the approval of the 2005 Work Plan and the requested tranche in light of the information and comments on verification provided by the Secretariat in paragraphs 60 to 62 of Part C of this document and the supplementary performance verification report to be submitted by UNDP prior to the 44th Meeting of the Executive Committee.

93. The Executive Committee may also wish to approve the draft Agreement between the Government of Indonesia and the Executive Committee for the national CFC phase-out plan in Indonesia which comprises all CFC consumption in the aerosol, foam, refrigeration and solvent sectors, to be submitted prior to the 44th Meeting of the Committee, in accordance with the provisos of Decision 41/80.

INDONESIA
PHASE-OUT OF CFCs IN THE FOAM AND REFRIGERATION SECTORS

REPORT ON 2003 IMPLEMENTATION,
2005 ANNUAL IMPLEMENTATION PROGRAMME AND
REQUEST FOR RELEASE OF THE THIRD FUNDING TRANCHE

Prepared Jointly By:

SECTOR PHASE-OUT PLAN MANAGEMENT & COORDINATION UNIT (SPMCU),
KEMENTRIAN LINGKUNGAN HIDUP (KLH)
UNDP
WORLD BANK

MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

PROJECT COVER SHEET - MULTI-YEAR PROJECTS

COUNTRY INDONESIA

PROJECT TITLE	**BILATERAL/IMPLEMENTING AGENCY**
Phase-out of CFCs in the Refrigeration Sector in Indonesia	UNDP – Lead Implementing Agency World Bank – Cooperating Agency

SUB-PROJECT TITLE (S)	
Phase-out in Refrigeration Manufacturing Sector	UNDP
Phase-out Management in the Refrigeration Servicing Sector	UNDP
Phase-out in the MAC Sector	World Bank
Phase-out in the Foam Sector	World Bank

NATIONAL COORDINATING AGENCY Kementrian Lingkungan Hidup (KLH)

LATEST REPORTED CONSUMPTON DATA FOR ODS ADDRESSED IN THE PROJECT

A. Article-7 Data (ODP Tonnes, 2003, as of May 2004)

Annex-A Group-I Substances (CFCs) ODP Tonnes	4,829.33	Annex-B Group-III Substances (TCA) ODP Tonnes	10.74
Annex-B Group-II Substances (CTC) ODP Tonnes	16.50	Annex-E Group-I Substances (MeBr) ODP Tonnes	37.80

B. Country Programme Sectoral Data (ODP Tonnes for 2003, as of May 2004)

Substance	**Aerosols**	**Foams**	**Refrigeration**	**Substance**	**Solvents**	**Process Agent**	**Fumigant**
CFC-11	2.10	791.34	663.5	**CTC**	16.50	N/A	N/A
CFC-12	764.20	-	2,506.99	**TCA**	10.74	N/A	N/A
CFC-115	-	-	38.00	**MeBr**	N/A	N/A	37.80

CFC CONSUMPTION REMAINING ELIGIBLE FOR FUNDING (ODP Tonnes)	**258.5**

CURRENT YEAR BUSINESS PLAN: Funding level US$ million, Total Phase-out ODP Tonnes

PROJECT DATA (ODP tonnes)		**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**Total**
Annual CFC Consumption Limit in the Refrigeration Sector (ODP tonnes)		NA	3,218	3,018	2,408	1,698	966	0	N/A
Annual CFC phase-out target in the **Refrigeration Manufacturing Sub-Sector** (ODP tonnes)		0	90*	300	300	300	241	0	1,231
Annual CFC phase-out target in the **Refrigeration Servicing Sub-sector** (ODP tonnes)		0	0	200	300	322	250	0	1,072
Annual CFC phase-out target in the **MAC Sub-sector** (ODP tonnes)		0	220	110	110	110	365	0	915
Annual CFC phase-out target in the Refrigeration Sector		**0**	**310**	**610**	**710**	**732**	**856**	**0**	**3,218**
Annual CFC phase-out target in the Foam Sector plan		**0**	**0**	**0**	**129.8**	**155.7**	**66.5**	**0**	**352**
Annual Funding Instalments (US$)	**UNDP (Refrigeration Manufacturing)**	**1,288,000**	**2,200,000**	**1,762,000**	**750,000**	**217,000**	**181,000**	**0**	**6,398,000**
	Support Cost	111,920	194,000	156,900	67,500	19,530	16,290		566,140
	UNDP (Refrigeration Servicing)	**2,196,758**	**1,805,987**	**500,000**	**250,000**	**159,555**	**0**	**0**	**4,912,300**
	Support Cost	195,708	160,939	43,400	21,300	13,160	0	0	434,507
	World Bank (MAC)	**1,369,800**	**1,347,300**	**1,347,300**	**126,800**	**125,800**	**0**	**0**	**4,317,000**
	Support Cost	121,962	119,937	119,937	10,092	10,002	0	0	381,930
	World Bank (Foam)	**0**	**0**	**1,725,000**	**1,050,000**	**147,564**	**35,000**	**0**	**2,957,564**
	Support Cost			129,375	78,750	11,067	2,625		221,817
Total Annual Funding Instalments (US$)		**4,854,558**	**5,353,287**	**5,334,300**	**2,176,800**	**649,919**	**216,000**	**0**	**18,584,864**
Total Support Costs (US$)		429,590	474,876	449,612	177,642	53,759	18,915	0	1,604,394
Total Costs to Multilateral Fund		**5,284,148**	**5,828,163**	**5,783,912**	**2,354,442**	**703,678**	**234,915**	**0**	**20,189,258**

FUNDING REQUEST

Approval of funding for the third tranche (2004) of US$ 1,762,000 plus support costs of US$ 156,900 for the Refrigeration Manufacturing Sector (UNDP), US$ 500,000 plus support costs of US$ 43,400 for the Refrigeration Servicing Sector (UNDP), US$ 1,347,300 plus support costs of US$ 119,937 for the MAC Sector (World Bank), and $1,625,000 for the Foam Sector Plan (after initial release of $100,000 at 42nd ExCom), as indicated above.

Prepared by: UNDP in consultation with KLH and the World Bank **Date:** Revised 29 October 2004

INDONESIA
PHASE-OUT OF CFCs IN THE FOAM AND REFRIGERATION SECTORS

Report on 2003 Implementation

1. Background

In accordance with the agreement between Government of Indonesia and the Executive Committee of the Multilateral Fund (Document UNEP/OzL.Pro/ExCom/38/70, Annex-XI) covering the total phase-out of CFCs in the Refrigeration Sector in Indonesia, including the Refrigeration Manufacturing, Refrigeration Servicing and Mobile Air Conditioning (Manufacturing and Servicing) Sub-sectors, of 3,218 ODP tonnes, would be eliminated by 01 January 2008. The agreement was approved at the 38th Meeting of the Executive Committee of MLF, at a total funding level of US$ 15,627,300, to be provided in six tranches.

The breakdown of the approved overall funding, the disbursement schedule and annual CFC consumption and phase-out control targets, reproduced from the agreement is as below:

Parameter		2002	2003	2004	2005	2006	2007	2008	Total
Annual CFC Consumption Limit in the Refrigeration Sector (ODP tonnes)		NA	3,218	3,018	2,408	1,698	966	0	N/A
Annual CFC phase-out target in the **Refrigeration Manufacturing Sub-Sector** (ODP tonnes)		0	90*	300	300	300	241	0	1,231
Annual CFC phase-out target in the **Refrigeration Servicing Sub-sector** (ODP tonnes)		0	0	200	300	322	250	0	1,072
Annual CFC phase-out target in the **MAC Sub-sector** (ODP tonnes)		0	220	110	110	110	365	0	915
Annual CFC phase-out target in the Refrigeration Sector (ODP tonnes)		**0**	**310**	**610**	**710**	**732**	**856**	**0**	**3,218**
Annual CFC phase-out target in the Foam Sector plan (ODP tonnes)		**0**	**0**	**0**	**129.8**	**155.7**	**66.5**	**0**	**352**
Annual Funding Instalments (US$)	**UNDP (Refrigeration Manufacturing)**	**1,288,000**	**2,200,000 ****	**1,762,000**	**750,000**	**217,000**	**181,000**	**0**	**6,398,000**
	Support Cost	111,920	194,000	156,900	67,500	19,530	16,290		566,140
	UNDP (Refrigeration Servicing)	**2,196,758**	**1,805,987**	**500,000**	**250,000**	**159,555**	**0**	**0**	**4,912,300**
	Support Cost	195,708	160,939	43,400	21,300	13,160	0	0	434,507
	World Bank (MAC)	**1,369,800**	**1,347,300**	**1,347,300**	**126,800**	**125,800**	**0**	**0**	**4,317,000**
	Support Cost	121,962	119,937	119,937	10,092	10,002	0	0	381,930
	World Bank (Foam)	**0**	**0**	**1,725,000 +**	**1,050,000**	**147,564**	**35,000**	**0**	**2,957,564**
	Support Cost			129,375	78,750	11,067	2,625		221,817
Total Annual Funding Instalments (US$)		**4,854,558**	**5,353,287**	**5,334,300**	**2,176,800**	**649,919**	**216,000**		**18,584,864**
Total Support Costs (US$)		429,590	474,876	449,612	177,642	53,759	18,915		1,604,394
Total Costs to MLF		**5,284,148**	**5,828,163**	**5,783,912**	**2,354,442**	**703,678**	**234,915**		**20,189,258**

* Through ongoing projects

** An advance of US$ 600,000 was released from the second tranche of US$ 2,200,000 in July 2003 for the UNDP Refrigeration Manufacturing Sector Phase-out Plan

+ An initial funding of $100,000 was released at the 42nd ExCom Meeting

2. Preparatory Activities

2.1 Refrigeration Manufacturing Sector - UNDP

- The CFC phase-out activities at six individually implemented projects were completed during 2003, leading to a phase-out of 90 ODP Tonnes, in accordance with the agreed target for this sector (see Annex-1 for details).

- The first tranche of US$ 1,288,000 was received by UNDP in August 2002. An additional US$ 600,000 was released as advance from the second tranche, in August 2003.

- It was agreed by UNDP and KLH that the project would be implemented through the NEX (National Execution) modality.

- The UNDP first-tranche project document was prepared and submitted to KLH in December 2002.

- UNDP and KLH agreed on the Operational Mechanism for Implementation (OMI), which delineated the roles and responsibilities of the various stakeholders, in January 2003.

- The first-tranche project document was signed by Government in April 2003.

- The UNDP first-tranche project document was fully signed for all parties in May 2003.

2.2 Refrigeration Servicing Sector - UNDP

- The first tranche of US$ 2,196,758 was received by UNDP in December 2002.

- It was agreed by UNDP and KLH that the project would be implemented through the NEX (National Execution) modality.

- The UNDP first-tranche project document was prepared and submitted to KLH in February 2003.

- UNDP and KLH agreed that the Operational Mechanism for Implementation (OMI), which delineated the roles and responsibilities of the various stakeholders and was earlier designed for implementing the INS/02/G66 – Refrigeration Manufacturing Sector Plan would be also followed for implementation of the IND/03/G61 – Refrigeration Servicing Sector Plan

- The first-tranche project document was signed by Government in August 2003.

- The UNDP first-tranche project document was fully signed for all parties in August 2003.

2.3 MAC Sector - World Bank

- The first tranche of US$ 1,369,800 was released upon approval of the plan at the 38th Meeting of the Executive Committee held in November 2002.

- It was agreed by KLH and the World Bank that the project would be implemented through the national execution modality.

- KLH, World Bank and the UNDP agreed that the Sector Phase-out Plan Management and Coordination Unit (SPMCU), which KLH had earlier organized with the assistance of UNDP for supporting the implementation of the Refrigeration Manufacturing and Refrigeration Servicing plans, would be utilized for overseeing the implementation of the MAC Sector Plan, with suitable enhancement in staffing and cost sharing. Accordingly an additional operational assistant was added to the SPMCU to support the MAC Sector activities.

3. Investment Components

3.1 Refrigeration Manufacturing Sector - UNDP

Enterprise Participation

The first list of participating enterprises was provisionally endorsed by KLH prior to the signature of the project document in May 2003. Preparation for procurement activities was initiated well before endorsement of recipient enterprises and signature of project document. Upon verification of the enterprise baselines by KLH and UNDP, the final endorsement of the 45 enterprises for participation in the first batch for implementation, was provided by KLH to UNDP in August 2003. Upon completion of all activities in these enterprises targeted in 2004 and 2005, the CFC phase-out that would be achieved, would contribute 454.8 ODP tonnes to the 2004 and 2005 annual CFC phase-out targets.

Procurement

- UNDP announced the Invitations for Expressions of Interest for prospective suppliers of the equipment to be procured under this project in January 2003. The Invitations for Expressions of Interest were posted in the websites of UN Develolpment Business, IAPSO and UNDP-Jakarta for one month.

- UNDP prepared the technical specifications for the equipment to be procured for the first batch of enterprises in February 2003. UNDP also finalized the short list of vendors for the international competitive bidding exercise, based on the roster of existing suppliers and based on the evaluation of responses to the Expressions of Interest.

- The Invitations to Bid (ITB) for the equipment to be procured for the first batch of 45 enterprises, based on the above, were issued by UNDP in February 2003. Four different invitations to bid, covering the different types of equipment required were issued to a total of 6-8 vendors for each type of equipment.

- The bids received were evaluated in March 2003. The process of approval from UNDP's procurement committees was completed in August 2003.

- The process of finalization of the vendors and issuance of purchase orders was completed in September 2003. The total funds committed for the procurement for the first batch of participating enterprises, amount to about US$ 1.6 million.

3.2 Refrigeration Servicing Sector - UNDP

3.2.1 Recovery/Recycling Programme

Enterprise Participation

The recovery/recycling programme targeted initiating participation of about 385 servicing establishments during 2003. About 188 larger-sized servicing establishments were identified by SPMCU in collaboration with Associasi Bengkel Electronic Indonesia (Indonesia Electronic Service Association). The first list of about 188 servicing establishments was provisionally endorsed by KLH in September 2003 for participating in the recovery/recycling programme.
A survey of training establishments was carried out during May-July 2003 by KLH/SPMCU with assistance from Institut Teknologi Bandung (ITB). About 134 training establishments were identified, for provision of demonstration recovery/recycling equipment.

Procurement

- UNDP announced the invitations for Expressions of Interest for prospective suppliers of the recovery/recycling equipment to be procured under this project in April 2003. The invitations for Expressions of Interest were posted in the websites of UN Development Business, IAPSO and UNDP-Jakarta for one month.

- UNDP prepared the technical specifications for the equipment to be procured for the first batch of enterprises in October 2003. UNDP also finalized the short list of vendors for the international competitive bidding exercise, based on the roster of existing suppliers and based on the evaluation of responses to the Expressions of Interest.

- The Invitations to Bid (ITB) for the equipment to be procured for the first batch of participating servicing and training establishments, based on the above, were issued by UNDP in October 2003.

- The further procurement steps, such as evaluation of bids, UNDP procurement committee approvals and finalization of vendors were completed in December 2003.

Upon completion of all activities in the first batch of servicing and training establishments targeted in 2004 and 2005, the CFC reduction in servicing that would be facilitated, would contribute about 154 ODP tonnes to the 2004 and 2005 annual CFC phase-out targets. The funds committed for procurement of equipment for the first batch of participating establishments, amount to about US$ 1 million.

The identification of participating service establishments for the second batch, estimated at about 300 medium-sized servicing establishments was carried out by SPMCU in collaboration

with Assosiasi Bengkel Elektronik Indonesia. Of these, endorsement for 188 establishments was provided by KLH to UNDP in December 2003. The completion of all activities in this second batch of participating servicing establishments is expected to result in an additional 120 ODP tonnes in reduction of CFC usage in servicing during 2004 and 2005, contributing to CFC reduction targets those years.

3.2.2 Pilot Retrofitting/Replacement Demonstration Programme

The process of identifying about 70 representative end-users to participate in the retrofitting/replacement demonstration programme has been initiated. Preliminary screening of about 28 supermarkets, 13 hotels, 7 hospitals, 5 restaurants, 5 marine installations and 10 industrial installations (total 68) has been completed. The mechanism of participation in the Plan and for providing assistance to these end-users is being finalized. The demonstration retrofitting/replacement activities are expected to be completed at these end-users between end-2004 and mid-2005, which in turn is expected to accelerate retrofitting/replacement actions in the end-user sector, leading to a reduction in CFC usage in servicing by about 40 ODP tonnes during 2004.

3.2.3 Training Programmes

The Master Trainers programme was initiated during 2003. The candidates for the Master Trainers programme were drawn from major servicing establishments and training establishments. Institut Teknologi Bandung (ITB) was retained to carry out the training tasks. The curriculum for the Master Trainers was established by ITB in consultation with KLH and UNDP and comprised of introduction to ozone layer protection, refrigeration principles, refrigerants, refrigeration equipment servicing, recovery and recycling both theory and practice. Training sessions were organized in major cities, Bandung - attended by 18 participants, Jakarta - attended by 23 participants, Semarang - attended by 23 participants and Surabaya attended by 27 participants, during October and November 2003. The training sessions were concluded with a written examination and 82 out of the 91 participants passed the examination and were issued certificates signed by KLH and ITB.

The remainder of this programme is expected to continue during 2004 and targeted for completion by end-2004, resulting in creation of a pool of about 150 Master Trainers, who would in turn conduct training for the subsequent Technician Training programme.

3.3 MAC Sector - World Bank

3.3.1 Recovery/Recycling Investment Programme

This component focuses on enabling the MAC servicing establishments to physically reduce CFC usage in their servicing activities. The main activity under this component is to assist the participant MAC servicing establishments to build their capacity in best practices in MAC servicing by improving their knowledge and techniques for managing CFCs in the MAC systems by providing equipment and training for recovery and recycling for refrigerants. This programme targeted a total CFC-12 consumption of 220 ODP tonnes by the end of 2003.

The implementation of investment activities as well as the recovery/recycling programme is being carried out by PT. Dasa Windu Agung (DWA) as the group coordinator, through a Sub-

grant Agreement Document of July 17, 2003. DWA is responsible for procuring and distributing the recovery and recycling equipment to the selected MAC servicing establishments. During 2003, DWA surveyed 260 MAC servicing establishments of which, 216 were verified and endorsed for participation by KLH. These 216 enterprises account for a cumulative consumption of 254.5 ODP tonnes, which exceeds 2003 phase-out target of 220 ODP tonnes.

3.3.2 Training

The distribution of MAC recovery and recycling equipment is expected to be beneficial only if the operators of such equipment were provided with the necessary skills and knowledge base for proper use of this equipment that would results in emission reductions. It is understood that most of MAC technicians in Indonesia never had a proper training, gaining their skill only by practical and informal experience. The activity of Training of Trainers has been designed to create a pool of trainers that will train MAC technicians in their respected areas. The activity consists of development of curriculum, recruiting instructors, and identifying candidates for trainees, through collaboration with training establishment already identified in the preliminary stage. This process is underway.

4. Non-Investment (Policy and Management Support) Components

4.1 Sector Phase-out Plan Management and Coordination Unit (SPMCU)

- The procedures for acquiring dedicated premises within the KLH, for the SPMCU were completed and the premises were assigned.

- The recruitment process and appointment of the National Programme Manager for the Sector Phase-out Plan Management and Coordination Unit and staff, was completed by KLH with UNDP assistance and the selected candidates resumed duties from June 2003.

- The logistics and infrastructural arrangements, such as furniture, office equipment, communication, etc. for the functioning of SPMCU were completed and SPMCU was fully functional from June 2003.

4.2 Enterprise Participation Mechanism

- The operational mechanism for enterprise participation in the Plan was finalized by KLH in consultation with UNDP and the World Bank.

- The modalities and procedures for verification of baseline of participating enterprises were finalized during 2003. This included development of documentation requirements and obtaining commitments from the enterprises in line with KLH regulations.

4.3 Policy and Regulatory Actions

- KLH continued the implementation and enforcement of the Government of Indonesia regulations related to ODS import and distribution.

- KLH has now fully constituted and operationalized the National Steering Committee and also the Technical Committee, to coordinate all policy and regulatory actions, related to compliance with the Montreal Protocol.

- KLH has initiated interactions with the District-level Environmental Impact Management Agencies (BAPPEDALDA), through interaction meetings and workshops; in order to enlist their cooperation and build their capacity for enforcement of regulations related to ODS.

- To effectively formulate and implement responses to illegal CFC trade and related issues, KLH has initiated steps to carry out a major modification of the current licensing system. KLH has also initiated formulation of a new regulation for instituting a registration and reporting system for CFC usage, which is targeted for being into effect by early 2005. The targeted outcomes of these regulations are to provide the government with adequate and timely information, in order to closely monitor and control the CFC usage.

- Interaction meetings were held with major distributors and traders of CFCs and with representatives of industry associations related to Refrigeration and MAC servicing. This is expected to lead to the institutionalizing these contacts and result in formation of a core group of industry stakeholders, to increase involvement and obtain industry commitments for the successful achievement of the phase-out targets and control measures under the Plan.

- Under the Import and Export Monitoring and Control System for ODS (World Bank), a training workshop for customs agencies was held, for building their capacity for carrying out effective enforcement of the prevailing and planned ODS regulations, as well as to conduct studies to improve the system.

4.4 Awareness Actions

Refrigeration Manufacturing Sector

Two workshops were held in January 2003. The first workshop targeted prospective recipient enterprises under the Plan, for introducing the Plan and for briefing them on the roles, responsibilities, mechanism, procedures, terms and commitments for participation. About 70 enterprises attended the workshop. The second workshop targeted government and institutional stakeholders and decision makers, for briefing them on the government level policy and regulatory actions to be taken as a part of Plan implementation. About 50 persons attended. The workshop highlighted the roles of various line ministries and departments in the Plan implementation, reinforcing the need for coordinated actions and included panel discussions on experiences of policy measures in other Article 5 countries.

Refrigeration Servicing Sector

The first workshop for government and institutional stakeholders and decision makers was held in March 2003 in Jakarta and was attended by 105 persons from various government agencies, departments and ministries. The workshop objective was capacity building of stakeholders, to familiarize them with policy/regulatory experiences from other countries and to emphasize the need for developing effective regulatory and enforcement mechanisms.

The following workshops were held during 2003, to identify servicing establishments and to encourage their participation in the recovery/recycling programme. Over 200 recipients were identified as a result of these workshops:

Jakarta, August 2003, 86 participants (organized jointly with ABE)
Jakarta, October 2003, 120 participants
Surabaya, August 2003, 56 participants
Medan, August 2003, 42 participants
Denpasar, December 2003, 42 participants
Palembang, December 2003, 45 participants

MAC Sector

TA activities under the MAC Sector Plan's 2004 Annual Implementation Programme concentrate on the following: (a) strengthening the overall institutional framework for phase-out; (b) provides regulatory support; (c) public awareness, (d) management, monitoring and evaluation of the project and enhancement of capabilities of participating institutions under the SPMCU; (e) project implementation that will be subcontracted to an independent institution, and, (f) information exchange. The activities carried out in the first implementation programme are as follows:

- *Workshops to MAC service shop personnel involved in implementation of phase-out activities*. Six workshops have been carried out in Jakarta (4 times), Bandung, and Surabaya. These workshops were attended by 235 service shop owners or their representatives, prior to receiving the recycling machines. Statement and commitment letters had been obtained during the survey of identification of these service shops.

- *National Workshop*.

- Promotional programme was launched during the commemoration of International Ozone Day by organizing journalist outreach, displaying banners at the strategic places in Jakarta. Costs were shared between the Refrigeration Manufacturing, Servicing and MAC Sector Phase-out Plans.

- *Train the trainer programme*. This programme has been organized on 6 to 10 September, participated by trainees represented 20 training institutions across the country. The curriculum comprised the principles of refrigeration and refrigerants, MAC system, leak detecting and repairing, retrofitting from CFC base to non-CFC base, principle and practice of recovery, recycling and recharging, and general good MAC servicing practice.

- *Development of Standard Inspection Manual.* The first version of standard inspection manual for identification of refrigerant type in the MAC unit was produced and distributed to the trainees of the Train the Trainers programme on 10 September. This version would be further developed and distributed during the upcoming Train the Technicians programme.

- *Development and printing of pamphlets.* Stickers for car owners to identify refrigerant type in the MAC unit, name of the shop that last worked on the system, and detailed of work done would be produced and distributed during the train the technicians programme and together with the distribution of R&R equipment to the beneficiaries.

- *Training.* Train the technicians programme was in preparation. It is projected that the technicians from the 216 MAC service shops receiving the first batch of Recovery and Recycling machines would attend the training by the end of the year. Proposals from the appointed training centers that sent their staff to the Train the trainers programme (iv) were being reviewed.

5. CFC Phase-out and Results

The annual CFC phase-out target for 2003 in the Refrigeration Sector was 310 ODP Tonnes, 90 ODP tonnes to be achieved through the completion of ongoing projects in the Refrigeration Manufacturing Sector and 220 ODP Tonnes to be reduced in the MAC Servicing Sector. Through the completion of six ongoing projects during 2003, the annual CFC phase-out target in the Refrigeration Manufacturing Sector of 90 ODP Tonnes and the contribution of 254.5 ODP tonnes contributed by the 216 MAC servicing establishments participating in the MAC Recovery and Recycling programme, lead to achievement of the 2003 phase-out target. (See Annex-1 for details).

The completion of the enterprise-level activities in the enterprises included in the first batch under the Refrigeration Manufacturing Sector is envisaged during 2004. This would lead to the phase-out of at least 300 ODP tonnes, which is the CFC phase-out target for that year.

6. Performance Audit

In compliance with the provisions of the Agreement (Document UNEP/OzL.Pro/ExCom/38/70, Annex-XI), a performance verification by a national independent entity has been commissioned by UNDP in late September 2004 to verify that the agreed CFC phase-out targets and consumption limits for 2003 have been achieved. The performance verification will verify the national level CFC consumption in the Refrigeration Sector for 2003, based on the data available from the designated importer(s) and the data available from the relevant ministries and customs. In addition, through plant visits to a select number of completed projects and inspection of relevant records at these projects, the CFC phase-out of 90 ODP tonnes achieved in the Refrigeration Manufacturing Sector and 254.5 ODP tonnes contributed from the MAC Sector will be confirmed.

It is expected that the verification of the data will show that Indonesia meets the 2003 consumption control limits in the refrigeration section stipulated in the Agreement between the MLF and the Government of China. UNDP expects to have the report of the performance verification available

prior to the 44th ExCom Meeting and that a supplementary report will be prepared for the review of the Multilateral Fund Secretariat and the members of the Executive Committee.

7. Brief report on activities carried out during 2004

Refrigeration Manufacturing Sector

The second batch of 34 participating enterprises was endorsed by KLH to UNDP in January 2004. The equipment purchase orders for the second batch were issued by mid-2004. The cumulative CFC consumption of these enterprises amounted to about 231 ODP tonnes.

The equipment procured for the first batch of enterprises has been distributed to the respective recipients and the installation, commissioning and training is in process at the respective project sites. Activities at 13 enterprises were completed as of August 2004. It is expected that the activities at the remaining enterprises would be progressively completed by end-2004, thus achieving or exceeding the phase-out target for 2004, of 300 ODP Tonnes.

The verification of baselines for the subsequent batches of participating enterprises was carried out on an ongoing basis. A coordination meeting was held in May 2004, with the Department of Customs and Ministry of Industry and Trade, for discussions on the planned regulation changes covering an import quota system and registration/reporting system for CFC usage. One technology workshop was held in August 2004 for recipients of the first batch of participating enterprises.

Refrigeration Servicing Sector

The procurement of recovery/recycling equipment for the first batch of participating servicing and training establishments has been completed. The equipment is presently under distribution.

The Master Trainers programme is ongoing, to meet the target of creating 150 master trainers during 2004 (about 90 were created in 2003). The preparations for implementing the Technician's Training programme are underway and the same is expected to commence soon.

A mini workshop-cum coordination meeting for facilitating development of a National Competency Standard for Refrigeration Technicians was held in August 2004, with the representatives of the related government departments and industry associations. The expected outcome is expediting the institutionalization of such a standard during 2005.

Workshops will continue to be conducted for potential beneficiaries in other locations, such as Padang etc.

MAC Sector

Investment Component of the MAC Sector Plan:

Commitment Workshops: There were 6 successful commitment workshops conducted for service shops and technicians, 4 in Jakarta, 1 in Bandung, 1 in Surabaya starting from May to August 2004, attended by 235 participants. Outcome of workshop was to inform service shops owners and technicians about the programme, the rights and responsibilities of beneficiaries and information

regarding the delivery of equipment, and to fulfill the precondition to receiving equipment (commitment letter are received during survey and beneficiaries and then reconfirmed during the workshops by the SPMCU and the group coordinator).

108 workshop establishments positively responded to participate and have signed the contract commitments. These beneficiaries contribute to a cumulative ODP impact of 110 tons.

- Technical Assistance: Training of trainers. The distribution of servicing equipment would only be beneficial if the operators of such equipment were provided with the necessary skill and knowledge. It was understood that most of MAC technicians in Indonesia never had a proper training, gaining their skill only by working in the workshops. To get a standard technical capacity for all technicians, a master trainer was appointed. They were assigned to set up training for trainer programme by developing curriculum and certification of training centers that have passed training of trainer.

- Train the Trainer's Workshop. The Sector Plan Management and Coordination Unit (SPMCU) of the KLH and Dasa Windu Agung [DWA]) completed a successful train-the-trainers workshop (September 6 –10) for 20 training centers. The trainers will be certified after successful completion of the training and passing the certification exam – practical and theoretical components. By early October, the selected trainers will provide training to the enterprises by selected training centers following the establishment of the train for trainers (TOT) programme. Certification has been prepared, it will be handed after they passed training tests. The training evolved theoretical reviews of technical application to service MAC refrigeration system; learning method to properly handle services of refrigerant using recycling equipment, etc..

- Training of technicians is expected to be carried out in 4th quarter of 2004. There are 216 technicians to be trained covering cities in Java. Completion of training of technicians will enable workshop establishments to properly operate and maintain the recycling equipments. Standard value for service of MAC refrigeration system is attained. More than 300 technicians have registered to participate in the training, it is even anticipated that this figure will be doubled if two technicians are sent by each workshop establishment.

Policy Action and Regulation:

KLH conducted 2 successful working group discussions for policy makers to introduce the MAC programme and to discuss policy measures or regulations for the MAC programme was held in 15 May and 20 August 2004 in Bogor. On 20 August 2004 the working group discussed strategy for public awareness and policy regulation – in coordination with the entire refrigeration sector. A core technical working group has been set up to discuss ODS (including MAC) policy actions, comprising of government stakeholders and professional associations. Discussions are ongoing and further meetings are scheduled in the coming months to discuss policy actions such as bans on new MAC installations with CFC, a ban on venting of CFC-12, compulsory use of recovery until when the system is serviced or decommissioned, a prohibition of mislabeling containers.

- Meetings with Custom have been conducted to evaluate where major ports in Indonesia need refrigerant identifying tools.

- Procurement of 20 units of refrigerant identifiers is underway. Distribution expects to be realized 4th quarter 2004.

- Certification scheme for participating MAC service shops are being evaluated.

- Interaction meetings were held with major distributors and traders of CFCs and with representatives of industry associations related to refrigeration and MAC servicing. This is expected to lead to the institutionalizing these contacts and result in formation of a core group of industry stakeholders, to increase involvement and ensure commitments to cooperation for the successful achievement of the phase-out targets and control measures under the Plan.

Public awareness activities on the environmental impact of the MAC programme started from 17 May and are ongoing. Activities to-date include the development of calendars and posters for distribution. Awareness raising events such as fun walks in Jakarta, campaign for ozone friendly products, workshops for green journalists for ozone, and banners are being developed currently in September 2004 (to celebrate National Ozone Day). The promotional programme to encourage public to have MAC system repaired by certified technicians included in the strategic ODS Phase-out programme public awareness plan of KLH was launched during the commemoration of International Ozone Day by organizing journalist outreach, displaying banners at the strategic places in Jakarta.

Foam Sector

The Foam Sector Plan was approved at the 42nd ExCom Meeting in March 2004 for the amount of $2,957,564. An advance amount of $100,000 of the $1,725,000 first tranche for the implementation of the 2004 Annual Implementation Programme was released at the same Meeting for the World Bank to undertake initial activities to achieve the 2005 reduction target of 129.8 ODP tonnes of CFC-11.

The Foam Sector Plan will facilitate elimination of all the remaining eligible CFC consumption in the foam sector in Indonesia, upon completion. The Foam Sector Plan will be implemented through four annual implementation programmes and together with the implementation of the approved ongoing projects in the foam sector, is expected to result in the complete phase-out of CFCs in the foam sector in Indonesia in four years. The Foam Sector Plan will address the conversion requirements in the foam sub-sector for ensuring a timely, sustainable and cost-effective phase-out, through a combination of policies and technical assistance components investment schemes, and policy/management support components.

KLH and the World Bank agreed upon implementation arrangements for the sector plan implementation. The KLH will provide the draft sub-grant agreement between KLH and the group coordinator (Dasa Windu Agung).

Investment Component: The management of the investment scheme of the foam sub-sector was organized by the signing of the Sub-grant Agreement Document between the Ministry of Environment and Dasa Windu Agung (DWA), as the group coordinator, and representative of the beneficiaries. A work plan for investment activities and a TOR for the Group Coordinator were developed

Non-Investment Component: The Sector Plan Management and Coordination Unit (SPMCU) would coordinate the policy and regulatory activities. For the non-investment component (public awareness and technical assistance), it was decided that Ministry of Environment will request 3 qualified firms to send expressions of interest, and will also sign a SGA with the selected firm by end of October 2004.

Policy and Management

- KLH has continued follow-up on the procedures needed to effect the modification of existing regulations on CFC imports (instituting a realistic licensing/quota system and new regulations for registration/reporting of CFC usage), with the relevant government departments and stakeholders. A workshop for government policy/decision-makers was held in August 2004, to discuss the various options and modalities for accomplishing these regulatory changes.

- As of September 2004, with the assistance of UNDP and World Bank, KLH is in the process of retaining a suitable independent agency/institution to carry out the verification of the CFC phase-out achieved during 2003.

8. 2005 Annual Implementation Programme and Release of 2004 Funding Tranche

The 2005 Annual Implementation Programme is attached in Annex-2, with a request to the 44th Meeting of the Executive Committee for release of the third (2004) funding tranches for the four sectors, as below:

Sector	Agency	Tranche Amount (US$)	Agency Fees (US$)	Total (US$)
Refrigeration Manufacturing	UNDP	1,762,000	156,900	1,918,900
Refrigeration Servicing	UNDP	500,000	43,400	543,400
MAC	World Bank	1,347,300	119,937	1,467,237
Foam *	World Bank	1,625,000	121,875	1,746,875
Total		**5,234,300**	**442,112**	**5,676,412**

* Amount requested for the Foam Sector reflected balance of 2004 tranche, after initial $100,000 was released at 42nd ExCom Meeting

ANNEX-1

INDONESIA
Refrigeration Sector Phase-out Plan

Projects in the Refrigeration Manufacturing Sector Completed during 2003

UNDP Project Number	MLF Project Number	Project Name	Approved Grant (US$)	ODS (MT/y)	ODP (tonnes/y)	Remark
INS/01/G67	IDS/REF/35/INV/131	PT Nikoteknik	238,903	29.73	27.90	Target 11/2003
INS/01/G66	IDS/REF/35/INV/132	PT Sapporo Mestika	153,768	11.58	11.18	Target 11/2003
INS/01/G61	IDS/REF/35/INV/133	PT Hatindo Metal Utama	145,894	10.15	9.59	Target 11/2003
INS/01/G63	IDS/REF/35/INV/134	PT Leoindo Kreasi	119,394	16.81	15.74	Target 11/2003
INS/01/G65	IDS/REF/35/INV/135	PT Alfa Metalindo Agra	146,960	10.23	9.66	Target 11/2003
INS/01/G62	IDS/REF/35/INV/136	PT Gastro Gizi Sarana	221,049	16.49	15.50	Target 11/2003
TOTAL			**1,025,968**	**94.99**	**89.57**	

Notes:

1. All enterprises achieved all project objectives and met all project obligations, such as phase-out of CFCs, phase-in of CFC-free production, depletion of CFC stocks, destruction of redundant and replaced baseline equipment, etc. upon completion in November 2003.

2. Hand Over Protocols (HOPs) for these projects were issued and signed during December 2003.

ANNEX-2

INDONESIA
Phase-out of CFCs in the Foam and Refrigeration Sectors
2005 Annual Implementation Programme

1. Data

Country		Indonesia
Year of plan		2005
Number of years completed		3
Number of years remaining under the plan		3 (2005, 2006 and 2007)
Target ODS consumption of the preceding year (2004)		3,018
Target ODS consumption of the year of plan (2005)		2,408
Level of funding requested (US$)	Refrigeration Manufacturing	1,762,000 (UNDP)
	Refrigeration Servicing	500,000 (UNDP)
	MAC	1,347,300 (World Bank)
	Foam	1,625,000 (World Bank)
	Total	**5,234,300**
Lead implementing agency		UNDP
Co-operating agency (ies)		World Bank

2. Targets

Indicators		**Preceding Year (2004)**	**Year of Plan (2005)**	**Reduction**
Supply of ODS in Sector (ODP tonnes)	Import	5,064	3,678	1,386
	Production *	N/A	N/A	N/A
	Total (1)			
Demand of ODS in Sector (ODP tonnes)	Manufacturing	3,187	2,111	1,076
	Servicing	1,877	1,567	310
	Stock piling	N/A	N/A	N/A
	Total (2)	**5,064**	**3,678**	**1,386**

* For ODS-producing countries

3. Industry Action

Sector	**Consumption Preceding Year (2004) (1) ****	**Consumption Year of Plan (2005) (2) ****	**Reduction within Year of Plan (1) - (2)**	**No. of Projects Complete**	**Number of Servicing Related Activities**	**ODS Phase-Out (ODP tonnes)**
Refrigeration Manufacturing Sector	8,41	841	300	See below	N/A	300
Refrigeration Servicing Sector	1,072	872	200	See below	See below	200
MAC Sector	805	695	110	See below	See below	110
Foam *	2,046	1,270	776	See below	See below	776
Total	**5,064**	**3,678**	**1,386**	**See below**	**See below**	**1,386**

* Phase-out to be achieved through completion of on-going projects.

The phase-out objective of the 2005 Annual Implementation Programme for the Foam Sector Plan is to ensure that the national CFC-11 phase-out target of 130 ODP tonnes will occur by the end of 2005. Industrial actions for the foam sector will focus on validation surveys of enterprises in rigid foam to verify baseline information, assess current conditions and to confirm chosen conversion technology, procurement of replacement and retrofitting of foaming equipment, and subsequent delivery, installation, commissioning and trial at enterprise sites to achieve the 130 ODP tonnes of CFC-11 phase-out for 2005. All contracts for these 130 ODP tonnes would have been singed in 2004. Indonesia is requesting the release of the balance of US$ 1,625,000 for the 2004 annual implementation programme as agreed in the overall Foam Sector Phase-out Plan. The fund will be allocated to foam enterprises to convert from CFC-11 foam production to non-CFC foam production and for technical assistance activities. Planned activities for enterprise level investment component are included in Annex 3.

4. Technical Assistance

Activity	Description	
Refrigeration Manufacturing Sector - UNDP		
Workshop for user industry	Objective	Initiating enterprise participation and phase-out activities
	Target group	Prospective recipient enterprises
	Impact	Obtaining enterprise commitments for time-bound phase-out
Technical Assistance for procurement of equipment	Objective	Initiate procurement procedures for equipment to be provided to recipient enterprises for conversion to non-CFC technology
	Target group	Third and fourth batches of recipient enterprises
	Impact	Finalization of specifications and vendor shortlists, international competitive bidding and issuance of purchase orders/contracts leading to (upon completion) a phase-out of about 150 tonnes during 2005 and 150 tonnes during 2006.
Completion of activities at recipient enterprises from the previous batches	Objective	To confirm completion of equipment installation, commissioning and training activities at the recipient enterprises in the previous batches
	Target group	First and second batches of recipient enterprises
	Impact	Phase-out of about 150 tonnes of CFCs during 2005.
Refrigeration Servicing Sector - UNDP		
Workshops for Servicing establishments	Objective	Continued participation, commitments and phase-out activities from service establishments and for disseminating technologies and practices in refrigeration servicing to ensure sustainable reductions in CFC usage.
	Target group	Prospective recipient service establishments. It is proposed to organize a series of one-day workshops regionally
	Impact	Participation agreements with servicing establishments in place for the third and subsequent batches of the recovery/recycling programme.
Technical Assistance for procurement of equipment	Objective	Initiate procurement procedures for equipment to be provided to the third batch of recipient servicing establishments for recovery/recycling
	Target group	Service establishments (third batch)
	Impact	Finalization of specifications and vendor shortlists, international competitive bidding and issuance of purchase orders/contracts
Technical Assistance for retrofitting/replacement demonstration	Objective	Completion of activities for retrofitting/replacement of CFC-based equipment and demonstration of retrofitting/replacement technologies.
	Target group	About 50 end-users identified and selected for participation in the programme during 2005
	Impact	Facilitating early retrofitting/replacement decisions for CFC-based equipment by end-users, thereby leading to reductions of about 100 MT in servicing by 2005
Training	Objective	Training of technicians
	Target group	Refrigeration servicing technicians (about 6,000 in the first batch)
	Impact	Delivery of training inputs to technicians, in order to introduce good practices and awareness thereby facilitating indirect emission reductions amounting to about 40 tonnes during servicing by 2005.

4. Technical Assistance (Cont'd)

Activity	Description	
MAC Sector – World Bank		
Training	Objective	*Workshops for MAC service shop personnel involved in implementation of phase-out activities*
	Target group	MAC service shop technicians and owners
	Impact	workshops to MAC service shops' owners and technicians is needed initially for them to prepare commitment participation and other terms set forth, to monitor and report CFC-12 consumption, and to learn operating procedures in MAC sector phase-out approach. The workshop will need to be repeated every year in the first few years of implementation;
National workshops	Objective	To introduce and promote (a) MAC sector phase-out strategy, (b) policies already promulgated and new policies to be introduced for MAC sector phase-out, (c) government commitment to CFC-12 phase-out, and (d) alternative technology.
	Target group	Proposed participants include national, provincial, and local level policy makers, sector ministries related to MAC industries, MAC professional associations and related industry; Public awareness of the environmental and economic impact of ozone layer depletion via newspapers, seminar and/or electronic media.
Train the Trainer Program	Objective	The programme will continue from the second implementation period into the 2005 Annual Implementation Plan period. This programme is organized to minimize (a) current practice of topping up refrigerant without fixing leaks; (b) education for proper service method. Under the planned duration, the programme will concentrate on the following: - Develop and upgrade, if possible the existing training requirements and materials used for MAC training offered by training centers/technical institutes assisted by international and/or local experts appointed by NOU; - Invite potential training center and technical institutes; including the regional and provincial training centers for accreditation for respective courses.
	Target group	Potential training center and technical institutes
	Impact	At the end, trainers who have attended the training and passed technical tests shall receive certification.

Activity	Description	
Foam Sector – World Bank		
Awareness Raising programme	Objective and activities	a.) Awareness programme will be developed through setting up of advertisements in magazines, environment newspaper, website detailing the Foam Sector Plan, country commitment, the necessity of phase-out of CFC in the foam industrial sector. All these were also promoted in different workshops. b.) Workshops will be conducted to inform about the CFC phase-out plan in general and foam sector phase-out plan in particular for foam enterprises that are considered eligible during revalidation surveys: a. Provide information to enterprises to phaseout CFC-11 and adopt environmentally benign substitute technologies; b. Ensure the phaseout target of CFC-11 consumption in the foam sector is achieved according to schedule; c. Encourage the propagation of low cost, technically suitable substitutes to replace CFC-11 blowing agent; d. Promote the development and dissemination of substitute technology; e. Encourage consolidation and regrouping of enterprises; and f. Ensure that the growth of the foam sector is not affected by meeting the phaseout targets.
	Target group	Public, potential foam enterprises, and stakeholders
Regulatory and Policy	Objective and activities	a.) Conduct series of workshops to develop policy instruments for the CFC-11 PU foam sector. The objective is to inform the targeted audience about the foam sector phase-out programme, government obligation to comply with agreed-upon overall and annual phase-out targets. b.) Meetings/discussions with equipment suppliers and chemical suppliers to assess current application technology using CFC blowing agent, selection of substitutes with ozone friendly substance and substitute technology
	Target group	Provincial government; local bureaus (Bapedalda), and PU foam enterprises
Project Implementation and Management	Objective and activities	a.) Management activities of the Group Coordinator for handling day to day activities of foam sector phase-out plan: i. Set up team work and personnel ii. Training and awareness of personnel iii. Management of the project; b.) Develop a website about ODS phase-out programme, PU Foam Sector Plan, policy actions to be taken or that have been taken, current phase-out activities and CFC technology and its substitute; c.) Trainings/workshops to improve capability of staff in the Ozone Unit, local expert, potential recipients with objectives to (i) promote the Foam Sector Plan to PU enterprises; (ii) familiarize enterprises with the application and implementation process, and encourage enterprises to participate; (iii) familiarize selected experts on the process and the requirements of the Sector Plan; and (iv) train enterprises included in the annual programme so that the enterprises understand implementation schedule and their responsibilities.
	Target group	Group Coordinator, PU enterprises, Ozone Unit, line ministries officials

Monitoring Activities	Objective and activities	a.) Monitoring/supervision of implementation to report to Ozone Unit: (i) Hiring of local consultant to evaluate participating enterprises that are to be included in the programme by visiting the enterprises, verify data and documentation of enterprises, provide visit report to the Ozone Unit. (ii) Monitor implementation, pre-installation and post commissioning of equipment (iii) Advise for preparation and review of bidding document and participation of bid evaluation, supervision of project progress; b.) Participation in international forum, foam exhibitions and comparative study on foam technology and substitute (2006 and 2007); c.) Set up study on foam industry in Indonesia and technology information to increase willingness to phase out CFC in a voluntary basis, minimize lack of readily available and recommend low cost substitute technologies, limited capital resources, need to maintain quality of products and production, recommended actions, analysis of higher operating costs, lower production qualities, higher safety and health concern (2006 and 2007)
	Target group	PU enterprises,

5. Government Action

Policy/Activity Planned	Schedule of Implementation
Type of Policy Control on ODS Import	Continuing enforcement of existing controls
	Establishment of a registration and reporting system for ODS users
	Modification of the existing regulations to introduce a realistic quota/licensing system for ODS imports
Public Awareness	Organization of one public awareness workshop and one workshop for government policy makers and decision makers.
Others	See below

The following activities are proposed for 2005, under the Policy and Management Support component:

a) Continuing implementation of the operational mechanism for participation by enterprises in the Sector Phase-out Plan and for obtaining phase-out commitments from enterprises.

b) Verification of baselines of participating enterprises and confirmation of completion of activities at recipient enterprises.

c) Institution of a National Competency Standard for Refrigeration Technicians.

d) Further interactions with District-level environment impact management agencies, to formalize the mechanism for decentralized enforcement and monitoring of ODS controls.

e) Reporting on the 2004 implementation and preparation of 2006 annual implementation programme.

6. Annual Budgets

6.1 Refrigeration Manufacturing

Activity	Planned Expenditures (US $)
Sector Plan Management and Coordination unit (SPMCU) operation	35,000
Technical Assistance	95,000
Workshops and awareness	25,000
Equipment	1,375,000
Trials and training	82,000
Policy development and enforcement	15,000
Verification and certification	5,000
Contingencies	130,000
TOTAL	**1,762,000**

6.2 Refrigeration Servicing

Activity	Planned Expenditures (US $)
Sector Plan Management and Coordination unit (SPMCU) operation	30,000
Technical Assistance	90,000
Workshops and awareness	25,000
Equipment	200,000
Trials and start-up	30,000
Training	100,000
Policy development and enforcement	5,000
Verification and certification	5,000
Contingencies	15,000
TOTAL	**500,000**

6.3 MAC

Activity	Planned Expenditures (US $)
Sector Plan Management and Coordination unit (SPMCU) operation	60,000
Technical Assistance	24,500
Workshops and awareness	60,000
Equipment	1,202,800
TOTAL	**1,347,300**

6.4. Foam

Activity	Planned Expenditures (US $)
Ongoing monitoring and operations of SPMUC	34,956
Technical Assistance	45,000
Workshops, Training and awareness	105,000
Investment/Equipment	1,440,044
TOTAL*	**1,625,000**

* Amount **does not include** $100,000 advance released at the 42nd ExCom Meeting. The Request for release of the balance of 2004 tranche is $1,625,000.

7. Funding and administrative costs

The funding tranches and administrative support costs for the four sectors requested for the 2005 Annual Implementation Programme, are as below:

Sector	Agency	Tranche Amount (US$)	Support costs (US$)	Total (US$)
Refrigeration Manufacturing	UNDP	1,762,000	156,900	1,918,900
Refrigeration Servicing	UNDP	500,000	43,400	543,400
MAC	World Bank	1,347,300	119,937	1,467,237
Foam *	World Bank	1,625,000	121,875	1,746,875
Total		**5,234,300**	**442,112**	**5,676,412**

* Amount requested for the Foam Sector reflected balance of 2004 tranche, after initial $100,000 was released at 42nd ExCom Meeting

ANNEX 3

Planned Activities for Enterprise level Investment Component

COMPANY	SUB-SECTOR	CFC - 11 Used	ANNUAL ODP TO BE PHASED OUT (MT)				Grant Amount
			2005		2006	2007	2005
			Trial	ODP To be phased out	ODP To be phased out	ODP To be phased out	Total (US$)
Rigid Foam							
Bintang Mas, UD	RPF - Thermoware	5.63	1	5.63	0	0	96891.35
Cipta Karya, CV	RPF – Spray	3.79	1	3.79	0	0.0	96891.4
Mayasari Utama, PT	RPF – Spray	3.08	1	3.08	0	0.0	22891.4
Langgeng Makmur Industri Tbk, PT	RPF - Thermoware	15	1	15	0	0.0	96891.4
Hadi Puteri Kartika Paqsi, PT	RPF – Panel	9	1	9	0	0.0	96891.4
Pangaji Mario Refconindo, PT	RPF – Panel	6.3	1	6.3	0	0.0	102891.4
Bernadi Utama, PT	RPF - Thermoware	2.6	1	2.6	0	0.0	28891.4
Willich Isolasi Pratama, PT	RPF – Pipe	2.05	1	2.05	0	0.0	28891.4
Sadana Ekapraya Amitra, PT	RPF – Panel	0.79	1	0.79	0	0.0	96891.4
Indomatic	RPF – Panel	1.91	1	1.91	0	0.0	96891.4
Citradinamika Interindo	RPF – Panel	3.9	1	3.9	0	0.0	96891.4
Sigma Engineering	RPF – Panel	4.64	1	4.64	0	0.0	96891.4
Harrison, UD	RPF – Panel	0.53	1	0.53	0	0.0	96891.4
Sengon Harpindo Sejati	RPF – Panel	41.6	1	41.6	0	0.0	96891.4
Ditta Insulindo	RPF – Panel	35.67		0	35.67	0.0	96891.4
Sinar Baja Walandra	RPF – Panel	29.00	1	29	0	0.0	96891.4
Sumber Sejahtera Raya	RPF – Panel	27.61		0	27.61	0.0	96891.4
Ero Fibre Glass	RPF – Panel	11		0	11	0.0	96891.4
Shirabu	RPF – Panel	11		0	0	11.0	
Belga Jaya Perkasa	RPF – Panel	0		0	0	0.0	
Total		215.1	15	129.82	74.28	11	1540044.3

* $1,540,044 includes $100,000 advance released at 42nd ExCom Meeting