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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Forty-first Meeting
Montreal, 17 - 19 December 2003

PROJECT PROPOSALS: INDONESIA

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

Fumigant

- Phase-out of the use of methyl bromide in grain storage Canada

Refrigeration

- Sector phase-out plan for elimination of CFCs in the refrigeration (manufacturing) sector (balance of second tranche) UNDP
- Sector phase-out plan for elimination of CFCs in the refrigeration (MAC servicing) sector: 2004 annual programme World Bank
- Sector phase-out plan for elimination of CFCs in the refrigeration (servicing) sector (second tranche) UNDP

**PROJECT EVALUATION SHEET
INDONESIA**

SECTOR: Fumigant

ODS use in sector (excluding QPS): 37.8 ODP tonnes

Sub-sector cost-effectiveness thresholds:

n/a

Project Title:

(a) Phase-out of the use of methyl bromide in grain storage

Project data	Fumigant sector
Enterprise consumption (ODP tonnes)	37.80
Project impact (ODP tonnes)	37.80
Project duration (months)	
Initial amount requested (US \$)	433,620
Final project cost (US \$):	
Incremental capital cost (a)	394,200
Contingency cost (b)	39,420
Incremental operating cost (c)	
Total project cost (a+b+c)	433,620
Local ownership (%)	
Export component (%)	
Amount requested (US \$)	433,620
Cost effectiveness (US \$/kg.)	11.47
Counterpart funding confirmed?	
National coordinating agency	Ministry of the Environment
Implementing agency	Canada

Secretariat's Recommendations	
Amount recommended (US \$)	
Project impact (ODP tonnes)	
Cost effectiveness (US \$/kg)	
Implementing agency support cost (US \$)	
Total cost to Multilateral Fund (US \$)	

PROJECT DESCRIPTION

1. The Government of Canada has submitted a project as bilateral cooperation to phase out 37.8 ODP tonnes of methyl bromide (MB) used for fumigation of stored rice in Indonesia. This represents the total consumption of controlled uses of MB in the country. The MB baseline for compliance is 135.6 ODP tonnes.
2. Indonesia produces about 30 million tonnes of rice annually. Part of this grain (1.23 million tonnes) is stored by the National Logistics Agency (BULOG) for up to 9 months. Grain is fumigated with MB and phosphine by BULOG (for the grain stored in its warehouses) and by ten private fumigators. Fumigations are carried out only if the grain is recognised as being infested.
3. MB is almost the sole fumigant used by the private fumigation companies. The low use of phosphine seems to be due to the high price of aluminium phosphide in Indonesia, as well as to the length of the fumigation and the management of the residual powder.
4. The project proposes to replace all controlled uses of MB in storage applications with phosphine tablets and an integrated stored pest management (ISPM) system.
5. The project includes implementation of an ISPM system, training for fumigators in the use of phosphine tablets, and the provision of basic tools and equipment for proper application of phosphine (such as phosphine meters, gas sampling lines and gas masks).
6. The project also includes a training programme (six trainers) on insect biology related to sanitation and proper use of equipment and methods of applying phosphine. The trainers will in turn train individuals within the fumigation companies. The ISPM system will be implemented through workshops and manuals amount of rice loss due to insects. BULOG will be the coordinating agency for the ISPM training and will provide the material and equipment required for this purpose.
7. The programme also includes drafting and enforcement of policy, legislative and regulatory actions concerning the import and use of MB. These policies are pre-requisites for the successful phase out of MB and have to be in place to ensure no return to the use of MB once alternative measures have been successfully introduced.
8. The total cost of the project has been estimated at US \$433,620. The project will be completed within four years.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

9. The project proposal was first submitted by the Government of Canada for consideration of the Executive Committee at its 40th meeting (UNEP/OzL.Pro/ExCom/40/37). At that time, the Executive Committee was informed that the 2001 MB consumption reported to the Ozone Secretariat (75.6 ODP tonnes) was below Indonesia's 2005 compliance (108.5 ODP tonnes).

Also, the Government of Canada reported that the MB consumption used to calculate the baseline for Indonesia included uses for QPS applications. Since an official letter from the Government of Indonesia confirming that corrected data had been submitted to the Ozone Secretariat had not been received, the Government of Canada withdrew the project.

10. On 23 September 2003, the Government of Indonesia sent a letter to the Ozone Secretariat indicating that the MB consumption reported for the year 1995-1998 included consumption for QPS and non-QPS applications. For that period, the MB consumption for controlled uses of MB was 40.7 ODP tonnes. On the basis of this letter, the Government of Canada has submitted a revised project proposal to the 41st Meeting of the Executive Committee.

11. Subsequently, the Government of Canada informed the Secretariat that the Implementation Committee at its 31st Meeting in November 2003, considered the request by the Government of Indonesia together with more complex requests from other Article 5 countries for increasing baseline consumption. The Implementation Committee did not make a recommendation on Indonesia's request. The Government of Canada "believes that the fact that the IC was not able to approve Indonesia's request for a change of baseline data this year should not prevent the Executive Committee from considering this project, given that Indonesia will need to reduce its non-QPS MB consumption by at least 20 per cent by 2005. Were the IC to approve Indonesia's request to change its MB baseline to 40.7 ODP tonnes in 2004, it will be too late at that point to implement the project in time for Indonesia to meet the 20 per cent reduction. As it is clear that Indonesia's previously reported baseline includes, by error, consumption for QPS applications and that Indonesia has now officially provided the correct baseline by deducting such consumption from the 1995-1998 period, Indonesia requires a phase-out project. Therefore, Canada would be grateful if the Secretariat forwarded this project proposal to the Executive Committee".

12. The alternative technology proposed in the project submitted to the 40th Meeting, was phosphine gas in cylinders together with an ISPM system. The cost effectiveness of the project was US \$22.21/kg. In this regard, the Secretariat questioned the long-term sustainability and cost-effectiveness of the selected technology compared to the use of phosphine in tablets (a proven replacement technology for MB fumigation, easy to apply and which does not require major pieces of equipment).

13. Since the 40th Meeting, the Government of Canada reviewed the project proposal in light of the comments and observations made by the Fund Secretariat. The revised project, submitted to the 41st Meeting, was developed as a technical assistance programme rather than as an investment project, to replace the use of MB with phosphine tablets (rather than phosphine gas in cylinders) and an ISPM system.

RECOMMENDATION

14. The Fund Secretariat and the Government of Canada have agreed on the total cost of the project (US \$350,000). Based on the above considerations, the Executive Committee may wish to consider approval of the project for Indonesia.

PROJECT EVALUATION SHEET INDONESIA

SECTOR: Refrigeration ODS use in sector (2002): 3,402.0 ODP tonnes

Sub-sector cost-effectiveness thresholds: N/A

Project Titles:

- (a) Sector phase-out plan for elimination of CFCs in the refrigeration (manufacturing) sector (balance of second tranche)
- (b) Sector phase-out plan for elimination of CFCs in the refrigeration (MAC servicing) sector: 2004 annual programme
- (c) Sector phase-out plan for elimination of CFCs in the refrigeration (servicing) sector (second tranche)

Project Data	Manufacturing	MAC	Servicing
Enterprise consumption (ODP tonnes)		3,218*	
Project impact (ODP tonnes)	300	200	110
Project duration (months)	12	12	12
Initial amount requested (US \$)	1,600,000	1,347,300	1,805,987
Final project cost (US \$):			
Incremental capital cost (a)			
Contingency cost (b)			
Incremental operating cost (c)			
Total project cost (a+b+c)	1,600,000	1,347,300	1,805,987
Local ownership (%)			
Export component (%)			
Amount requested (US \$)	1,600,000	1,347,300	1,805,987
Cost effectiveness (US \$/kg.)			
Counterpart funding confirmed?			
National coordinating agency		Ministry of Environment	
Implementing agency	UNDP	World Bank	UNDP

Secretariat's Recommendations	
Amount recommended (US \$)	
Project impact (ODP tonnes)	
Cost effectiveness (US \$/kg)	
Implementing agency support cost (US \$)	
Total cost to Multilateral Fund (US \$)	

* The 2003 CFC consumption limit in the refrigeration sector combines manufacturing, mobile air-conditioning (MAC) and servicing sub-sectors.

PROJECT DESCRIPTION

Background

15. On behalf of the Government of Indonesia, UNDP and the World Bank have submitted for the consideration of the Executive Committee the 2003 Annual Progress Reports on the Implementation of the Commercial Refrigeration Manufacturing Sector Plan and the Refrigeration Servicing Sector Plan (UNDP) and the MAC Servicing Sector Plan (World Bank) for ODS Phase-out in the refrigeration sector in Indonesia, together with proposed implementation programmes for 2004. The reports on progress contain an overview of progress since July 2002 for the Commercial Refrigeration Manufacturing Sector Plan and since December 2002 for the Refrigeration Servicing and MAC Servicing Sector Plans, a summary of activities carried out to date under the implementation plan for 2003 and the three Annual Implementation Programmes for 2004 together with requests for release the respective funding tranches.

16. The Executive Committee at its 37th Meeting approved a sector plan for the phase-out of CFC in the refrigeration manufacturing sub-sector in Indonesia to be implemented by UNDP. At the same meeting, the first funding tranche was approved at US \$1,288,000. A new Agreement was approved by the Executive Committee at the 38th Meeting encompassing total CFC phase-out in the refrigeration sector in Indonesia with a funding level of US \$15,627,300. The new Agreement incorporated the Agreement approved at the 37th Meeting to which was added the sector plans for the refrigeration servicing and MAC sub-sectors.

17. At the 40th meeting the Executive Committee approved an advance of the second tranche to enable the continued implementation of the 2002-2003 annual implementation programme of the Commercial Refrigeration Manufacturing Sector Plan by UNDP. This funding was required to supplement the first installment received by UNDP in 2002 that had already been fully committed. The advance was offset against the 2003 installment.

Reports on Progress

18. The 2002 reports on progress are attached to this document. A summary of progress achieved is shown below under the three phase-out plans.

Commercial Refrigeration Manufacturing Sector Plan (UNDP)

Total funds received: US \$1,888,000;
2002 phase-out target: 0.0 ODP tonnes;
2003 phase-out target: 90 ODP.

- UNDP and the Ministry of Environment agreed on the Operational Mechanism for Implementation which delineated the roles and responsibilities of the various stakeholders; UNDP's first-phase project document was fully signed by all parties in May 2003;

- UNDP prepared the technical specifications for the equipment to be procured for the first group of enterprises, in February 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 group of participating enterprises amount to about US \$1.6 million. Installation and commissioning of the equipment in early 2004 will lead to the achievement of the phase-out targets of about 300 ODP tonnes by the end of 2004.
- The verification of baselines at the first batch of enterprises was concluded in July 2003. The verification of enterprises in future groups for participation/procurement has been initiated and is an ongoing exercise.
- The Ministry of Environment has continued the implementation and enforcement of regulations related to ODS use by the Government of Indonesia.
- Two workshops were held in January 2003 for the prospective recipient enterprises, government and institutional stakeholders, and decision makers.
- Through the completion of six ongoing projects by November 2003, the 2003 annual CFC phase-out target of 90 ODP tonnes phase-out would be achieved.

Refrigeration Servicing Sector Plan (UNDP)

Total funds received: US \$2,196,758;
 2002 phase-out target: 0.0 ODP tonnes;
 2003 phase-out target: 0.0 ODP tonnes.

- The first tranche of US \$2,196,758 was received by UNDP in December 2002. UNDP and the Ministry of Environment agreed on the Operational Mechanism for Implementation which delineated the roles and responsibilities of the various stakeholders. UNDP's first-phase project document was fully signed by all parties in August 2003.
- The recovery and recycling programme targeted and initiated the participation of about 385 servicing establishments during 2003. The first list of about 170 servicing establishments was provisionally endorsed by the Ministry of Environment in September 2003 for participation in the recovery and recycling programme.
- A survey of training establishments was carried out during May-July 2003. About 134 training establishments were identified for participation in the recovery and recycling programme, through the provision of demonstration recovery and recycling equipment.
- UNDP prepared the technical specifications for the equipment to be procured for the first group of enterprises in October 2003. The procurement steps, such as evaluation of bids, UNDP procurement committee approvals, and finalization of vendors are expected to be completed in November 2003.
- Upon completion of all activities in the first and the second groups of servicing and training establishments, encompassing a total number of 920 servicing workshops, the reduction in CFC consumption for servicing is anticipated to be some 220 ODP tonnes in 2004 and 2005.

MAC Servicing Sector Plan

Total funds received: US \$1,369,800;
2002 phase-out target: 0.0 ODP tonnes;
2003 phase-out target – 220 ODP tonnes.

- The management of the MAC servicing sub-sector was organized along with the Refrigeration Manufacturing and Servicing sub-sectors by the formulation of a Sector Plan Management and Coordination Unit (SPMCU) consisting of a programme manager and three operation assistants, each overseeing the implementation of the corresponding sector, namely refrigeration manufacturing, refrigeration servicing and MAC. The personnel of SPMCU were recruited in June 2003 and this unit became operational at that time.
- Enterprise level activities: so far, 260 workshop establishments have been visited and surveyed, and contracts were signed with 216 of them. These 216 enterprises consume a cumulative amount of 254.5 ODP tonnes.
- There were delays in the approval of the budget within the Ministry of Environment. After resolution of the delays, the procurement of recycling equipment is presently underway.
- The implementation of policy and regulation activities is merged with that of the other refrigeration sub-sectors as the whole programme needs integrated policies and regulations. The Ministry of Environment continued the implementation and enforcement of the Government of Indonesia's regulations related to ODS use.
- Improving the import and export monitoring and control system for ODS in Indonesia is the main tool for meeting the performance agreements under the sector plans and this will ensure that Indonesia will meet its reporting obligations under the Montreal Protocol. Indonesia is in the process of setting up a realistic quota system reflecting the actual informal importers and the ODS demand in the market, which is within the aggregate ODS consumption allowed under the sector plans.

CFC reduction targets

19. The 2003 CFC reduction targets as defined in the three sector plans are reproduced in the table below:

	2002	2003
Annual CFC consumption limit in refrigeration manufacturing sub-sector	1,231	1,231
Annual phase-out target in the refrigeration manufacturing sub-sector (UNDP): reduction from ongoing projects	0	90
Annual phase-out target in the refrigeration manufacturing sub-sector (UNDP): reduction from the plan	0	0
Annual CFC consumption limit in the MAC servicing sub-sector	915	915
Annual phase-out target in the MAC servicing sub-sector (World Bank): reduction from the plan	0	220
Annual CFC consumption limit in the refrigeration servicing sub-sector	1,072	1,072
Annual phase-out target in the refrigeration servicing sub-sector (UNDP): reduction in the plan	0	0
Total annual CFC consumption limit in the refrigeration sector	3,218	3,218
Total ODP phase-out in the refrigeration sector	0	310

20. The reduction of the established 2003 annual consumption limit of 3,218 ODP tonnes by the total phase out of 310 ODP tonnes will ensure that the CFC consumption limit of in 2004 would not exceed 2,908 ODP tonnes.

2004 Annual Implementation Programmes and requested funding

21. Annual 2004 implementation programmes and associated budgets related to the implementation of the three sector plans are included in the Agencies' reports attached to this document.

Refrigeration Manufacturing Sector Plan

- The 2004 Annual Implementation Programme will ensure the phase out of about 300 ODP tonnes of CFC upon completion in CY 2004 and about 150 ODP tonnes in CY 2005.
- An advance of US \$600,000 against the second tranche of US \$2,200,000 was approved at the 40th Executive Committee Meeting in July 2003 and released to UNDP in August 2003. As per the disbursement schedule in Table 1 of the Agreement between the Executive Committee and the Government of Indonesia, the Executive Committee is requested to approve the 2004 Annual Implementation Programme and the release of the

remaining 2003 funding of US \$1,600,000 and the corresponding support fees of US \$141,100.

Refrigeration Servicing Sector Plan

- The 2004 Annual Implementation Programme will ensure the phase out about 200 ODP tonnes of CFCs
- As per the disbursement schedule in Table 1 of the Agreement between the Executive Committee and the Government of Indonesia, the Executive Committee is requested to approve the 2004 Annual Implementation Programme and the release of the 2003 funding of US \$1,805,987 and the corresponding support fees of US \$160,939.

MAC Servicing Sector Plan

- The 2004 Annual Implementation Programme will ensure the phase out of 110 ODP tonnes.
- As per the disbursement schedule in Table 1 of the Agreement between the Executive Committee and the Government of Indonesia, the Executive Committee is requested to approve the 2004 Annual Implementation Programme and the release of the 2003 funding of US \$1,347,300 and the corresponding support fees of US \$119,937.

22. The implementation of the three Annual Implementation Programmes will lead to the total CFC phase-out of 610 ODP tonnes, which will be deducted from 2004 annual consumption limit.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

Commercial Refrigeration Manufacturing Sector Plan

23. The Secretariat sought confirmation from UNDP regarding the date of completion of six on-going commercial refrigeration projects, which are to contribute to the reduction of CFC consumption of 90 ODP tonnes. UNDP confirmed that these projects were completed as of early November 2003 and the relevant documentation will be provided as appropriate.

Refrigeration Servicing Sector Plan

24. The 2004 CFC phase-out target is established at 200 ODP tonnes in the Servicing Sector Plan. The major portion of this reduction (140 ODP tonnes) is supposed to be achieved through the procurement and installation of 435 recovery and recycling sets. The remaining CFC reduction will be achieved through retrofitting (40 ODP tonnes) and training (20 ODP tonnes). The total impact of introduction of the recovery and recycling system in Indonesia was estimated at 213 ODP tonnes (Section 4.1.1 of the Plan). The majority of this assessed amount of refrigerant was in the domestic refrigeration sub-sector (145 ODP tonnes). UNDP is planning to use about US \$3.0 million from the first installment approved and from the requested

2004 tranche for procurement of 435 sets of recovery and recycling equipment. This represents about 63% of the total cost of the Plan.

25. UNDP was advised that the Secretariat has continuously been receiving information through progress reports, project completion reports (PCRs), reports and presentations by National Ozone Units (NOUs) at network meetings, and from other sources indicating the limited capabilities and results from recovery and recycling operations. The quantities of CFCs recovered seem to consistently be below the forecasts in relevant project documents. The amount of CFCs processed through recycling centres for re-use is very small.

26. The Secretariat pointed out to UNDP that a fact finding mission to Indonesia was undertaken as part of a study in the domestic and commercial refrigeration sector carried out by UNEP. In regard to recovery and recycling, the report indicated that “recovery of CFCs from, for instance, domestic refrigerator systems is not considered to be a very profitable business: the charge of the system is so low that most of the refrigerant is left in the tubing and never reaches the storage cylinder. Most of the equipment that is brought in for service is already empty, leaks being the reason. Recovery and recycling is not an issue and is, at this moment, also not stimulated and/or encouraged by the Government.”

27. In light of this information the Secretariat cautioned UNDP that if the funding is committed for recovery and recycling equipment and activities, and the forecasted phase-out is not achieved, the country’s compliance objectives could be compromised. A more thorough and realistic assessment of the stock of refrigerant in the refrigerant equipment available for recovery and recycling, and the practicalities of recovering and recycling it would be beneficial. There may be a need to incorporate a more flexible approach to implementation.

28. The Secretariat noted that in Decision 22/23, the Executive Committee urged the implementing agencies “to work with the countries concerned to ensure that the prerequisites for success were put in place before refrigerant recovery and recycling projects were implemented.”

29. UNDP responded that the issue of recovery and recycling needs to be examined from the perspective of the availability of CFCs at reasonable costs. It is expected that the availability of CFCs will progressively decrease and CFC prices will progressively increase. The reduced availability of CFCs and the control of CFC usage through various policy and regulatory instruments will improve the success of recovery and recycling in Indonesia. The Government will review this issue prior to the issuance of the purchase orders which are expected to take place toward the end of 2003, and will make the necessary adjustments as the situation and conditions warrant. In regard to the import licensing system, UNDP advised that the Ministry of Environment of Indonesia issued a decree in 2002 that allows only “registered importers” to import CFCs. Other supportive policy and regulations are expected to be in place within the next 1-2 years.

MAC Servicing Sector Plan

30. The 2003 annual phase-out target in the MAC sector is established at 220 ODP tonnes. The Secretariat noted that the procurement of recovery and recycling equipment was delayed in 2003. Given the time required for installation and training of personnel, the equipment is

expected to be operational in 2004. The Secretariat indicated to the World Bank that under such circumstances, the achievement of the established 2003 phase-out target might be at risk. The World Bank reported that the reduction of CFC consumption in the MAC sector represents only a portion of the total reduction target in the refrigeration sector as a whole and that the 2003 CFC consumption in the sector can only be verified in 2004.

CFC consumption limit

31. The Government of Indonesia reported to the Secretariat that the 2002 consumption in the refrigeration sector was 3,402 ODP tonnes. According to the Agreement, there is no CFC consumption limit in 2002 in the refrigeration sector in Indonesia. The first control target is the 2003 CFC consumption limit established at the level of 3,218 ODP tonnes. This consumption will be reported on and verified in 2004. The total reduction target for the three sector plans is 310 ODP tonnes in 2003. Achievement of this target will bring the CFC consumption limit to 2,908 ODP tonnes in 2004.

Annual independent audit

32. The implementation modalities as outlined in the sector plans stipulate that an annual independent audit would be conducted by implementing agencies for verification of 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. The Secretariat drew to the attention of UNDP and the World Bank the importance of timely establishment of an independent auditing system in Indonesia and noted that 2004 Annual Implementation Programmes do not contain the required actions. UNDP responded that in order to provide verification of established 2003 CFC consumption limit and to ensure that the associated activities have been accomplished, UNDP and the Ministry of the Environment will subcontract an independent entity to conduct verification of the national consumption level in the refrigeration sector through auditing of the production, import, and export data in 2004. The independent entity will also conduct verification that activities stipulated in the 2003 Annual Programme have been carried out. The World Bank also indicated that the CFC-12 consumption in the MAC sector at the national level would be independently verified through the improved import and export monitoring and control system for ODS in Indonesia. While the agencies have provided a general outline of their intention to undertake independent audits, the Secretariat considers that future reports should provide a more thorough explanation of the modalities to be established to verify consumption levels.

RECOMMENDATION

33. The Executive Committee may wish to consider approval of the funding tranches for the implementation of 2004 annual programmes under the sector plans for refrigeration manufacturing, refrigeration servicing and MAC servicing as contained in the Agreement approved at the 38th Meeting. The requested amounts together with the associated agency support costs are presented below.

Project	Project Funding (US\$)	Support Cost (US\$)
Refrigeration Manufacturing Sector Plan (UNDP)	1,600,000	141,100
MAC Servicing Sector Plan (World Bank)	1,347,300	119,937
Refrigeration servicing Sector Plan (UNDP)	1,805,987	160,939

**SECTOR PHASE-OUT PLAN FOR ELIMINATION OF CFCs IN THE REFRIGERATION
(MANUFACTURING) SECTOR IN INDONESIA**

**REPORT ON THE IMPLEMENTATION OF CY 2002 - 2003 ANNUAL PROGRAMME AND
REQUEST FOR THE RELEASE OF THE SECOND FUNDING TRANCHE**

Prepared By

**SECTOR PHASE-OUT PLAN MANAGEMENT & COORDINATION UNIT (SPMCU),
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UNDP

**SECTOR PHASE-OUT PLAN FOR ELIMINATION OF CFCs IN THE REFRIGERATION
(MANUFACTURING) SECTOR IN INDONESIA**

Report on CY 2002-2003 Implementation Programme and Request for Release of Second Tranche
(As of 15 October 2003)

1. Background

The Sector Phase-out Plan for Elimination of CFCs in the Refrigeration (Manufacturing) Sector in Indonesia was approved at the 37th Meeting of the Executive Committee of MLF, at a total funding level of US\$ 6,398,000, to be provided in five annual tranches, leading up to the complete phase-out of CFCs in the Refrigeration (Mfg) Sector in Indonesia by 01 January 2008.

The Phase-out Plan will be implemented through five annual implementation programmes and together with the implementation of the approved ongoing projects, will result in the complete phase-out of CFCs in the Refrigeration (Mfg) Sector in Indonesia in four years. The Phase-out Plan will cover the technology conversions in all the remaining eligible enterprises in the Refrigeration (Mfg) Sector and also ensure timely, sustainable and cost-effective phase-out in the Refrigeration (Mfg) Sector through a combination of investment, technical support and management components.

The breakdown of the approved overall funding was as below:

Investment Component:	US\$ 6,123,000 (including contingencies)
Policy/Management Component:	US\$ 275,000
Total:	US\$ 6,398,000

The extract of 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 disbursement schedule and annual CFC consumption and phase-out control targets, pertaining to the Refrigeration (Mfg) Sector in Indonesia, is reproduced below:

Parameter	2002	2003	2004	2005	2006	2007	2008	Total
Annual CFC Consumption limit in the Refrigeration Sector (ODP MT)	NA	3,218	3,018	2,408	1,698	966	0	N/A
Annual CFC phase-out target in the Refrigeration (Mfg) Sector (ODP MT)	0	90	300	300	300	241	0	1,231
Annual Funding Installment * (US\$)	1,288,000	2,200,000	1,762,000	750,000	217,000	181,000	0	6,398,000
Agency Support Costs* (US\$)	111,920	194,000	156,900	67,500	19,530	16,290		566,140

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

The annual implementation programme for CY 2002-2003 was submitted to MLF in November 2002 (attached as Annex-1 to this document).

2. Preparatory Activities

- The first tranche of US\$ 1,288,000 was received by UNDP in August 2002. An additional US\$ 600,000 was approved at the 40th ExCom Meeting and 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-phase project document covering the first tranche 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 phase project document was signed by Government in April 2003.
- The UNDP first-phase project document was fully signed for all parties in May 2003.

3. Investment Component

3.1 Enterprise Participation

The first list of participating enterprises was provisionally endorsed by KLH in April/May 2003. Upon verification of the enterprise baselines by KLH and UNDP, the final endorsement of the 40 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 CY 2004 and 2005), the CFC phase-out that would be achieved, would contribute 443 MT to the CY 2004 and CY 2005 annual CFC phase-out target.

3.2 Procurement

- UNDP notified 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 Development Business, UNDP's Inter-Agency Procurement Services Office (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 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. Installation and commissioning of the equipment in early 2004 will lead to achieving the phase-out targets of about 300 ODP tonnes at the end of 2004.

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

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

A National Programme Manager and two staff for the SPMCU were recruited and the Unit became fully operational in June 2003.

4.2 Enterprise Participation

- The operational mechanism for enterprise participation in the Sector Phase-out Plan was finalized by KLH in consultation with UNDP.
- The verification of baseline at the first batch of enterprises was concluded in July 2003. This included plant visits by KLH/SPMCU and UNDP, and collection of participation documentation and commitments from the enterprises in line with KLH regulations.
- The verification of enterprises in future batches of participation/procurement has been initiated and would be an ongoing exercise.

4.3 Other Policy, Regulatory and Awareness Actions

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

5. CFC Phase-out and Results

The annual CFC phase-out target for CY 2003 is 90 MT, to be achieved through the completion of ongoing projects. Through the completion of six ongoing projects by November 2003, the CY 2003 annual CFC phase-out target would be achieved (see Annex-2).

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

6. 2004 Annual Implementation Programme

The 2004 Annual Implementation Programme is submitted for the review and approval of the Executive Committee. The 2004 Annual Implementation Programme will phase out about 150 ODP MT of CFC upon completion in CY 2004 and about 150 ODP MT in CY 2005.

As per disbursement schedule in Table 1 of the Agreement between the MLF and the Government of Indonesia, \$600,000 advance against the second tranche of \$2,200,000 was approved at the 40th Executive Committee Meeting in July 2003 and released to UNDP in August 2003. The Executive Committee is requested to approve the 2004 Annual Implementation Programme and the release of the remaining 2003 funding level of \$1,600,000 and the corresponding support fees of \$141,100.

INDONESIA
Refrigeration (Manufacturing) Sector Phase-out Plan
Annual Implementation Program (Tranche 1) for CY 2003

1. Data

Country	Indonesia
Year of plan	2003
Number of years completed	0
Number of years remaining under the plan	5
Target ODS consumption in Sector for the preceding year (ODP MT)	1,231
Target ODS consumption in the Sector for the year of plan (ODP MT)	1,231
Level of funding requested (US\$)	1,600,000
Lead implementing agency	UNDP
Co-operating agency (ies)	N/A

2. Targets

Target:	Preparatory technical assistance and policy/management support activities			
Indicators		Preceding Year	Year of Plan	Reduction
Supply of ODS (ODP MT)	Import	5,585	5,585	0
	Production	0	0	0
	Total (1)	5,585	5,585	0
Demand of ODS (ODP MT)	Manufacturing	1,231	1,231	0
	Servicing	N/A	N/A	N/A
	Stock piling	N/A	N/A	N/A
	Total (2)	1,231	1,231	0

3. Industry Action

Sector	Consumption Preceding Year (1)	Consumption Year of Plan (2)	Reduction within Year of Plan (1) - (2)	No. of Projects Complete	Number of Servicing Related Activities	ODS Phase-Out (ODP MT)
Refrigeration (Mfg) Sector	1,231	1,231	0	0	0	0

It is envisaged that the phase-out of CFCs in ongoing projects in the Refrigeration (Manufacturing) Sector amounting to 90 MT, will be accomplished during 2003.

4. Technical Assistance

Activity	Description	
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	Recipient enterprises
	Impact	Finalization of specifications and vendor shortlists, international competitive bidding and issuance of purchase orders/contracts

The technical assistance activities would be initiated through sub-projects for about 30 enterprises, leading to an elimination of about 170 MT of CFCs upon completion, envisaged for 2004. It is foreseen that the durations for the sub-projects for these 20 enterprises would be set in such a way as to ensure that their completion would contribute to about 57% of the verifiable annual performance target for CY 2004 (300 MT) leading to a minimum phase-out of about 170 MT CFCs through the Sector Phase-out Plan. The balance of the 2004 target would be met through the second funding tranche to be obtained in 2003.

5. Government Action

Policy/Activity Planned	Schedule of Implementation
Type of Policy Control on ODS Import	Continuing enforcement of existing controls
Public Awareness	N/A
Others	See below

The following activities are proposed for 2002, under the Policy and Management Support component:

- a) Completing recruitment and allocation of coordinating personnel within the ozone unit for plan management
- b) Continuing implementation of the operational mechanism for participation by enterprises in the Sector Phase-out Plan and for obtaining phase-out commitments from enterprises.
- c) Organization of one awareness workshop for the sector.
- d) Initiating establishment of product and practices standards for the sector
- e) Preparation of annual implementation programme

6. Annual Budget

Activity	Planned Expenditures (US \$)
Operation of Sector Plan Management and Coordination unit (SPMCU)	60,000
Technical Assistance	90,000
Workshops and awareness	20,000
Equipment	1,300,000
Contingencies	130,000
TOTAL	1,600,000

7. Administrative Fees

The administrative fees will be utilized by UNDP throughout the implementation of this tranche.

INDONESIA
Refrigeration (Mfg) Sector Phase-out Plan

Projects in the Refrigeration (Mfg) Sector (to be) Completed during CY 2003

UNDP Project Number	MLF Project Number	Project Name	Approved Grant (US\$)	ODS (MT/y)	ODP (MT/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 would achieve all project objectives and meet 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 targeted for November 2003.
2. HOPs for these projects are targeted to be issued and signed before December 2003.
3. The annual **CFC phase-out target for CY 2003**, in accordance with the schedule agreed in the Indonesia Refrigeration (Mfg) Sector Phase-out Plan is **90 MT**.

**SECTOR PHASE-OUT PLAN FOR ELIMINATION OF CFCs IN THE REFRIGERATION
(MANUFACTURING) SECTOR IN INDONESIA**

Annual Implementation Program (Tranche 2) for CY 2004

1. Data

Country	Indonesia
Year of plan	2004
Number of years completed	1
Number of years remaining under the plan	4
Target ODS consumption in Sector for 2003 (ODP MT)	1,231
Target ODS consumption in Sector for 2004 (ODP MT)	1,141
Level of funding requested (US\$)*	1,600,000*
Lead implementing agency	UNDP
Co-operating agency (ies)	N/A

* Represents the net funding request. The original tranche amount was US\$ 2,200,000, of which, US\$ 600,000 was released in advance in July 2003, in accordance with the provisions of the Agreement between Indonesia and the Executive Committee.

2. Targets

Target:	CFC phase-out target for 2004 in the Refrigeration (Mfg) Sector: 300 MT			
Indicators		Preceding Year	Year of Plan	Reduction
Supply of ODS (ODP MT)	Import	5,585		0
	Production	0	0	0
	Total (1)	5,585		0
Demand of ODS (ODP MT)	Manufacturing	1,231	1,141	90
	Servicing	N/A	N/A	N/A
	Stock piling	N/A	N/A	N/A
	Total (2)	1,231	1,141	90

3. Industry Action

Sector	Consumption Preceding Year (1)	Consumption Year of Plan (2)	Reduction within Year of Plan (1) - (2)	No. of Projects Complete	Number of Servicing Related Activities	ODS Phase-Out (ODP MT)
Refrigeration (Mfg) Sector	1,231	1,141	90	6	0	90

It is envisaged that the phase-out of CFCs through completion of enterprise-level activities for the first batch of enterprises in the Refrigeration (Manufacturing) Sector would contribute 300 MT to the CFC phase-out target for CY 2004.

4. Technical Assistance

Activity	Description	
Workshop for user industry	Objective	Initiating enterprise participation and phase-out activities for the second batch of participating enterprises
	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 for the second batch of participating enterprises
	Target group	Second batch of recipient enterprises
	Impact	Finalization of specifications and vendor shortlists, international competitive bidding and issuance of purchase orders/contracts

The technical assistance activities would be initiated through sub-projects for about 30 enterprises, leading to an elimination of about 150 MT of CFCs upon completion in 2004 and about 150 MT of CFCs in 2005. It is foreseen that the durations for the sub-projects for these 30 enterprises would be set in such a way as to ensure that their completion would contribute to about 50% of the verifiable annual performance target for CY 2005 (300 MT) leading to a minimum phase-out of about 150 MT CFCs through the Sector Phase-out Plan. The balance of the 2005 target would be met through the third funding tranche to be obtained in 2004.

5. Government Action

Policy/Activity Planned	Schedule of Implementation
Type of Policy Control on ODS Import	Continuing enforcement of existing controls
Public Awareness	N/A
Others	See below

The following activities are proposed for 2004, under the Policy and Management Support component:

- a) Continuing monitoring of Plan implementation activities, continuing implementation of the operational mechanism for participation by enterprises and obtaining phase-out commitments from enterprises.
- b) Organization of one user industry workshop.
- c) Organization of one awareness workshop.
- d) Initiating establishment of product and practices standards for the sector
- e) Preparation of annual implementation programme

6. Annual Budget

Activity	Planned Expenditures (US \$)
Operation of Sector Plan Management and Coordination unit (SPMCU)	60,000
Technical Assistance	90,000
Workshops and awareness	20,000
Equipment	1,300,000
Contingencies	130,000
TOTAL	1,600,000

7. Administrative Fees

The administrative fees will be utilized by UNDP throughout the implementation of this tranche.

**REFRIGERATION SECTOR PHASE-OUT PLAN:
MOBILE AIR CONDITIONER (MAC)
SERVICING SECTOR
2004 ANNUAL PROGRAM**

**SECTOR PLAN MANAGEMENT AND
COORDINATION UNIT
MINISTRY OF ENVIRONMENT**

AND

THE WORLD BANK

October 22, 2003

Data Sheet

Country	Indonesia
Year of plan	2004
Number of years completed	1
Number of years remaining under the plan	4
Ceiling of ODS consumption of the preceding year (ODP MT)	695
Target ODS consumption of the year of plan (ODP MT)	585
Total MLF funding approved in principle (38th Excom Meeting) (US\$)	4,317,000
Total MLF funding released to the Bank by Oct 2003 (US\$)	1,369,800
Level of funding requested for the 2004 Annual Plan (US\$)	1,347,300
National Implementing operating agency	Ministry of Environment
Implementing agency	World Bank

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The MAC Sector Plan

BACKGROUND

1. In accordance with the Executive Committee's approval of the Sector Plan for the Phaseout of the use of CFC-12 in the Mobile Air Conditioning Sector in Indonesia (IDS/REF/38/INV/153), Indonesia is hereby requesting release of the second tranche of US\$1,347,300 for implementation of the year 2004 Annual Program. With this funding, Indonesia's CFC-12 consumption for servicing in the MAC sector will be reduced to a maximum of 695 MT in 2004. Details of the annual program are in Part B.
2. After the approval of the Indonesia MAC Sector Plan at the 38th meeting of the ExCom and release of funds for the first (2003) Annual Program, Indonesia began implementation of the MAC Sector Strategy. The national consumption level of CFC-12 allowed for 2003 in the MAC sector is 805 MT. A detailed implementation status is provided in Part A.
3. This phaseout result have been achieved through close cooperation between the Ministry of Environment (KLH), Group Coordinating agency (Dasa Windu Agung) and the concerned enterprises. The experience from the implementation has confirmed the necessity of strong policy enforcement and monitoring of the MAC phaseout program. Training and public awareness are key elements in the MAC sector plan implementation due to the number and geographical distribution of the enterprises involved.

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

4. The extract of 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 disbursement schedule and annual CFC consumption and phase-out control targets, pertaining to the MAC Servicing sub-Sector in Indonesia, is reproduced below:

Year	National CFC consumption limit		Annual CFC Consumption limit in the Refrigeration Sector (ODP MT)		Annual CFC consumption limit in the MAC Servicing sub-sector (ODP MT)		MLF funding for the MAC sector annual programs**
	Planned *	Actual	Planned	Actual	Planned	Actual	
2002		5,585	NA		915	915	
2003	NA		3,218		805		1,369,800
2004	NA		3,018		695		1,347,300
2005	NA		2,408		585		1,347,300
2006	NA		1,698		475		126,800
2007	NA		966		365		125,800
2008	0*		0		0		0
2009	0*		0		0		0
2010	0		0		0		0

* As per Country Program Update.

** To be released with the approval of the annual program at the last meeting of the preceding year

Part A

Implementation Status Of 2003 Annual Program

Background

1. The National Plan for Phasing Out the Use of CFC-12 in the Mobile Air Conditioning Sector through a Combination of Policies; Technical Assistance Program and CFC-12 Recycling and Recovery was approved at the 38th Meeting of the Executive Committee of MLF, at a total funding level of US\$ 4,317,000, to be provided in five tranches, facilitating the complete phase-out of CFC-12 in the Mobile Air Conditioning (MAC Servicing) Sub-Sector in Indonesia by 01 January 2008. The first tranche of US\$ 1,369,800 for implementation of the 2003 annual program was released with the approval of the sector plan at the 38th meeting of the ExCom in November 2002.

2. This MAC servicing sub-sector will facilitate elimination of all the remaining eligible CFC consumption in the mobile air conditioning sub-sector in Indonesia, upon completion. The MAC will be implemented through five annual implementation programs and together with the implementation of the approved ongoing projects in the Refrigeration Sector, is expected to result in the complete phase-out of CFCs in the Refrigeration Sector in Indonesia in five years. The MAC will address the conversion requirements in the mobile air conditioning sub-sector for ensuring a timely, sustainable and cost-effective phase-out, through a combination of policies and technical assistance components. investment, technical support and policy/management support components.

Progress in Project Preparation

3. The management of the MAC servicing sub-sector was organized along with Refrigeration Manufacturing and Servicing sub-sectors by the formation of Sector Plan Management and Coordination Unit (SPMCU) consisting of a Programme Manager and three Operation Assistants each overseeing the implementation of corresponding sector, namely Refrigeration Manufacturing, Refrigeration Servicing and MAC. The personnel of SPMCU was recruited in June 2003 and this unit became operational on that date.

4. SPMCU has completed office establishment in the LH building, which also facilitated the renovation of the overall office space for the staff of Assistant Deputy 3 overseeing atmosphere and climate change. SPMCU office is equipped with adequate furniture, computers and telecommunication lines allowing SPMCU to work independently.

5. **Policy Action and Regulation.** The implementation of this activity is merged with that of the other refrigeration Sub-Sector as the whole program needs an integrated policy and regulation. KLH continued the implementation and enforcement of the Government of Indonesia regulations related to ODS use. 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.

Import and Export Monitoring and Control System for ODS

Improving the Import and Export Monitoring and Control System for ODS in Indonesia is essential to Indonesia, as this is the main tool for meeting the performance agreements under the sector plans and will ensure that Indonesia will meet its reporting obligations under the Montreal Protocol. Indonesia is in the process of setting up a realistic quota system reflecting the actual informal importers and the ODS demand in the market which is within the aggregate ODS consumption allowed under the sector plans. The national coordinating agency (ITB) will conduct a training workshop for customs agencies and 55 informal importers. It is envisaged that quotas will be issued to eligible importers on an annual basis, and that each importer will be entitled to a quota based on historical imports and adjusted so the aggregate import is within the allowed annual consumption. The import quota system will allow control of import of each ODS substance in accordance with the overall agreements. It is under research if it is possible to develop a system where the consumption in each ODS consuming sector can effectively be monitored.

2. Enterprise level activities: This component focuses on enabling the MAC servicing enterprises to physically reduce CFC-12 usage in their servicing activities, thereby reduces the import need for CFC in the country. The main activity of this component is to assist the participant enterprises to build their capacity in best practice in MAC servicing by improving their knowledge and technique on managing CFC-12 in the air conditioning system by providing training in and equipment for recovery and recycling program. This program will target a total CFC-12 consumption of 220 MT ODP by the end of 2003.

6. The implementation of the recovery and recycling program has been carried out by PT Dasa Windu Agung (DWA), the Group Coordinator of MAC Sector Plan as signified under the Sub-grant Agreement Document of July 17, 2003. DWA has initiated the activity with surveying and registering potential recipient establishments. So far, 260 workshop establishments have been visited and surveyed, and 216 of them have responded by submitting their application to participate in the program. These 216 enterprises carry a cumulative ODP of 254.5 MT which is over the 2003 phase-out target of 220 MT ODP.

7. **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. The activity of Training of Trainers was 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, identifying candidates for trainees and collaborate with training establishment already identified in the preliminary stage.

8. **Public Awareness.** This activity has been integrated with the other

Refrigeration sub-sectors i.e. manufacturing and servicing whenever appropriate, such as in the workshops for stakeholders.

9. **CFC Phase-out and Results:** The target of CFC-12 phase-out under the Mobile Air Conditioning (MAC) for 2003 is 220 MT. The completion of activities in recovery and recycling involving 216 enterprises recommended by DWA would phase out some 254,5 MT ODP and the target would have been reached.

PART B

2004 ANNUAL PROGRAM

Objectives

1. The phaseout objective of the 2004 annual program is to ensure that: (i) the national CFC-12 consumption limit of 695 MT will not be exceeded in 2004. Indonesia is requesting the release of the approved amount of US\$ 1,347,300 for the 2004 annual program as agreed in the overall MAC Sector Phaseout Plan. can be met.

Phaseout Targets

Target:		Procurement actions, training actions, technical assistance and policy/management support activities		
Indicators		Preceding Year	Year of Plan	Reduction
Supply of ODS (ODP MT)	Import	5,585	5,585	0
	Production	0	0	0
	Total (1)	5,585	5,585	0
Demand of ODS (ODP MT)	Manufacturing	N/A	N/A	N/A
	MAC Servicing	805	695	0
	Stock piling	N/A	N/A	N/A
	Total (2)	805	695	110

Policy Actions. The following activities will be continued and/or promulgated to support implementation of the 2004 Annual Program

- (i) *Discussion with other related government agencies* - to develop possible measures/regulations such as: a) ban on new MAC installations with CFC, b) venting ban, c) compulsory use of recovery until when the system is serviced or decommission; d) prohibition of mislabeling containers, e) training for proper method in MAC servicing sector, procurement of around of refrigerant identifiers, in supports to policy action, will be concluded based on recommended actions with the government agencies.
- (ii) *Issuance of certification* –Certification will be provided to MAC service shops that have joined and passed technical examination of technicians

Enterprise-level activities

The 2004 Annual Program aims to eliminate the consumption of 110 MT of CFC-12 by installing about 100 recycling machines. Due to a geographical spread of service shops in the country, the program divides its distribution into eight regions;

1. Jakarta
2. West Java
3. Central Java
4. East Java

5. Bali & Nusa Tenggara
6. Sumatra
7. Kalimantan
8. Sulawesi & east Indonesia

Considering a large number of service shops that are mainly concentrated in Java Island, the first two implementation programs will be concentrated in cities in Java particularly in Jakarta, West Java & East Java.

All contracts for conversion projects are expected to be signed in the early 2004 and implementation may take one and half years. In addition, during the period of the 2004 Annual Program, service shops' identification will be carried out in several ways, in cooperation with MAC distributors, Ministry of Industry, Provincial bodies, upstream suppliers of CFC-12, MAC service shops, car manufacturers, and car associations.

Technical assistance (TA) Activities

TA activities under the MAC Sector Plan's 2004 Annual Program 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 PMU; (e) project implementation that will be subcontracted to an independent institution, and; (f) information exchange. The main TA activities proposed for the First Implementation Program include the following:

- (i) *Workshops to MAC service shop personnel involved in implementation of phase-out activities* – 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;
- (ii) *National workshops* - 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, (d) government commitment to CFC-12 phase-out, and (e) alternative technology. 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;
- (iii) Launch promotional program to encourage public to have MAC systems repaired by certified technicians.
- (iv) **Train the Trainer Program.** The program will continue from the first implementation period into the 2004 Annual Plan period. This program is organized to minimize (a) current practice of topping up refrigerant without fixing leaks; (b) education for proper service method. At the end, technicians who have attended the training and passed technical tests shall receive certification. Under the planned duration, the program 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.
- (v) **Development of Standard Inspection Manual** – An inspection Manual shall be developed within the first implementation period to equip MAC distributors and service shops identifying different types of refrigerants contained in MAC system;
- (vi) **Development and Printing of pamphlets** - stickers shall be produced for car owners to identify refrigerant type in the MAC unit, name of the shop that last worked on the system, date of last serviced, and type of service made;
- (vii) **Trainings** - Training sessions shall be held to empower voluntary agreements with MAC service shops and components suppliers. Training about usage and function of refrigerant identifier will be a part of the session. Training of technicians shall be conducted by the appointed training centers and subsequently will issue certifications to technicians who participate in the program;

The above policy initiatives, enterprise-level and technical assistance activities are summarized in the Tables below.

**Phase-out Targets and Policy Instruments
(January 2004 – December 2004)**

	2004	Key actions required	Key dates
Phase-out target (MT)	110	Signing of commitment participation	March 04
	183	Singing of commitment participation	July 04
	Actions Required		By Whom
			Key Dates
1. Commitment Letter of service shop	1. Commitment participation finalized;	SPMCU	February 04
	2. Commitment participation finalized;	SPMCU	June 04
2. Policy action	3. Development of standard inspection manual;	SPMCU	January 04
	4. Development & printing of pamphlets;	SPMCU	February 04
	5. Procurement of 20 units refrigerant identifier	SPMCU	July 04
	6. Trainings of MAC focal points & distribution of identifiers	SPMCU	March 04
3. Train the trainers	7. Set-up the program;	SPMCU	November 03
	8. Invitation and appointment potential training center;	SPMCU	January 04
	9. Procurement of basic MAC units;	SPMCU	February 04
	10. Train the trainers including distr. of basic equipment.	SPMCU	August 04
4. Technical assistance activities	11. Trainings, workshops, certification, awareness and promotion program.	SPMCU	On-going

2004 Annual Program

	<i># of enterprises targeted</i>	<i>Key Actions Required</i>	<i>Key Dates</i>
1. Elimination of CFC-12 in MAC service shops	~100	Survey and selection of participating MAC service shops	1. March 04 – Commitment participation collected 2. April 04 – Procurement of Investment 3. Oct. 04 – Completion of distribution & hands-on training of equipment to service shops
1. Elimination of CFC-12 in MAC service shops	~180	Survey and selection of participating MAC service shops	1. June 04 – Commitment participation collected 2. July 04 – Procurement of Investment 3. March 05 – Completion of distribution & hands-on training of equipment to service shops
<i>Activities</i>		<i>Actions Required</i>	<i>Key Dates</i>
1. MAC SPMCU	Set up SPMCU (completed) Ongoing monitoring and operations of SPMCU		Ongoing
2. Selection of consultant/independent verification	Selection of qualified consultant/institution to carry out independent verification of the project		Will be carried out in 1Q 2004-activities completed
4. Training	Training activities for: (a) trainer at training centers (b) Training of MAC service shops technicians		Will be carried out in: (a) 1Q 2004-activities completed (b) 2Q 2004- activities completed
5. Workshops	Workshops for: (a) potential service shops (b) National workshops for policy makers to introduce implementation of the program (c) policy makers to develop measures/regulation of MAC		Will be carried out in 1Q 2004-activities completed
6. Regulatory and supports	Funds to support costs for setting up MAC regulation through workshops/seminars and trainings for NOU and related government agencies and MAC focal points		Will support for actions taken by NOU through out the first implementation program
7. Awareness & Promotional program	(a) Public awareness for environmental and economic impact of ozone layer program thru; newspapers, seminars, electronic media etc. (b) Promo program to encourage public to have MAC system repaired by certified technicians		(a) 4Q 2003 to end of 2004 - will be executed (b) 4Q 2003 to end of 2004 – will be executed
8. Establishment of standard & technical program	(a) Selection of qualified consultants/institutions to develop inspection manual (b) Selection of qualified consultants/institutions to develop training materials & requirements, including training manual and Certification schemes under Train the trainer program		Will be carried out in 4Q 2003 to end of 2004

Annual Budget

Activity	Planned Expenditures (US \$)
Ongoing monitoring and operations of SPMCU	30,000
Technical Assistance	60,000
Workshops, Training and awareness	50,000
Recovery/recycling equipment	1,207,300
TOTAL	1,347,300

**PHASE-OUT MANAGEMENT PLAN FOR CFCs IN THE REFRIGERATION (SERVICING)
SECTOR IN INDONESIA**

**REPORT ON THE IMPLEMENTATION OF CY 2003 ANNUAL PROGRAMME AND
REQUEST FOR RELEASE OF SECOND FUNDING TRANCHE**

Prepared By

**SECTOR PLAN MANAGEMENT & COORDINATION UNIT (SPMCU),
KEMENTERIAN LINGKUNGAN HIDUP (LH)**

AND

UNDP

**PHASE-OUT MANAGEMENT PLAN FOR CFCs IN THE REFRIGERATION (SERVICING)
SECTOR IN INDONESIA**

Report on CY 2003 Implementation Programme and Request for Release of Second Tranche
(As of 15 October 2003)

1. Background

The Phase-out Management Plan for CFCs in the Refrigeration (Servicing) Sector in Indonesia was approved at the 38th Meeting of the Executive Committee of MLF, at a total funding level of US\$ 4,912,300, to be provided in five tranches, facilitating the complete phase-out of CFCs in the Refrigeration (Servicing) Sector in Indonesia by 01 January 2008.

This Phase-out Management Plan will facilitate elimination of all the remaining eligible CFC consumption in the Refrigeration (Servicing) Sector in Indonesia, except in the MAC and Chiller sub-sectors, upon completion. The Phase-out Management Plan will be implemented through five annual implementation programmes and together with the implementation of the approved ongoing projects in the Refrigeration Sector, is expected to result in the complete phase-out of CFCs in the Refrigeration Sector in Indonesia in five years. The Phase-out Management Plan will address the conversion requirements in the Refrigeration (Servicing) Sector for ensuring a timely, sustainable and cost-effective phase-out, through a combination of investment, technical support and policy/management support components. The breakdown of the approved overall funding was as below:

Investment Component:	US\$ 4,149,300 (including contingencies and technical support)
Training Component:	US\$ 573,000
Policy/Management Component:	US\$ 190,000
Total:	US\$ 4,912,300

The extract of 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 disbursement schedule and annual CFC consumption and phase-out control targets, pertaining to the Refrigeration (Servicing) Sector in Indonesia, is reproduced below:

Parameter	2002	2003	2004	2005	2006	2007	2008	Total
Annual CFC Consumption limit in the Refrigeration Sector (ODP MT)	NA	3,218	3,018	2,408	1,698	966	0	N/A
Annual CFC phase-out target in the Refrigeration (Servicing) Sector (ODP MT)	0	0	200	300	322	250	0	1,072
Annual Funding Installment (US\$)	2,196,758	1,805,987	500,000	250,000	159,555	0	0	4,912,300
Agency Support Costs* (US\$)	195,708	160,939	43,400	21,300	13,160	0		434,507

The annual implementation programme for CY 2003 was submitted to MLF in November 2002 (attached as Annex-1 to this document).

2. Preparatory Activities

- 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-phase project document covering the first tranche 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/G68 – Sector Phase-out Plan for Elimination of CFCs in the Refrigeration (Manufacturing) Sector in Indonesia would be also followed for implementation of the IND/03/G61 – Phase-out Management Plan for CFCs in the Refrigeration (Servicing) Sector in Indonesia
- The first phase project document was signed by Government in August 2003.
- The UNDP first-phase project document was fully signed for all parties in August 2003.

3. Investment Component

3.1 Recovery/Recycling Programme

Enterprise Participation

The recovery/recycling programme targeted initiating participation of about 385 servicing establishments during 2003. About 170 larger-sized service establishments were identified by SPMCU in collaboration with *Asosiasi Bengkel Elektronik Indonesia* (Indonesia Electronic Service Association). The first list of about 170 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 participation in the recovery/recycling programme, through the provision of demonstration recovery/recycling equipment.

Procurement

- UNDP notified 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, UNDP's Inter-Agency Procurement Services Office (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 are expected to be completed in November 2003.

Upon completion of all activities in the first batch of servicing and training establishments (targeted in CY 2004 and 2005), the CFC reduction in servicing that would be facilitated, would contribute about 100 MT to the CY 2004 and CY 2005 annual CFC phase-out targets. The funds committed for procurement of equipment for the first batch of participating establishments, is expected to amount to about US\$ 1.5 million.

The second batch of participating service establishment, estimated at about 250 medium-sized servicing establishments and about 500 small-sized establishments, is expected to be finalized by end-2003. The completion of all activities in this second batch of participating servicing establishments is expected to result in an additional 120 MT in reduction of CFC usage in servicing during 2004 and 2005, thus contributing to CFC reduction targets for 2004 and 2005.

3.2 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 by mid-2004, 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 MT during 2004.

4. Training Component

The Master Trainers programme under this component has been initiated. About 150 potential master trainers have been identified and the activities leading to the training of these master trainers are expected to be completed in November 2003. The delivery of this capacity-building training to the Master Trainers, would in turn facilitate the initiation of the subsequent technician training program, leading to the introduction of good practices and efficiencies in servicing, is expected to lead to the reduction of CFC usage in servicing by about 20 MT during 2004.

5. Non-Investment (Policy and Management Support) Component

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

The SPMCU including the national programme manager and staff, set up under the Indonesia Refrigeration (Mfg) Sector Plan, has been also assigned the task of supporting the implementation activities of the Refrigeration (Servicing) Sector Plan and the SPMCU is fully functional.

5.2 Enterprise Participation

- The operational mechanism for enterprise participation in the Sector Phase-out Plan was finalized by KLH in consultation with UNDP.
- The verification of baseline at the first batch of participating servicing and training establishment was concluded in September 2003.
- The verification of enterprises in future batches of participation/procurement has been initiated and would be an ongoing exercise.

5.3 Other Policy, Regulatory and Awareness Actions

- KLH continued the implementation and enforcement of the Government of Indonesia regulations related to ODS use.
- Two workshops were held in 2003. The first workshop, held in March 2003, targeted prospective participating servicing establishments under the Plan, for introducing the Plan and for briefing them on the roles, responsibilities, mechanism, procedures, terms and commitments for participation. About 50 servicing establishments attended the workshop. The workshop also 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 30 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. The second workshop held in October 2003, was intended to operationalize the participation of service establishments and training establishments and aimed at finalizing the participation agreements and also at identification of service establishments for participating in future batches.
- Interaction meetings were held with major distributors and traders of CFCs and with representatives of industry associations related to refrigeration 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.

5. CFC Phase-out and Results

There was no CFC phase-out target under the Indonesia Refrigeration (Servicing) Sector Phase-out Management Plan for 2003. The completion of activities in recovery/recycling, retrofitting/replacement demonstration and training initiated in 2003 would lead to the reduction of

CFC usage in servicing by at least 200 MT in 2004, which is the CFC phase-out target for that year under this plan.

6. 2004 Annual Implementation Programme

The 2004 Annual Implementation Programme is submitted for the review and approval of the Executive Committee. The 2004 Annual Implementation Programme will phase out about 200 ODP MT of CFC upon completion in CY 2004.

As per disbursement schedule in Table 1 of the Agreement between the MLF and the Government of Indonesia, the Executive Committee is requested to approve the 2004 Annual Implementation Programme and the release of the 2003 funding level of \$1,805,987 and the corresponding support fees of \$160,939.

INDONESIA
Refrigeration (Servicing) Sector Phase-out Plan

Annual Implementation Program (Tranche 1 & 2) for CY 2002 and CY 2003

1. Data

Country	Indonesia
Year of plan	2002 and 2003
Number of years completed	0
Number of years remaining under the plan	5
Target ODS consumption of the preceding year (ODP MT)	1,072
Target ODS consumption of the year of plan (ODP MT)	1,072
Level of funding requested (US\$)	2,196,758 (1,002,745 + 1,194,013)
Lead implementing agency	UNDP
Co-operating agency (ies)	None

2. Targets

Target:	Procurement actions, training actions, technical assistance and policy/management support activities			
Indicators		Preceding Year	Year of Plan	Reduction
Supply of ODS (ODP MT)	Import	5,585	5,585	0
	Production	0	0	0
	Total (1)	5,585	5,585	0
Demand of ODS (ODP MT)	Manufacturing	N/A	N/A	N/A
	Servicing	1,072	1,072	0
	Stock piling	N/A	N/A	N/A
	Total (2)	1,072	1,072	0

3. Industry Actions

3.1 Sector-level Actions

Sector	Consumption Preceding Year (1)	Consumption Year of Plan (2)	Reduction within Year of Plan (1) - (2)	No. of Projects Complete	Number of Servicing Related Activities	ODS Phase-Out (ODP MT)
Refrigeration (Servicing) Sector	1,072	1,072	0	0	2	0

3.2 Recipient-level Actions

Out of the total of 885 service establishments estimated to participate in the recovery & recycling program (as mentioned in the approved project proposal) it is planned that about 385 service establishments (about 44% of the total) will commence participation during 2002-2003. In addition, out of the total of 100 training establishments estimated to be recipients of the recovery/recycling demonstration program, it is planned that about 50 training establishments (about 50% of the total) would commence participation during 2002-2003.

It is proposed to initiate procurement of recovery/recycling and charging/evacuation equipment for these servicing and training establishments (amounting to 435 sets or nearly 50% of the total). The estimated cost is about 50% of the budget in the approved project proposal or about US\$ 1.62 million. It is foreseen that the duration of implementation of this program for these establishments would be set in such a way as to ensure that their completion would contribute to about 70% of the verifiable annual performance target for CY 2004 (200 MT) leading to reductions in CFC consumption in servicing at these establishments of about 140 MT upon completion.

About 70 representative end-users would be identified for the retrofitting demonstration program. The end-users would be so selected as to be representative of various end-use applications. Agreements with the selected end-users are expected to be in place, for demonstrating the retrofitting technologies within a predefined time frame. This action is expected to accelerate retrofitting/replacement decisions for CFC-based refrigeration equipment by the user industry, leading to a reduction of about 40 MT by 2004.

4. Technical Assistance and Training

Activity	Description	
Workshops for government policymakers and decision-makers	Objective	Ensuring high-level commitment for meeting Plan obligations by government policy-makers and decision-makers
	Target group	Responsible officials from associated line ministries. It is proposed to organize two one-day workshops, each for up to 50 persons in late 2002 and mid-2003.
	Impact	Reinforcing commitment to plan obligations from government and ensuring that the various policy and regulatory actions are taken in accordance with the Plan.
Workshops for Servicing and Training establishments	Objective	Initiating participation and phase-out activities and commitments from service establishments. Initiating the appropriate curricula in the training establishments for disseminating technologies and practices in refrigeration servicing to ensure sustainable reductions in CFC usage.
	Target group	Prospective recipient service establishments and training establishments. It is proposed to organize two one-day workshops, each for about 70 major servicing establishments and about 50 training establishments in the first and second quarters of 2003
	Impact	Participation agreements with servicing establishments in place for the recovery/recycling program. Appropriate curricula in place in the training establishments
Technical Assistance for procurement of equipment	Objective	Initiate procurement procedures for equipment to be provided to recipient servicing establishments for recovery/recycling and training establishments for demonstration
	Target group	Service establishments
	Impact	Finalization of specifications and vendor shortlists, international competitive bidding and issuance of purchase orders/contracts
Technical Assistance for retrofitting demonstration	Objective	Demonstration of retrofitting technologies
	Target group	About 70 end-users would be identified and selected for participation in the program.
	Impact	Facilitating early retrofitting/replacement decisions for CFC-based equipment by end-users, thereby reducing dependence on CFCs for servicing and leading to reductions of about 40 MT in servicing by 2004
Training	Objective	Capacity-building for training of technicians
	Target group	About 150 master trainers will be selected and provided with training and capacity-building inputs through one two-day workshop
	Impact	Delivery of training inputs to master trainers, in preparation for the subsequent technician training program, in order to introduce good practices and awareness thereby facilitating initial emission reductions amounting to about 20 MT during servicing by 2004.

5. Government Action

Policy/Activity Planned	Schedule of Implementation
Type of Policy Control on ODS Import	Continuing enforcement of existing controls
Awareness	See below
Others	See below

Activities for 2002:

- a) Establishment of the Sector Plan Management and Coordination Unit (SPMCU) for facilitating the management of the Sector Phase-out Plan:
 - Determination of personnel and logistics requirements
 - Finalizing terms of reference for personnel
 - Initiation of recruitment of personnel
- b) Formulation of detailed terms of reference and work plans for various activities under the Policy & Management Support component.
- c) Establishment of an operational mechanism for Plan implementation and for participation by servicing and training establishments in the Plan and for obtaining phase-out commitments.
- d) One workshop for institutional and government stakeholders/decision-makers.

Activities for 2003:

- a) Completing recruitment and allocation of coordinating personnel within the ozone unit for plan management
- b) One workshop for institutional and government stakeholders/decision-makers.
- c) Organization of two workshops for servicing and training establishments.
- d) Reaching agreements with the selected servicing establishments for participation in the recovery and recycling program and with the training establishments for incorporating appropriate provisions in their curricula to ensure sustainable dissemination of servicing technologies and practices.
- e) Selection of about 150 master trainers and organization of one workshop for master trainers.
- f) Preparation of Annual Implementation Program

It is expected that the Government of Indonesia may set the time table of the activities mentioned above in a manner that they consider will best assist the industry and ensure the Government's compliance with the performance agreement.

6. Annual Budget

Activity	Planned Expenditures (US \$)
Establishment of, recruitment of staff for and operation of Sector Plan Management and Coordination unit (SPMCU)	40,000
Technical Assistance	100,000
Workshops and awareness	25,000
Training	50,000
Retrofitting demonstration equipment	210,000
Recovery/recycling equipment	1,611,000
Contingencies	161,069
TOTAL	2,196,758

7. Administrative Fees

The administrative fees will be utilized by UNDP throughout the implementation of this tranche.

**PHASE-OUT MANAGEMENT PLAN FOR CFCs IN THE REFRIGERATION (SERVICING) SECTOR
IN INDONESIA**

Annual Implementation Program (Tranche 2) for CY 2004 and Request for Release of Second Tranche

1. Data

Country	Indonesia
Year of plan	2004
Number of years completed	1
Number of years remaining under the plan	4
Target ODS consumption of the preceding year (ODP MT)	1,072
Target ODS consumption of the year of plan (ODP MT)	872
Level of funding requested (US\$)	1,805,987
Lead implementing agency	UNDP
Co-operating agency (ies)	World Bank

2. Targets

Target:	Procurement actions, training actions, technical assistance and policy/management support activities			
Indicators				
		Preceding Year	Year of Plan	Reduction
Supply of ODS (ODP MT)	Import	5,585	5,585	0
	Production	0	0	0
	Total (1)	5,585	5,585	0
Demand of ODS (ODP MT)	Manufacturing	N/A	N/A	N/A
	Servicing	1,072	1,072	0
	Stock piling	N/A	N/A	N/A
	Total (2)	1,072	872	200

3. Industry Actions

3.1 Sector-level Actions

Sector	Consumption Preceding Year (1)	Consumption Year of Plan (2)	Reduction within Year of Plan (1) - (2)	No. of Projects Complete	Number of Servicing Related Activities	ODS Phase-Out (ODP MT)
Refrigeration (Servicing) Sector	1,072	872	200	0	3	200

3.2 Recipient-level Actions

Out of the total of 885 service establishments estimated to participate in the recovery & recycling program (as mentioned in the approved project proposal) it is planned that enterprise-level activities at about 150 large-sized service establishments, which commenced participation during 2002-2003, would be completed, through the provision of recovery/recycling equipment.

In addition, the activities at 134 training establishments who are recipients of the recovery/recycling demonstration program and had commenced participation during 2002-2003 would be completed.

It is planned to initiate/complete procurement of recovery/recycling and/or charging/evacuation equipment for the 250 medium-sized service establishments and 500 small-sized service establishments, constituting the second batch of participating service establishments in the recovery/recycling program. The estimated cost of procuring this equipment would be about US\$ 1.5 million.

It is foreseen that the implementation of the recovery/recycling program for these establishments would be set in such a way as to ensure that the completion of activities would lead to a reduction of 140 MT in CFC usage in servicing, which is 70% of the annual phase-out target for CY 2004 (200 MT). An additional about 75 MT would be reduced by 2005, thus contributing to the phase-out target for 2005.

It is planned that the activities at about 70 representative end-users, which were identified for the retrofitting/replacement demonstration program would be completed. This action is expected to accelerate retrofitting/replacement decisions for CFC-based refrigeration equipment by the user industry, leading to a reduction of CFC usage of about 40 MT during 2004. An additional reduction of 80 MT is expected to take place by 2005, thus contributing to the phase-out target for 2005.

Thus, the total reduction in CFC usage in servicing, resulting from completion of enterprise-level activities as described above, would be about 180 MT during 2004 and about 155 MT during 2005.

4. Technical Assistance and Training

Activity	Description	
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 two one-day workshops, each for about 250 servicing establishments in the first and third quarters of 2004
	Impact	Participation agreements with servicing establishments in place for the second and subsequent batches of the recovery/recycling program.
Technical Assistance for procurement of equipment	Objective	Initiate procurement procedures for equipment to be provided to the second batch of recipient servicing establishments for recovery/recycling
	Target group	Service establishments (second 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 70 end-users identified and selected for participation in the program during 2003.
	Impact	Facilitating early retrofitting/replacement decisions for CFC-based equipment by end-users, thereby reducing dependence on CFCs for servicing and leading to reductions of about 40 MT in servicing by 2004
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 initial emission reductions amounting to about 20 MT during servicing by 2004.

The impact of training activities would be improved practices and efficiencies in refrigeration equipment servicing, leading to emission reductions during servicing amounting to about 20 MT during 2004.

5. Government Action

Policy/Activity Planned	Schedule of Implementation
Type of Policy Control on ODS Import	Continuing enforcement of existing controls
Awareness	See below
Others	See below

Activities for 2004:

- a) One workshop for institutional and government stakeholders/decision-makers.
- b) Organization of two workshops for selected servicing establishments and industry stakeholders.
- c) Continuation of agreements with selected servicing establishments for participation in the recovery and recycling program.
- d) Initiation, management and monitoring of the technician training programme
- e) Preparation of Annual Implementation Program

It is expected that the Government of Indonesia may set the time table of the activities mentioned above in a manner that they consider will best assist the industry and ensure the Government's compliance with the performance agreement.

6. Annual Budget

Activity	Planned Expenditures (US \$)
Ongoing monitoring and operations of SPMCU	40,000
Technical Assistance	90,000
Workshops and awareness	20,000
Training	100,000
Recovery/recycling equipment	1,450,000
Contingencies	105,987
TOTAL	1,805,987

7. Administrative Fees

The administrative fees will be utilized by UNDP throughout the implementation of this tranche.