

- (2) regulatory/legislative aspects
- (3) capacity building initiatives.

### 5.6.3 Methodology

It is important to develop access to the servicing sector on the basis of existing routes of communication and contact within the sector.

Information updates pertaining to servicing per se appear to happen through networking within the industry (largely formal enterprises) and through information flow from the dealers of compressors, other spare parts, refrigerant and tools, on whom the enterprises depend for material supply. It is likely that the formal sector workshops depend on the same set of dealers for their material needs. Presently, information flow may happen either in the form of brochures, or through interactive seminars, organized by the appliance and compressor manufacturers also.

On the one hand, OEMs can play a major role in rapidly reaching to their service centres and their authorized service providers. They can also help reach out to the suppliers and dealers of their equipment to the MSEs. These suppliers and dealers will play a very important role in accessing the enterprises of the service sector. One of the most important tasks of the strategy for reaching out to the servicing sector is to locate the dealers across the country. Information on their presence in different parts of the country can be accessed from some important sources.

Associations such as the ISHRAE, ASHRAE (local chapter), NIRATA and the AIACRA, will also play a useful role in accessing the dealers, suppliers and, to a smaller extent, the enterprises directly. Out of cultural reasons there has been only limited outreach of associations to smaller enterprises in India, and it is seen beyond the capabilities of this sector plan to change this. Thus, associations as direct access road to enterprises are by and large no option for the sector plan.

The network of dealers is a very important stakeholder in the phase-out process because it is the last part of the supply chain, playing a very important role in the availability of refrigerant and spare parts for ODS alternatives. In order to minimize or exclude unwanted incentives for conversion of non-CFC refrigeration equipment back to CFC, the availability of alternative refrigerant(s), suitable refrigeration oils and spare parts is crucial. Thus, the dealers have the two roles of providing early in the implementation awareness access to the service sector enterprises plus ensuring the logistics for supply of alternatives. In order to sensitize the dealers, ensure their support for awareness measures and raise their awareness for supply needs of alternatives, a number of workshops for the dealers are planned.

The State Governments through their Departments of Environment and the Departments of Industry, the State Pollution Control Boards and the district offices are playing an important role in the implementation of the strategy, as explained in detail in chapters 7 and 8. In order to fulfill their role in identifying potential beneficiaries, participate in monitoring and coordinate the activities under this sector plan with other, potentially correlated measures in the States, the States have to receive constantly substantive, detailed and specific information about concept and progress of the sector plan and their changing role in it.

#### 5.6.4 Activities

Based on above considerations, a number of activities are foreseen under the service sector plan. These are summarized in table 13.

**Table 13:** Awareness activities foreseen under the sector plan

Activity	Explanation	Distribution	Starting	Frequency
<b>Provide 4-Colour Chart at Service Sector enterprise as continuous reminder</b>	Production of 20'000 4-colour chart, 12 languages	Through dealers	2003	Annually for 6 years
<b>Awareness and sensitizing articles in newspapers to reach enterprises</b>	Commissioning articles in major newspapers	3 per year direct to newspapers	2003	Annually for 6 years
<b>Establishing dealer network for information dissemination, support of equipment and refrigerant supply<sup>2</sup></b>	20 Networking WS across the country for dealers - opening access road	Direct	2004	Semi-annually for 6 years
<b>Information brochure from Sector Plan for States on planned activities in Phaseout, lessons learned, plans for the next years, ...</b>	Emerging legislation announcements	Direct	2004	Annually for 6 years
<b>Workshops with the responsible officers from the States and the Union Government to facilitate exchange of information and experience concerning monitoring and coordination activities, coordination possibilities with other Govt or state government agencies, local legislation and other activities</b>	Awareness workshops for regions/states / information exchange	Direct	2004	Annually for 6 years

<sup>2</sup> The dealer network is meant to open an early channel to the service sector starting immediately as well as reach beyond the training scheme under this sector plan, which is targeted only at a part of the sector. Thus, a second access road to the service sector through the dealer network is being developed.

### **5.6.5 Complementarity of the present initiative with the production sector strategy and the awareness campaign of the Ozone Cell.**

One of the most recent initiatives of the Ozone Cell, Ministry of Environment and Forests, Govt. of India is the development of an intensive awareness campaign on aspects of ODS phase out, focusing on the availability of only non-CFC - based products from 1.1.2003.

This campaign which is in its final stages of planning may emphatically provide information support for the public, potentially including the MSEs. It is also likely that the campaign may awaken the general consumer to the potential participatory role she / he can play in sensitizing the servicing technician, to adopt measures that prevent wanton or inadvertent release of the ODS from older equipment, and ensure that servicing is done with the correct refrigerant in the case of equipment with the ODS-substitute.

The present awareness strategy entirely complements the production sector phase out strategy by attempting to sensitize the servicing sector and end-users to appropriately respond to the phase out.

It is equally important to recognize that the Micro and Small Enterprises (MSE) in particular need greater introductory technical information, in the process of getting sensitized to the need to rise to the opportunities of training that they need to access. Accordingly the need for an intensive technical information based awareness campaign for the servicing sector is justified. It is equally important to ensure a long-term awareness campaign, that covers the whole period of phase out for sustained information support.

## 6 INCREMENTAL COSTS

An overview over the incremental costs claimed within this project has been established; detailed sub-budgets for the Service Sector component and the Policy and Customs component showing the full incremental costs have been established. Based on the limited remaining eligible tons and the total incremental costs, the eligible incremental costs of the project are 12,656,670 \$US.

The budget overview provides the following details:

<b>Customs and policy training</b>	\$493.120
<b>Awareness</b>	\$773.150
<b>Training of existing technicians</b>	
Train-the-trainers and training activities	\$2.367.730
Training equipment	\$433.020
<b>Upgrade training of new technicians</b>	
Train-the-trainers	\$44.390
Training equipment	\$850.160
<b>Technician equipment supply</b>	\$5.167.630
<b>Conversion of existing equipment</b>	\$723.800
<b>Monitoring and ongoing management</b>	\$653.060
<b>Contingency</b>	\$1.150.610
<b>Total</b>	<b>\$12.656.670</b>

As already pointed out in chapter 5, service enterprises are expected to contribute to the capital costs of their skill and equipment upgrade. There are the following reasons to request a certain contribution:

- Maximum support for enterprises within funding limits
- Covering the non-eligible part of the equipment supply
- Increasing sustainability by requiring counterpart commitment, thus increasing the likelihood of appropriate utilization of equipment

It is planned that contributions of beneficiaries in local currency through training fees and equipment co-funding will be used for further measures under the Sector Plan, in particular further training and

equipment, thus operating a revolving fund under the Sector Plan. Depending on the circumstances during implementation, the Government of India reserves the right to utilize the income generated to support enterprises also through credit/loan schemes.

The Sector Plan will receive additional quantifiable support through task sharing with the existing Indo-Swiss HIDECOR project. This project, dealing with refrigeration technician skill development, has already been established and will carry out certain implementation related tasks without MLF funding. These contributions amount to a value of more than 1.250 million USD.

## **7 MANAGEMENT**

The CFC-12 refrigeration sector phase-out plan will be implemented under the direct supervision of the Director Ozone, Ozone Cell, Ministry of Environment and Forests, Government of India.

### **7.1 Implementing / Bilateral Agencies involved**

The project will be implemented as a collaborative effort of four Implementing / Bilateral Agencies. All of those have their specific experiences and areas of excellence to bring to the process. All agencies have close links to India, to the activities under this strategy and have made considerable experience to base their efforts on.

#### **7.1.1 GTZ**

GTZ will be the lead agency in the implementation of the project. The work within this project will be financed from the bilateral quota of Germanies contribution to the MLF, which GTZ is implementing. The expertise of GTZ lies in project management, industry cooperation, training and technical advice. GTZ has a local office in Delhi and is well connected through developing aid projects with Ministries and institutions within Delhi, among them the Directorate General for Education and Training, DGET under the Ministry of Labour, the Pollution Control Boards under the Ministry of Environment and Forests, and the Indian Railways. In addition, GTZ representatives have been involved in intensive networking in the Indian refrigeration sector since 1995 through active participation in the ECOFRIG project, an Indo-Swiss-German collaborative project focused at technology transfer in refrigeration. All of these activities will optimize the interaction with important Stakeholders during the implementation of the project.

GTZ is actively involved in several ODS phase-out projects. Within its division for Environmental Management, the Programme Proklima assists countries in meeting their Montreal Protocol obligations. Implementation experience includes developing and implementing RMPs including training, recovery & recycling and other related measures for countries in Southern & Eastern Africa. For Brazil, GTZ has just participated in a joint UNDP/GTZ effort in preparation of a strategy for the refrigeration sector phase-out, which has been submitted to the 37<sup>th</sup> ExCom for consideration. Further implementation in the refrigeration sector includes manufacturer conversions in China and the Philippines.

GTZ will have the responsibilities for overall coordination between the Implementing Agencies.

#### **7.1.2 Switzerland**

For Switzerland, the consulting firms INFRAS and Swisscontact were mandated as implementers on behalf of their home country.

INFRAS Consulting Group was entrusted the responsibility of project management for the ECOFRIG project. This project has aimed at establishment of a level playing field between synthetic fluids (e.g. HFCs and HCFCs) and the fully environment-friendly natural fluids such as hydrocarbons in the Indian domestic and commercial refrigeration sector. The project supported the phase-out of CFCs

from production and servicing of domestic and small commercial refrigeration appliances and an assessment of the availability of hydrocarbon refrigerants in the Indian market. The ECOFRIG project provided the platform and the industry contacts to launch the HIDECOR initiative in 1998. INFRAS subsequently also was responsible for project management of HIDECOR pilot phase (1998 to 2000). This project is supported by the Swiss Government with a view to enable Micro and Small Enterprises (MSE) in the manufacturing & servicing sector and relevant training institutions to cope with the new demand (technologies, skills and market) resulting from CFC phase out process under the Montreal Protocol. In March 2002 the ECOFRIG project organised a Conference through IIT Delhi on technology transfer and the experiences gained in public private partnerships for skill development. The event offered opportunities to present the training approaches proposed under this strategy to a wider group of stakeholders. INFRAS acted as a facilitator for this conference as well as lead agency for this training chapter coordinating contributions from CIMI, UNEP, GTZ and Indian experts.

The project management role for the main phase of HIDECOR project (2001-2004) has been entrusted to Swisscontact (alongwith IT Power India). Swisscontact is an NGO, active in the fields of ODS phase-out, vocational education and training, and small & medium enterprise promotion. It has successfully completed an ODS phase-out project in Indonesia, key components of which include information workshops, technician training, and provision of technical expertise. It is at present undertaking similar projects in the Philippines and Sri Lanka.

#### **7.1.3 UNDP**

UNDP has carried out a large number of recovery and recycling and RMP projects world wide; among the implementing agencies it is the one with the highest turnover in that field. The capacities of UNDP as a equipment cum service provider have been proven on this basis. UNDP, responsible for R&R and providing also other equipment support, is a well suited partner with the necessary resources available within India to handle the described procurement tasks under the sector plan in a professional, experienced manner.

#### **7.1.4 UNEP**

UNEP has acquired considerable experience and expertise in organizing and implementing training courses. It has also developed numerous training tools, including manuals, practical guidelines and modules, together with a comprehensive training strategy to guide all training activities. It has an extensive catalogue of publications and material for awareness raising and information exchange which can be used to enhance training. Its training programs have been effective in establishing and strengthening a network of regional partner institutions and national country teams. The services provided by UNEP go beyond the provision of training alone; it also caters to diverse needs of countries such as training for customs authorities, policy development, institutional strengthening, regional networking, information sharing and assistance with technology transfer.

One of the strengths of the OzonAction Programme lies in its information exchange services. By maintaining, developing and disseminating current and relevant awareness raising material, training and technical documents, decision-makers are assisted in making informed decisions on policies and investments. One of the core capacities of UNEP in the Montreal Protocol has been acting as information clearinghouse and promoting awareness.

With this experience, UNEP is ideally suited to carry out the awareness part of this sector plan, especially because awareness for the general public in India is also supported by UNEP, allowing an optimum interlinkage between the two.

#### **7.1.5 Specific agreements among the Implementing / Bilateral Agencies**

The role of each implementing or bilateral agency is to use its specific funding of the implementation according to the annual task allocations proposed by the Technical Committee (for details of implementation structure see 7.2 below). It will be the responsibility of each agency to provide for their respective field of implementation a proposal of activities for the next year, including budget and proposed modality of implementation. The lead agency coordinates this process, is responsible for avoiding doubling of efforts and provides the Technical Committee with a consolidated list of planned activities and an respective budget plan. This budget plan, once recommended for approval by the Technical Committee and approved by the Management Committee, forms the basis for the annual funding request to the MLF.

MoEF on behalf of the Government of India jointly with the bilateral and the implementing agencies decided to follow a very country-driven approach in the implementation management, rather building capacities in the country than using external ones provided the implementation remains cost effective. Consequently, all agencies declared to procure the majority of equipment and services in India to the maximum extent possible. Using this as a basis, it was mutually agreed to separate the tasks from the funding levels, i.e. even if the focus of the project changes, the funding distribution remains as originally agreed.

### **7.2 Implementation structure**

The Ministry of Environment & Forests, Government of India is responsible for implementation of the National Refrigeration and Air-Conditioning Service Sector Plan in India. The Ministry has decided that in general all new ODS phaseout projects/activities are to be operated by a Project Management Unit for Phaseout of Ozone Depleting Substances. All operational activities of the Project Management Unit are supervised by the Management Committee chaired by the Vice-President/Joint Secretary, MOEF. The following description of the implementation structure is only indicative and MOEF shall have the flexibility to change/modify the implementation methodology at the time of implementation.

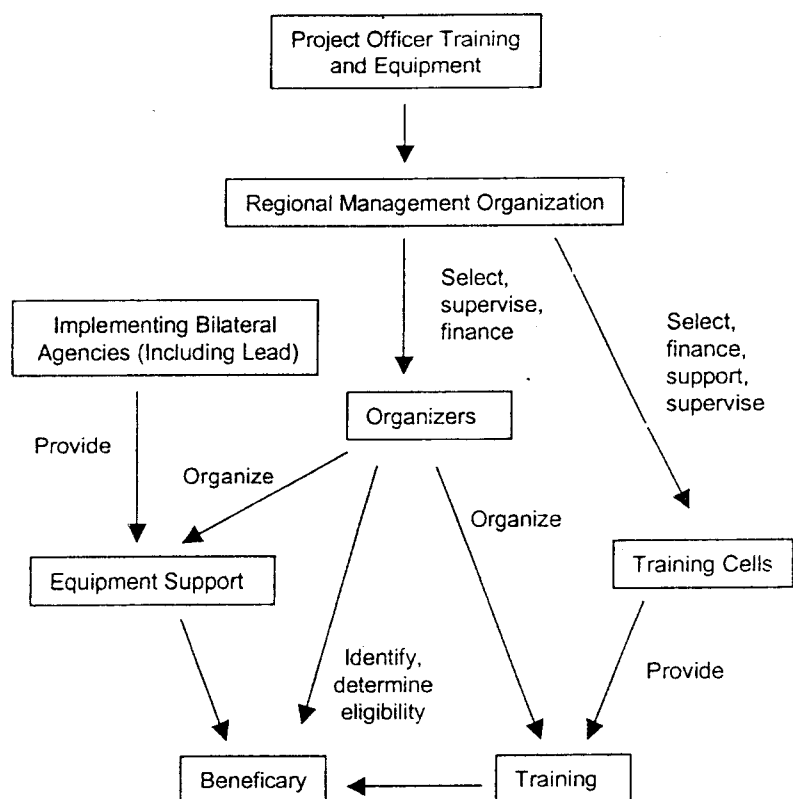
A separate Technical Committee under the Chairmanship of Vice-President of the PMU will be setup for the Service Sector Plan. This Committee will consist of Director-Ozone Cell, representative of Implementing/Bilateral Agencies, experts and stakeholders. The Technical Committee meets twice a year in September and March. The meeting in September will prepare the annual work plan including the funding requirement for the next calendar year based on the results and decisions of this meeting. The March meeting will review the progress made in the previous year. The annual programme with the approval of the Governing Body of the Project Management Unit will be submitted to the March meeting of the Executive Committee of the Montreal Protocol.

The Project Management Group for implementation of this project will consist of a Project Coordinator, two Project Officers and two support staff. The Project Coordinator will supervise the

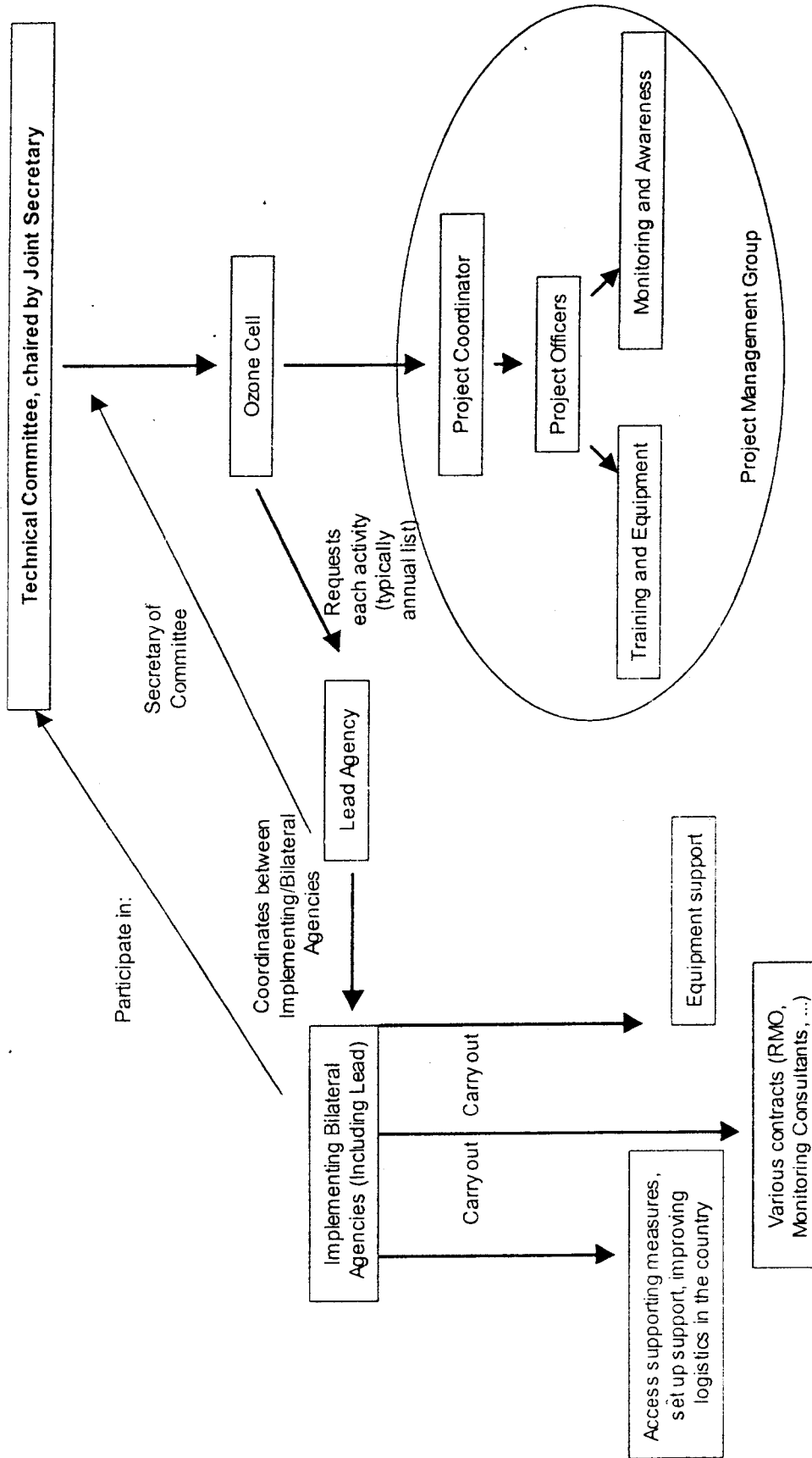


activities undertaken for implementation of this project. One project officer will be responsible for training and procurement of equipment and other one will be responsible for monitoring and awareness. Support staff will assist the Project Coordinator as well as the two Project Officers.

The Project Coordinator will coordinate with Implementing Agencies, Technical Committee and report to the Secretary of the Management Committee of PMU. An overview of the Institutional Framework is provided in Graph 2 and 3. The funding for the Project Management Staff will come from the Implementing/Lead Agency to the Project Management Unit for ODS phaseout. The Project Coordinator and other staff members will work under the PMU.



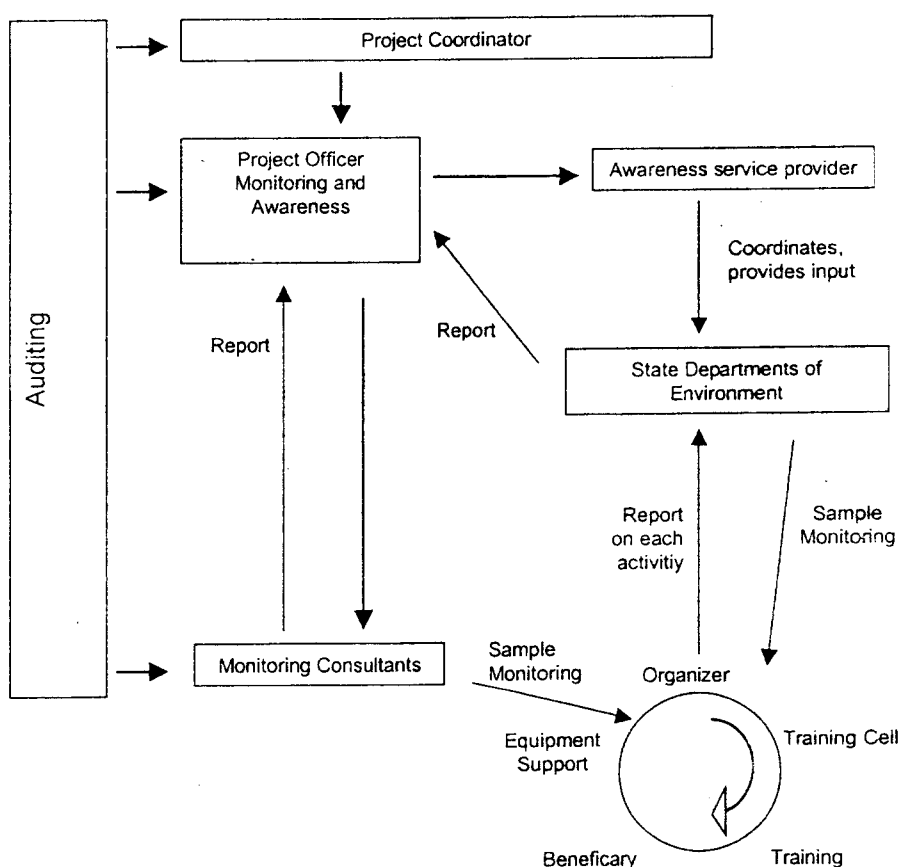
**Graph 2:** Outreach structure to the beneficiary



Graph 3: General management structure for Sector Plan

## 8 MONITORING AND EVALUATION

The monitoring of activities and results under this sector plan is carried out by an independent branch of the overall set-up. While the directly phase-out related measures, in particular providing training and equipment to the service sector, is carried out by an implementation structure created or contracted largely for this purpose, the backbone of the monitoring is the State administration. Each Organizer (see chapter 5.3.7) reports the enterprises identified in the off-season (Winter) to the Departments of Environment in the States, who forward that information to the Monitoring and Awareness Officer and perform at the same time random checks. In addition, the Monitoring and Awareness Officer has one or more monitoring consultants reporting to him, which are hired once a year by the lead agency with the task to perform additional checks. The setup is depicted in graph 4.



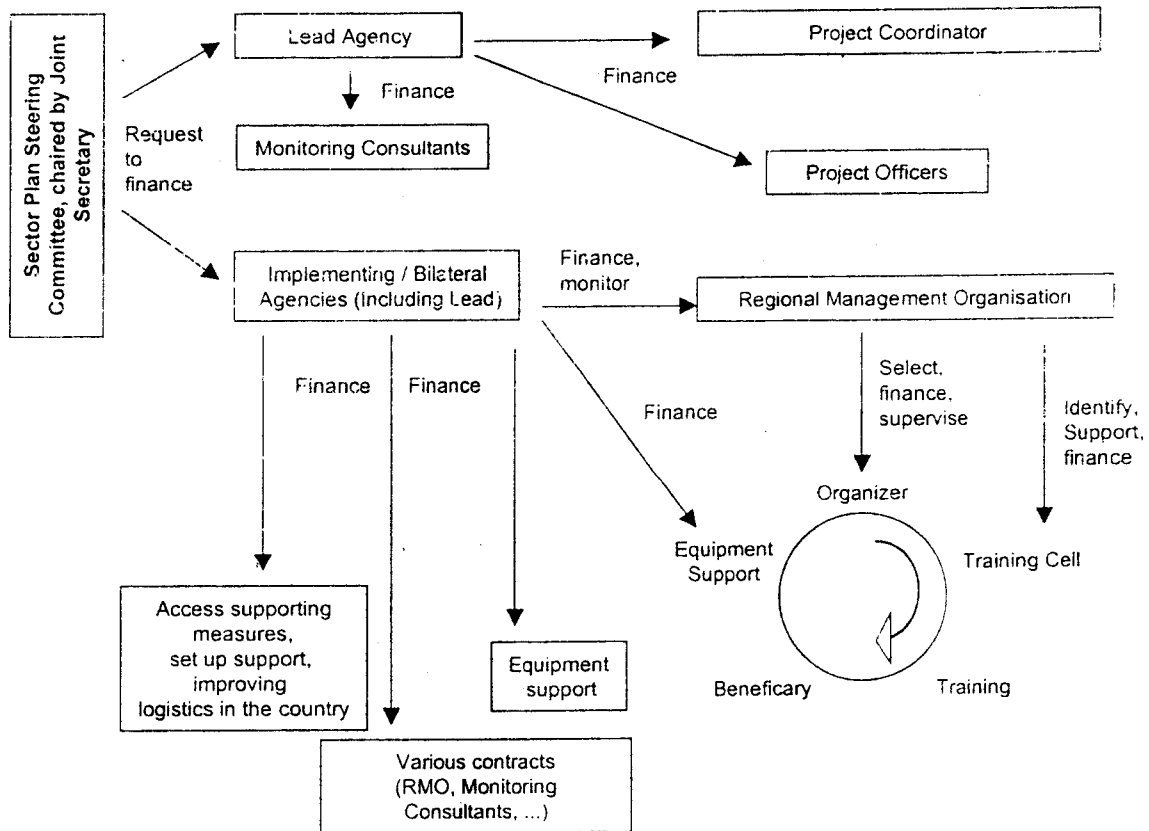
**Graph 4:** Monitoring and awareness

The monitoring set-up is independent of the implementation set-up and combined only with awareness measures, since for these measures also the State Departments of Environment are deeply involved. While these departments are meant to provide monitoring on a continuous basis and provide input through the Project Officer Monitoring and Awareness, the Monitoring Consultants will undertake specific and targeted monitoring missions. An external auditor will audit the work

undertaken by the monitoring consultants, the Project Officer (including the reports delivered by the States) and the Project Coordinator.

The monitoring data will consist of enterprises identified and proven to be eligible by the Organizers, which represents essentially the business plan for the next off season period. The monitoring data will also consist of trainings and equipment support delivered. Further, the spot checks will provide good indications of how much refrigerant the enterprises consume compared to before the provision of training and equipment. This data will flow into a spread sheet model of the expected reductions achieved through these measures. The resulting information will be correlated with monitoring information from the production sector plan in order to verify the numbers and show the effect of the measures. It should be kept in mind that this sector plan is only focusing on minimizing the impacts, i.e. it is reacting to the change in supply. The sector plan is only to a small extent facilitating actual demand reductions (“consumption phase-out”) ahead of the supply reduction.

The fund flow is completely channeled through the implementing / bilateral agencies. A schematic is shown in graph 5.



**Graph 5:** Fund flow in Sector Plan

The funding is completely implemented by implementing / bilateral agencies upon request from the Steering Committee. This process ensures maximum involvement of the Government of India, at the

same time ensuring that the framework under which Implementing/Bilateral Agencies are working is taken into consideration.

Within their given tasks, the Implementing/Bilateral Agencies are responsible for the implementation according to the request from the Steering Committee. These requests will typically include in several cases already the terms of reference and other detailed information about the services or equipment to be procured and/or provided. The according information, which is based on the specific expertise of the different agencies, will be provided before Steering Committee meetings to allow for informed decision making.

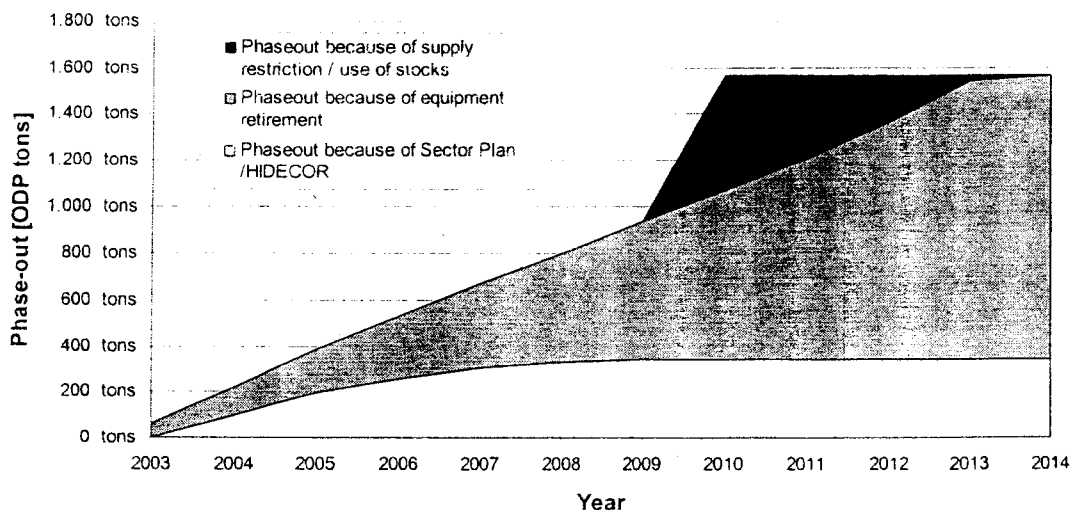
## 9 PERFORMANCE TARGETS AND DISBURSEMENT SCHEDULE

The monitoring is planned to be performed annually in time for the July meeting of the Executive Committee. The performance of the previous year will be determined and on this basis the tranche for implementation from August until July of the following year will be requested. This timing has been selected to allow careful scrutinizing after the production sector performance audit.

The Sector Plan has been developed on the basis of the existing Ozone Rules 2000, using them and the Indian phase-out commitments as a basis to determine the reductions in CFC-12 supply feasible. The Sector Plan aims at minimizing the impact of the supply reductions and subsequent phase-out. Consequently, the reductions achieved through the plan itself are often small, especially in the early years when abundant supply of CFCs is available. In addition, because of the higher frequency of repairs of old refrigerators compared to new ones and the high importance of refrigerators for India's CFC-12 consumption in the service, the CFC consumption in the service sector is likely to increase for some years before again starting to decrease.

Significant portions of the CFC phase-out are linked with refrigeration equipment reaching the end of its useful life, causing no more CFC consumption, as well as with retrofitting of existing equipment once there is insufficient CFC available. Both lead to phase-out only after the project has almost or completely finished, i.e. in the final years before the total phase-out of CFCs. Contrary to these components of the phase-out, best practice is directly implemented and is likely to provide measurable results in a relatively short time span.

Table 14 and graph 6 show overviews over the different measures leading to the total phase-out in India. The same data has been used for Graph 6 and Table 14. Disbursement schedule and a detailed list of annual targets are given in the draft agreement.



**Graph 6:** Share of the different measures in the phaseout in the service sector

Table 14 provides an overview over the CFC-12 consumption in India in the years until 2010. Based on the expected CFC-12 consumption figures until 2010, performance targets, performance indicators and a disbursement schedule have been developed. Those are displayed in Table 17. The performance indicators are calculated by using the CFC-12 consumption (reported in the annual reporting under the production sector plan and in the annual reporting to the Montreal Protocol Secretariat) minus the use for MDI. MDI uses are presently 120 ODP tons CFC/a.

Table 14: Actual CFC-12 consumption in India (both eligible and non-eligible)

Year	2003	2004	2005	2006	2007	2008	2009	2010
Various refrigeration projects (see table 2) *	77 tons	67 tons	18 tons	0 tons	0 tons	0 tons	0 tons	0 tons
Aerosol sector excl. MDI**	52 tons	52 tons	0 tons	0 tons	0 tons	0 tons	0 tons	0 tons
MDI use***	120 tons	120 tons	120 tons	120 tons	120 tons	120 tons	120 tons	0 tons *****
Refrigeration manufacturing sector****	155 tons	155 tons	103 tons	52 tons	0 tons	0 tons	0 tons	0 tons
Refrigeration Service Sector	1510 tons	1352 tons	1187 tons	1040 tons	896 tons	767 tons	636 tons	0 tons
Stock piling for service, MDI *****	155 tons	180 tons	210 tons	210 tons	-14 tons	115 tons	246 tons	0 tons
<b>Total (incl. MDI)</b>	<b>2068 tons</b>	<b>1925 tons</b>	<b>1638 tons</b>	<b>1422 tons</b>	<b>1002 tons</b>	<b>1002 tons</b>	<b>1002 tons</b>	<b>0 tons *****</b>
<b>Total (excl. MDI)</b>	<b>1948 tons</b>	<b>1805 tons</b>	<b>1518 tons</b>	<b>1302 tons</b>	<b>882 tons</b>	<b>882 tons</b>	<b>882 tons</b>	<b>0 tons</b>

\* CFC-12 consumption as per MLF Secretariat database "Agency38.mdb"

\*\* CFC-12 consumption as per MLF Secretariat database "Agency38.mdb"

\*\*\* Estimate; does not oblige India to any restriction in CFC-12 consumption for MDIs

\*\*\*\* CFC-12 consumption based on MLF Secretariat database "Agency38.mdb" for share CFC-12/CFC-11 and on project agreement UNEP/OzL.Pro/ExCom/38/70 Annex X for total consumption

\*\*\*\*\* Total of stockpiling equal to Service Sector demand estimate for 2010 to 2014

\*\*\*\*\* Does not include consumption related to any potential essential use exception



**Component 2**

**POLICY AND CUSTOMS TRAINING STRATEGY**

**OZONE CELL, MINISTRY OF ENVIRONMENT AND FORESTS,  
GOVERNMENT OF INDIA**

**April 2003**

Annex 4

**INDIA**

**FOAM SECTOR PHASE-OUT PLAN**

**Operational Mechanism for Implementation**

Draft 2: Prepared 19 October 2002

Revised: 31 July 2004

**Component 2**

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## 1. INSTITUTIONAL FRAMEWORK

### 1.1 INTRODUCTION

This document describes the Operational Mechanism for Implementation (OMI) for the Sector Phase-out Plan for CFCs in the Foam Sector in India and the roles and responsibilities of the Government of India (GOI), United Nations Development Programme (UNDP) and the prospective Recipient Enterprises (CFC consuming enterprises to be covered under this Plan).

The OMI has been prepared by UNDP in collaboration with the Ozone Cell, Ministry of Environment and Forests, Government of India (hereinafter referred to as "MOEF") for implementation of the Sector Phase-out Plan for CFCs in the Foam Sector.

The OMI should be read in conjunction with the following documents:

- Agreement between the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol - Document UNEP/OzL.Pro/ExCom/37/71, Annex-VII.
- Approved project document for the project "Sectoral Phase-out Plan for Elimination of CFCs in the Foam Sector in India"

This OMI is not intended to supersede any of the existing legal and other obligations or new legal or other obligations emanating from the above documents, of the Government of India. It is to be considered as a dynamic and evolving document and may be revised as required during the course of implementation of the project.

### 1.2 BACKGROUND

On behalf of Government of India (GOI), UNDP submitted a proposal entitled "Sectoral Phase-out Plan for Elimination of CFCs in the Foam Sector in India", in July 2002 to the Executive Committee (ExCom) of the Multilateral Fund (MLF) for Implementation of the Montreal Protocol for the phase-out of Ozone Depleting Substances (ODS). The proposal was reviewed and evaluated by the Multilateral Fund Secretariat (MLFS) and was approved by ExCom at its 37<sup>th</sup> Meeting in July 2002.

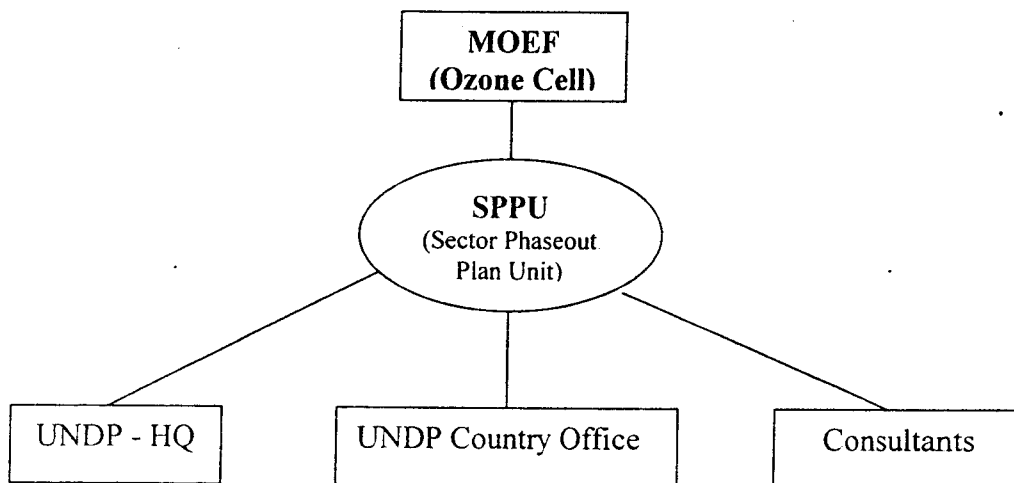
The project provides India with an overall framework for phase-out of CFCs in the Foam Sector within the time frame provided by the Montreal Protocol (by 31 December 2006) and generates additional responsibilities and obligations for GOI in implementation and management of the project. The project comprises a funding agreement over the duration of the project and links stipulated annual CFC phase-out targets to annual funding tranches. The funding includes provisions for incremental costs for Investments, Technical Support and Policy & Management Support.

The main characteristics of the Sector Phase-out Plan in the Foam Sector in India are as follows:

- The responsibility for meeting the agreed annual CFC phase-out and consumption levels in the Foam Sector rests with GOI.
- It incorporates reporting mechanisms for GOI (MOEF/Ozone Cell) for disbursement of agreed annual funding tranches. In accordance with the agreement, Annual Implementation Programs will need to be developed for each calendar year and submitted to the last ExCom meeting in the preceding year. Through its endorsement of the Annual Implementation Programs and subject to achievement of agreed annual targets in the preceding year, ExCom will approve and release the annual grant tranches.
- It incorporates verification of achievement of annual CFC phase-out and consumption targets in the Foam Sector and that the associated policy actions, technical support and training activities have been carried out according to the Annual Implementation Program.

### 1.3 ROLES AND RESPONSIBILITIES OF STAKEHOLDERS

This section outlines the roles and responsibilities of respective stakeholders in the implementation of the Foam Sector Phase-out Plan. The major stakeholders which will be involved in the implementation, are as in the following diagram:



#### 1.3.1. Short description / definition of the stakeholders.

##### A) Ministry of Environment and Forests (MOEF)

MOEF is the designated ministry responsible for implementation of Montreal Protocol in India. MOEF – through its Ozone Cell -- will carry out its responsibilities within the following institutional framework:

- ♦ Empowered Steering Committee: Chaired by the Secretary, MOEF, for coordination at the national level for meeting India's obligations under the Montreal Protocol supported by three standing committees:
- ♦ Technology and Finance Standing Committee (TFSC): For providing policy and technical guidance, direction and oversight to the overall Montreal Protocol program.
- ♦ Standing Committee for Small Scale Industry (SCSSI): Entrusted with advising on ODS phase-out and compliance by the crucial small industries sector
- ♦ Standing Committee for Monitoring and Evaluation (SCME): For advising on and monitoring of implementation.

B) Sector Phase-out Plan Unit (SPPU): To be established under the Ozone Cell (MOEF), with the assistance of UNDP, for management and coordination of the Sector Phase-out Plans. The detailed terms of reference for the staff for constituting the SPPU are attached as Annex-2. The SPPU will facilitate implementation of Sector Phase-out Plans.

C) UNDP-HQ / UNDP-CO: As the implementing agency for the Foam Sector Phase-out Plan, UNDP will be implementing the programme using the Direct Execution Modality (DEX). It's Montreal Protocol Unit in New York has been actively involved in the project preparation phase, will guide the overall implementation process, guide the UNDP Country Office whenever needed, finalize / submit the yearly progress reports and defend them at the meetings of the Executive Committee of the Multilateral Fund, to obtain the subsequent funding tranches of the programme. UNDP's Country Office located in New Delhi will liaise closely with the SPPU to carry out the implementation of the project activities.

#### 1.3.2. Role of the Stakeholders.

The role of each of the stakeholders in each of the anticipated project implementation activities is provided in the following table. Each stakeholder's involvement is indicated as high "h", medium "m" or low "l". The stakeholder bearing responsibility for a given activities is indicated with a capital "H".

ACTIVITY	MOEF	UNDP-HQ	UNDP-CO	SPPU	Consultant
Ownership of the programme and leader of the programme, all monitoring functions	H				
Setting up operational procedure for participation of recipient enterprises	H			I	I
Overall responsibility for monitoring and supervision of implementation activities with the assistance of UNDP	H	h		h	m
Project Preparation Activities, business planning, plan visits of consultants, negotiate with MLF Secretariat and ExCom, liaise with MOEF.	m	H	I		H
Inform MLF Secretariat and ExCom about status in yearly progress report for MLF	m	H	I		H
Obtain funding from MLF Treasurer, finalization of prodoc, negotiating implementation arrangements	I	H	I		I
Drafting TOR's and managing for SPPU and consultants	I	H	I		m
Managing of SPPU activities and consultants		m	H		
Cooperation with UNDP-Experts		I	I	H	H
Recruitment International consultants		H	I		
Recruitment National consultants / payments of national personnel / F10		H	H		I
Obtain signatures for prodocs / yearly tranches	m	m	H		
Process budget revisions		m	H		
Organize/participate in supervision missions, monitoring meetings / standing committees / TPR's	h	I	H	h	m
Enforcement of the ODS Regulations in relation to this project	H			m	m
Supervision of other activities, such as public information and awareness initiatives, training programs, as needed.	m			H	m
Provide advice and resolve eligibility issues related to MLF	I	H			m
Establishing mechanism of RC participation in the Sector phase-out Plan and in determining the sequence of RC participation	I		I	H	m
Provide Technical advise to recipient enterprises on industrial conversion process					H
Carry out visits at these enterprises on a regular basis and report on progress				H	H
Preparation of specifications, terms of reference and vendor shortlists			I	H	H
Preparation of Invitations to Bid (ITBs), carrying out international/local competitive bidding exercises for equipment/services + opening of bids			H	h	H
Finalization of vendor selections, evaluation of bids/vendors			h	H	H
Submission of documentation related to procurement-preparation			I	H	
Contracts Committee (local or HQ depending on size)		H	m		
Issuance of Purchase Orders & payment to vendors / recipients			H	h	I
Arranging customs clearance of internationally procured equipment			H	I	I
Ensuring local distribution of equipment to the recipient enterprises			I	m	H
Ensuring implementation of the Local Works needed to install equipment				I	H
Ensuring production start-up with CFC-free technology, Test Trials				I	H
Monitoring and supervising enterprise-level CFC phase-out and baseline equipment disposal, including any required inspection visits to RCs				h	H
Carrying Out payments for incr. Operational costs if applicable			H	I	
Collection of official affidavits/SOC upon respective enterprise phaseout protocols	I			H	H
Arranging verification audits of Annual Implementation Programs		H	I	h	H
Providing inputs for preparation of Annual Implementation Programs / progress reports to UNDP		m	I	H	m
Review of yearly progress reports, and action plans, negotiate with MLF Secretariat and ExCom on obtaining next funding tranche, finalization of yearly prodoc corresponding to tranche.	I	H	I	h	H
Cooperating with supervision and audit verification teams or with independent reviewers appointed by ExCom, to verify the findings of the audits	h	m	I	H	m

H: high involvement and having lead responsibility for the activity concerned

h: high involvement

m: medium involvement

I: low involvement



### 1.3.3 Role of the Recipient Enterprises

While the recipient enterprises are not considered as a stakeholder in carrying out the implementation of the project per sé, they also play a key-role as the recipient of the project activities. The obligations and responsibilities of each of the recipient enterprises participating in the Sector Phase-out Plan will include the following:

- Designating a contact person for the project
- Undertaking to be available for interacting and cooperating with Ozone Cell/SPPU and UNDP
- Providing all documentation and declarations as may be required by MOEF for participation in the Sector Phase-out Plan in the prescribed format
- Agreeing to the specifications, terms of reference and vendor shortlists prepared by UNDP/SPPU experts
- Preparing the sites and completing all required local works for installation of equipment procured and provided to the enterprise under the terms of participation in the Sector phase-out Plan
- Ensuring the installation and commissioning of all equipment and services including all changes to the production operations for ensuring phase-out of CFCs, in cooperation with the suppliers and in accordance with the terms of reference provided
- Undertaking to irrevocable phase-out of CFCs upon completion of the project and in accordance with the agreed schedule
- Ensuring that the CFC-based baseline equipment replaced under the project is irrevocably rendered unusable with CFCs
- Undertaking to maintain production and other related records and make them available for review and verification as may be required
- Providing inputs to SPPU and UNDP for preparing project completion reports as may be required Accepting supervision/inspection teams from SPPU/MOEF, relevant government agencies and UNDP, as well as designated experts and verification/audit teams
- Complying with all laws and regulations related to the Montreal Protocol promulgated by GOI including the ODS (Regulation) Rules
- Participating in workshops/meetings as called for by SPPU/UNDP

## 2. OPERATIONAL PROCEDURES

### 2.1 ANNUAL IMPLEMENTATION PROGRAMS

#### 2.1.1 Preparation

For each year of the duration of the Sector Phase-out Plan, UNDP, in cooperation with the SPPU, will prepare an Annual Implementation Program for the calendar-year period and following its review and clearance by Ozone Cell/MOEF, will submit it to the last ExCom meeting of the preceding year. Upon approval by ExCom, the annual grant tranche will be transferred from the MLF to UNDP. Disbursement of funds from UNDP will be subject to release of funds from MLF. The Annual Implementation Program will include:

- Review of the preceding year's Annual Implementation Program, detailing realization of CFC phase-out targets, progress of implementation of all activities and status of disbursements
- Monitoring indicators
- Details of activities proposed to be carried out
- Amounts and schedule of disbursements
- Request for funding allocation from annual grant tranche
- Confirmation by UNDP that the preceding year's targets have been satisfactorily met

#### 2.1.2 Inputs from SPPU

SPPU will provide the following inputs to UNDP for the Annual Implementation Programs:

#### Reporting for the preceding year:

- Actual CFC phase-out achieved at enterprise level
- Agreed remedial actions for the current year, in the event CFC phase-out targets in the preceding year were not met
- Report on all other activities undertaken

#### Planning for the current year:

- CFC phase-out expected from participating enterprises
- Annual grant tranche for the year and budget estimates for each of the activities
- Projected disbursement schedules and amounts
- Monitoring Indicators

### 2.1.3 Verification and certification

#### By Ozone Cell/MOEF

Ozone Cell/MOEF will commission independent technical auditors, such as Chartered Engineers or similar authorized entities to verify and certify that all project inputs have been provided at enterprise level, the agreed CFC phase-out has been established and all other obligations have been met by the recipient enterprise(s). The terms of reference for such audit will be developed in consultation with UNDP.

#### By UNDP

UNDP shall carry out final inspection, verification and certification of the project inputs at enterprise level to establish completion of all activities and disposal of replaced CFC-based equipment and to establish that the agreed CFC phase-out has been achieved. UNDP shall also carry out independent verification and certification of all other activities envisaged in the annual implementation program.

## **2.2 PROCUREMENT**

The international and local procurement of equipment and services required in the implementation of the Foam Sector Phase-out Plan, jointly by UNDP and SPPU, through an integrated Procurement Support Group comprising of designated representatives and experts from SPPU and UNDP. The procurement procedures are described in more detail in Annex-3. The respective distribution of responsibilities for procurement activities would be as below:

### 2.2.1 SPPU Responsibilities

- Preparation and finalization of terms of reference, scope, specifications of and vendor short-lists for equipment & services to be procured, in consultation with the respective recipient enterprises and with the support of designated UNDP technical experts
- Objective and transparent techno-commercial evaluation of bids received from the vendors and recommendation of the technically acceptable vendor offering the lowest prices

### 2.2.2 UNDP Responsibilities

- Issuance of Invitations to Bid to the short-listed vendors as advised by SPPU
- Opening of Bids and sending the bids to SPPU for evaluation
- Issuance of Purchase Orders/Contracts to the selected vendors
- Effecting payments to the selected vendors in accordance with the terms of the purchase orders/contracts, upon authorization by SPPU
- Arranging customs clearance and delivery of internationally procured equipment to the respective recipient enterprises

## **2.3 DISBURSEMENT**

The disbursement of the funding for the Foam Sector Phase-out Plan is governed by the agreement between GOI and the Executive Committee (UNEP/OzL.Pro/ExCom/37/71). The flow of funds for the implementation of the Foam Sector Phase-out Plan is summarized below:

### 2.3.1 From MLF to UNDP

Upon ExCom approval of the Annual Implementation Program, the approved grant tranche for each year will be transferred from the MLF to UNDP subject to fund availability at MLF. This will include all project funds covering the incremental capital costs for the investment and policy & management support components, the approved incremental operating costs and agency fees.

### 2.3.2 From UNDP to SPPU

The approved funding tranche for each year, covering the Policy and Management Support Component in the Foam Sector Phase-out Plan, would be disbursed by UNDP to SPPU in accordance with UNDP financial rules and procedures, upon submission by SPPU to UNDP, the required requisitions for activities to be undertaken by SPPU under the Foam Sector Phase-out Plan. The salaries of SPPU staff and SPPU capital and operational expenses shall be disbursed by UNDP in accordance with the contractual terms and applicable UNDP rules and procedures.

### 2.3.3 From UNDP to Suppliers

UNDP will effect payments to international and local suppliers of equipment and services, procured under the Foam Sector Phase-out Plan, in accordance with the agreed contractual terms and in line with procurement procedures for the Foam Sector Phase-out Plan detailed in Annex-3, upon endorsement by SPPU.

### 2.3.4 From UNDP to Recipient Enterprises

All eligible reimbursements of expenses and eligible incremental operating costs as approved in the Foam Sector Phase-out Plan, shall be disbursed directly by UNDP to the recipient enterprises, upon receiving an endorsement from SPPU that the endorsed amounts are reasonable and eligible and that the required supporting documentation in accordance with the agreed terms between Ozone Cell/MOEF and the recipient enterprises has been provided and reviewed.

## **3. MONITORING & REPORTING**

The Ozone Cell/MOEF will have the overall responsibility for monitoring the implementation of the Foam Sector Phase-out Plan. The monitoring indicators for outputs at the national and enterprise levels would be as below:

### **3.1 NATIONAL LEVEL MONITORING INDICATORS**

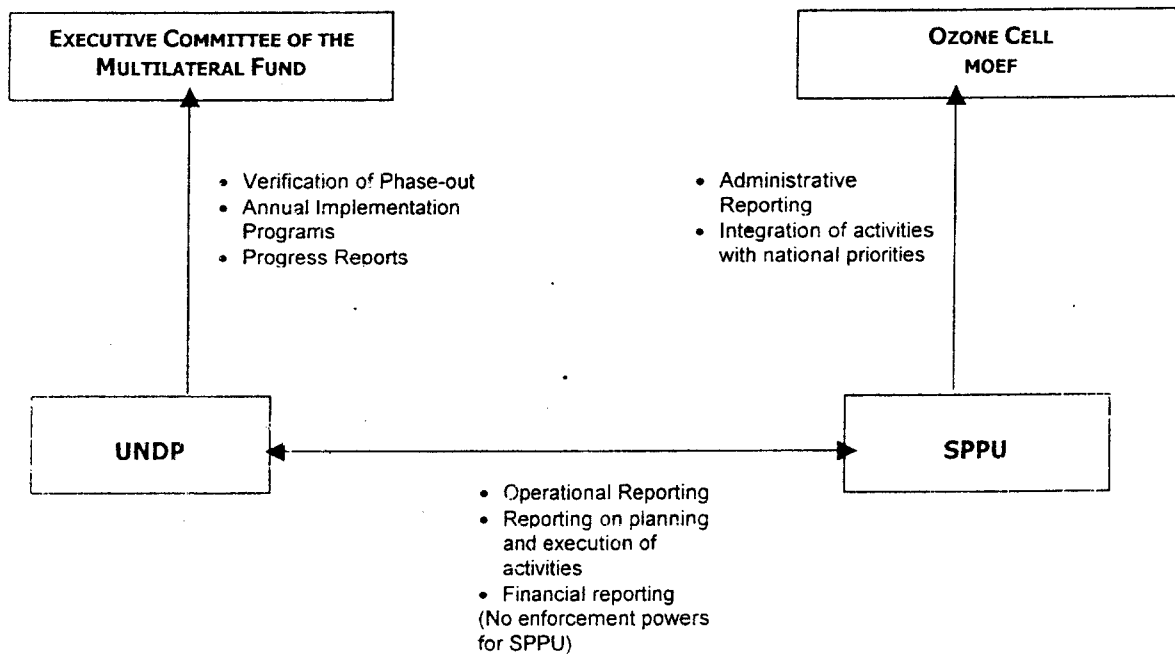
- Annual domestic production level of CFCs
- Annual domestic consumption of CFCs in the Foam Sector
- Annual maximum permissible consumption level of CFCs in the Foam Sector
- Annual CFC phase-out targets as prescribed in the Annual Implementation Program
- Annual CFC phase-out actually achieved in the Foam Sector
- Annual fund disbursements from the Sector Phase-out Plan
- Data reporting obligations under Article-7 of the Montreal Protocol
- Promulgation of any new policies and regulations pertaining to the Foam Sector phase-out Plan
- Implementation status and effectiveness of policies and regulations pertaining to the Foam Sector Phase-out Plan

### 3.2 ENTERPRISE LEVEL MONITORING INDICATORS

- Baseline CFC consumption figures for enterprises with ongoing (under implementation) conversion projects under the Montreal Protocol
- Baseline CFC consumption figures for enterprises participating in the Sector Phase-out Plan
- CFC phase-out targeted at enterprise levels, in the Annual Implementation Programs
- CFC phase-out achieved at enterprise level

### 3.3 ADMINISTRATIVE REPORTING

The following figure illustrates the proposed administrative reporting mechanism:



## ANNEX-1

### FORMAT FOR PARTICIPATION AGREEMENT WITH RECIPIENT ENTERPRISES TO BE COVERED UNDER THE FOAM SECTOR PHASE-OUT PLAN

Ozone Cell  
Ministry of Environment & Forests  
New Delhi, India

Dear Sirs,

#### PHASE-OUT OF CFCs IN THE MANUFACTURE OF (SUB-SECTOR) FOAM

In connection with the above we hereby confirm the following:

- a) We presently consume polyurethane chemicals in our production of (sub-sector) foam. We procure these chemicals mainly from local chemical suppliers who have been helping and advising us regarding the usage of these chemicals to enable us to maintain the properties of our end products and meet our customer's requirements economically. We understand that these polyurethane chemicals contain CFCs, which have to be phased out in future, as per international agreements.
  - b) We have been assured by our chemical suppliers that they will be able to supply us the alternative chemicals that will give us the desired quality of end products. We understand that our present technology and process may not be suitable for working with the alternative chemicals and that we may be eligible to receive equipment suitable for handling the alternative chemicals, which may be made available to us under the supervision of MOEF/UNDP.
  - c) We are agreeable to participate in a group/sectoral project covering enterprises similar to us producing foam, with the aim of phasing out CFCs. Under this project, we understand that we may be eligible to receive equipment, trial materials, training, technical assistance, etc.
  - d) We agree to accept the equipment and selected conversion technology recommended by UNDP/MOEF as per specifications to be developed by them. We also agree that MOEF/UNDP may make any required technical decisions affecting the technology selection, to ensure that project objectives are achieved and the selected technology can be applied in accordance with established industrial standards and practices for operation and environmental & occupational safety.
  - e) We understand and accept that the Government of India and UNDP will make a determination of the amount of funding we will be eligible to receive, in order to effect phase-out of CFCs.
- 2) We confirm the following baseline information about our enterprise:
- Consumption of CFC-based chemicals: \_\_\_\_\_ MT (for CY 2000)  
Baseline equipment/process: Hand-mixing/Low-pressure dispenser/High-pressure dispenser  
Date of Establishment/Registration:  
Date of commencement of commercial production:  
Name of Proprietor/Partner/Managing Director:  
Address of Registered Office/Proprietor/Partner:  
Address of factory where CFC phase-out will be implemented:
- 3) We hereby undertake:
- a) To bear any costs required for successful conversion to fully CFC-free technology over and above the approved funds.
  - b) To discontinue the use of CFCs and to dispose all redundant baseline equipment replaced under the project, upon project completion and to allow monitoring inspections by Government of India and/or UNDP or their designated representatives during project implementation and after project completion, to verify the same.
  - c) To assume all liabilities which may arise throughout the conversion process.

This letter may be treated as our formal application and confirmation of our baseline data, for seeking assistance from the Multilateral Fund of the Montreal Protocol for phasing out of CFCs in our manufacturing process.

**(Signed)**  
**Authorized Signatory**

## ANNEX-2

### TERMS OF REFERENCE FOR SPPU STAFF

#### 1. NATIONAL PROGRAMME MANAGER

The mandate of the Sector Phase-out Plan Unit (SPPU) to be constituted for implementation of the Foam Sector and Refrigeration (Mfg) Sector Phase-out Plans in India, would be to assist the Ozone Cell, Ministry of Environment and Forests (MOEF) and UNDP for implementation of the Plans, to be carried out through a combination of Investment and Policy & Management Support components, and to facilitate achievement of the CFC consumption and phase-out targets in these Sectors in India, in accordance with the respective agreements between Government of India and the Executive Committee of the Multilateral Fund (UNEP/OzL.Pro/ExCom/37/71, Annex-VII and UNEP/OzL.Pro/ExCom/38/70, Annex-X). UNDP is the designated implementing agency for these projects and will provide the required technical and infrastructural support for the implementation of these Plans.

#### Duties and responsibilities

The National Programme Manager will have overall operational responsibility for coordinating the implementation of these Plans and any other Sector Phase-out Plans approved for UNDP implementation. The National Programme Manager will be responsible for regular review and implementation of the Plans under the supervision of Director, Ozone Cell and guidance of the Regional Programme Coordinator, UNDP-MPU. The National Programme Manager shall work in close cooperation and coordination with UNDP India Country Office and UNDP international/national experts and is expected to discharge the following functions,

- a) Manage the day-to-day functioning of the SPPU.
- b) Manage and monitor activities performed by the other SPPU professional and general staff.
- c) Act as an interface between UNDP, MOEF and other relevant organizations/departments on activities relating to the SPPU.
- d) Assist Ozone Cell in verification of baseline CFC consumption levels and other information at the enterprise level and with the assistance and inputs of the international/national experts, determine the sequence of their participation.
- e) Obtain from the participating enterprises under the Plans, any required documentation or confirmations as may be advised by MOEF and UNDP in the appropriate formats.
- f) Review, on behalf of the Ozone Cell, upon request from UNDP, any documentation related to the procurement of equipment and subcontracts, such as specifications, terms of reference, shot lists of vendors, invitations to bid, evaluations of bids, etc. and endorse these documents for further processing by UNDP.
- g) With the assistance of the UNDP international/national experts, ensure proper completion of projects at enterprise-level, including CFC phase-out, destruction of baseline equipment, depletion of CFC stocks and issuance of completion documentation, etc.
- h) With the assistance and inputs of the UNDP international/national experts, prepare periodic reports for Ozone Cell to be submitted to various stakeholders including MOEF and UNDP, including the preparing annual implementation programmes, revisions of the project document, work plans, progress reports, etc., including verification of annual phase-out targets and any documentation needed by UNDP for obtaining release of annual funding tranches for these Plans.
- i) Participate in and cooperate with UNDP's periodic missions to India, participate in UNDP's tripartite review meetings, and participate in any possible auditing/evaluation tasks and visits that may be initiated under the Plans.
- j) Supervision of the public awareness and information dissemination activities, including workshops, to be carried out under the Plans
- k) Assist Ozone Cell in implementation and enforcement of policies and regulations pertaining to the implementation of the Plans, as per the ODS (Regulation) Rules, 2000.
- l) Ensure proper filing of all pertinent records, documentation and communications, to and from SPPU, relevant to the implementation of the Plans.
- m) Manage and maintain proper records of financial transactions performed by SPPU.