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Executive Committee of
the Multilateral Fund for the
Implementation of the Montreal Protocol

Twelfth Meeting
Montreal, 28-30 March 1994

UNIDO PROGRESS REPORT

This document includes:

- Comments and recommendations of the Fund Secretariat

- UNIDO Progress Report

COMMENTS AND RECOMMENDATIONS OF THE FUND SECRETARIAT

COMMENTS

ODS phase-out

1. The Phasing-out of the Use of CFC-12 in the Manufacture of Extruded Polystyrene Foam at Advechems Company in Egypt will be the first UNIDO-sponsored projects to result in ODS phase-out. The project was approved in June 1992 by the Committee, has already disbursed over half of the funds allocated and will be completed by the middle of 1994.

Grant agreements

2. UNIDO is an executing agency with the capacity to conduct activities leading to procurement, construction, and commissioning of projects that will result in ODS phase-out. UNIDO has standing agreements with several of its client countries to perform investment project activities which enables it to initiate the project execution shortly after Executive Committee approval.

Project execution

3. UNIDO currently has three investment projects in its portfolio representing US $4.2 million with more submitted for consideration at this meeting. As mentioned above, one of the projects will be completed soon and activities are underway for establishing the project management structure for the project, Conversion of Domestic Refrigerator Production Facilities to Phase-out CFC-11 and CFC-12 in Iran. A decision on the local consultant for the Indian project, Conversion of Electronid Cleaning Process to Non-CFC Cleaning, has not yet been reached by the Indian government.

Work programme activities

4. Most of UNIDO's work programme activities concern project preparation although it is also responsible institutional strengthening in Egypt, country programme preparation in Romania, feasibility studies and phase-out strategies. UNIDO's original 1993 work programme budget was increased from about US $500,000 to US $2.7 million during 1993. Of that amount, about US $371,000 was expended as at 31 December 1993. Most of the carryover is attributed to work programme amendments.

5. It should be noted that the update of the China country programme has not yet received Committee approval and the eligibility of the manufacture of tobacco expansion equipment has not yet been determined.

Coordination

6. There is some mention of coordinating activities with other implementing agencies in the progress report but a distribution of areas of involvement is not discussed although both UNIDO and the World Bank have activities planned for Argentina, Brazil, China and Thailand, sometimes in the same sector. Also, UNIDO should cooperate with the other agencies in the development of project supervision reporting to the Executive Committee.

7. UNIDO should be encouraged to work with UNDP, USEPA, and UNEP in the development of a strategy for the small industries sector. In particular, UNDP's experience with the development of a strategy for the small industries sector in China should be taken into account in UNIDO's study.

RECOMMENDATION

8. The Fund Secretariat recommends that the Executive Committee take note, with appreciation, the progress report of UNIDO and requests UNIDO to cooperate with other agencies in the development of a reporting format for project supervision activities.

UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Executive Committee of
the Multilateral Fund for the
Implementation of the Montreal Protocol

Twelfth Meeting
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PROGRESS REPORT
OF
UNIDO

as at 4 February 1994

PROGRESS REPORT

Table of Content

I. Introduction

This report covers the development of UNIDO's ozone programme from November 1993 to early February 1994 when the report is prepared. Since this period covers the transition over two years, it is deemed useful to provide a short review of the operations of the past year 1993. This also serves as a basis for the Work Programme in 1994.

In Section II on "UNIDO's Ozone Operations in 1993: the Year in Review", a brief flashback to the operational activities in 1993 describes the growth of the programme in volume and, more importantly, the maturity UNIDO has acquired in its first year with the Multilateral Fund for the Implementation of the Montreal Protocol.

This is followed by a short discussion of the policy issues related to the operation, in particular the latest developments in the field of inter-agency coordination and procedures on technical review of investment projects. This Section also pinpoints the shortcomings which still exist in UNIDO.

In Section III, a project-by-project report is presented, first in a narrative way and then in form of a table covering the reporting period.

Finally, Section IV includes a table on the financial status of each project.

II. UNIDO's Ozone Operations in 1993: the Year in Review

1. Operational Activities

1993 was a year of "breaking-in" for UNIDO in the global ozone operations. Looking back, it was also a year of initial success for UNIDO in this active programme. This success is expressed in the volume growth of the programme and, more importantly, in the ease with which UNIDO handles the programme.

Growth in programme volume:

By November 1993, UNIDO's ozone operations have covered about 20 countries and approvals by the Executive Committee have reached about US$7 million.

Programme in maturity:

In about a year's time, since its acceptance as an implementing agency for the Multilateral Fund for the Implementation of the Montreal Protocol, UNIDO has found its position where it feels comfortable in the global operations. Its decades of experience working at industrial enterprise-level, has contributed to its initial success in technology conversion at the enterprise-level. Its in-house technical expertise has helped tremendously in its dialogue with enterprise managers to choose the most desirable and appropriate technology transfer packages, including industrial design and re-design, re-tooling requirements, process modifications, testing, training and re-training. This has been especially demonstrated in its field operations in Egypt, Iran, Jordan and other countries in the refrigeration and foam sectors. As a result, there has been a steady increase in requests from Article 5 countries for UNIDO's involvement at plant-level in these two sectors and it can easily be predicted that this trend will continue into 1994.

UNIDO has been working for many years with the small- and medium-scale industries sector in developing countries. This experience has also been found of great importance in ODS phase-out operations, especially in handling the informal sectors in developing countries and in working out a strategy to phase out the use of ODS in low ODS consuming countries. In the current UNIDO portfolio under the Montreal Protocol, one of the projects in India, i.e. "Phase-out of CFCs in the Informal Sector" and the global project "Phase-out of ODS in Low-consuming Countries" will enable UNIDO to contribute strategically to the global ozone operations.

2. Policy Issues

A. *Interagency Cooperation*

In view of the fast expansion of the programme, UNIDO has perceived more acutely the need for inter-agency coordination and cooperation. As a matter of fact, UNIDO has already benefited a lot from this cooperation. This is especially true in the past few months since the last Executive Committee Session in Bangkok.

- *Cooperation with UNDP:*

Because of similar experience so far in the management of technical cooperation, the two organizations share similar problems in managing an investment project portfolio, in particular in harmonizing internal operating procedures with the needs of the Fund. UNIDO has already benefited from the efforts UNDP's management has made in this respect.

UNDP and UNIDO have also agreed to share experience in establishing a project management information system on which UNDP has already started to work.

- *Cooperation with UNEP:*

Following up on the discussion in 1993 on working together, the two organizations have started this year on joint country programming exercises in low ODS consuming countries. UNIDO's contribution will be the identification of industrial actions and projects for ODS phase-out. For this, a project proposal is submitted to this Executive Committee Session for UNIDO's participation in country programme exercises in 13 countries.

Together with UNEP, UNIDO is also working on a strategy for ODS phase-out in these low-consuming countries (annual consumption of ODS below 200 MTs).

- *Cooperation with US/EPA:*

UNIDO is also working with US/EPA on the strategy on low-consuming countries. The latter has also good experience in this field.

B. *Technical Review of Investment Projects*

As one of the requirements of the Fund in project development, technical review of investment projects should be done independently by people who have not been party to project development. For this purpose, a procedure for technical review of investment projects has been prepared and is being followed on a trial basis. This procedure consists of an internal review by UNIDO experts and an external review by independent experts. This double-check procedure takes advantage of UNIDO's in-house expertise and will hopefully result in better quality products.

3. Shortcomings in the Programme

Due to the fast expansion of the programme in 1993, management of the programme has not kept up with the pace. This is especially evident in the incompatibilities in some of the operating procedures between those of UNIDO and the needs of the Fund. It is partly attributable to the different nature of the operations UNIDO has been largely dealing with technical cooperations, and the Fund with industrial investment actions at production-level.

Some changes in UNIDO's current operating procedures are necessary and will be made. Another area where re-enforcement is needed is a project management information system which has not been put in place. With UNIDO's investment project portfolio expanding quickly, a monitoring system is absolutely a <u>must</u> and will be done in 1994.

In general, it is fair to say that 1993 has been a year of expansion for UNIDO's ozone programme. However, 1994 will be characterized by programme consolidation, in particular in the above-mentioned areas.

III. Project-by-Project Progress Report from November 1993 to 4 February 1994

Egypt

- ***Elements of a Strategy in the Refrigeration and Air-conditioning Industry in Egypt: Government of Egypt***

The strategy has been completed and submitted to the 12th Session of the Executive Committee. An Executive Summary is submitted together with the strategy paper to provide better comprehension of the main strategy paper.

The strategy is intended to give a sectoral overview and an approach to the phase-out activities in the refrigeration industry. UNIDO will continue to follow this approach in other relatively large consuming countries and sectors.

Three domestic refrigeration investment projects are submitted to the 12th Session of the Executive Committee under this strategy.

- ***Preparation of Investment Projects in Phasing-out of CFCs at Kiriazi Household Refrigerators Manufacturing Co. and Electrostar Household Refrigerator Manufacturers, Cairo, Egypt***

In addition to the two companies, UNIDO also covered a third company in its project formulation work, as requested by the Government. As a result, the following three investment project proposals are submitted to the Committee:

Project Title	Project Impact	Incremental Costs Requested (US$)	Technology Chosen
• Investment Project for Phasing-out ODS at Delta Industry Co.	40 MT CFC-11 50 MT CFC-12	4,478,000	HFC-134 a for CFC-12 Cyclopentane for CFC-11
• Investment Project for Phasing-out ODS at Kiriazi	90-MT CFC-11 30 MT CFC-12	3,334,000	HFC-134 a for CFC-12 Cyclopentane for CFC-11
• Investment Project for Phasing-out ODS at Electrostar	30 MT CFC-11 14 MT CFC-12	2,173,000	HFC-134 a for CFC-12 Cyclopentane for CFC-11

- ***Phasing-out the Use of CFC-12 in the Manufacture of Extruded Polystyrene Foam at Advechems***

Project implementation is under way, the study tour is completed. Subcontract is under execution, equipment and input materials (chemical substitutes) are being procured. Expected completion date: mid 1994.

This is going to be the first investment project which UNIDO will have completed under the ozone programme. 196 MT of CFC to be phased out.

- ***Institutional Strengthening Unit for the Montreal Protocol Related Activities***

EEAA, the beneficiary of this institutional strengthening project, has become fully operational and is exercising an effective coordinating role for the industrial ODS phase-out activities between the Government and enterprises, as well as between Egyptian enterprises and implementing agencies.

A consultant has been recruited to design a data base for project management. A national awareness workshop on ODS phase-out in the refrigeration and air-conditioning sector is planned in 1994. Together with UNEP/UNIDO, EEAA is organizing a public information campaign through the Egyptian TV.

India

- ***Feasibility Study for the Recovery and Recycling of CFC Refrigerants***

MANTEC consulting company has been identified by MOEF as the national consultants. Terms of Reference have been prepared by UNIDO and were discussed with MANTEC. Accordingly, MANTEC sent in its offer. The contract can be signed within weeks. The project is experiencing delay due to underestimation of the challenge of the task.

- ***Conversion of Electronid Cleaning Processes from CFC-113/Alcohol Blended Solvents and 1,1,1 Trichloromethane to Non-CFC Cleaning***

Identification of the Indian consultant has not yet been made. UNIDO proposed to cooperate with the Development Commission for Small-scale Industry and the C-MET of the Department of Electronics. MOEF will indicate its preference.

Project Preparation on Elimination of ODS Solvents at ITI Mankapur

This investment project proposal has been cleared by the Indian Government in early February 1994 and is submitted to the Executive Committee.

- ***Phasing-out of ODS in Unorganized Sector***

MOEF requested UNIDO to cooperate with the Development Commission for Small-scale Industry. UNIDO prepared terms of reference and discussed them with DCSSI. DCSSI has identified possible Indian consultants. The selection and recruitment follows. The project is experiencing delay due to underestimation of the challenge of the task.

Jordan

- ***Preparation of Investment Projects for Phasing-out CFCs in the Refrigeration Sector***

The following three investment project proposals are submitted to the current session of the Executive Committee as a result of UNIDO's project formulation work:

Project Title	Project Impact	Incremental Costs Requested (US$)	Technology Chosen
• Conversion of Domestic Refrigeration Production Facilities at NRC	7 MT CFC-11 3 MT CFC-12	602,000	HFC 134 a for CFC-12 HCFC 141 b for CFC-11
• Conversion of Domestic Refrigeration Production Facilities at HAMC	12 MT CFC-11 4 MT CFC-12	535,000	HFC 134 a for CFC-12 HCFC 141 b for CFC-11

Project Title	Project Impact	Incremental Costs Requested (US$)	Technology Chosen
• Conversion of Domestic Refrigeration Production Facilities at MEE	15 MT CFC-11 6 MT CFC-12	548,000	HFC 134 a for CFC-12 HCFC 141 b for CFC-11

Brazil

- ***Preparatory Assistance for Elimination of CFCs in the Sector of Polymer Foams Manufacturing of Brazil***

A request from the Brazilian Government was received towards the end of 1993 to assist in converting the production facilities at Metalfrio, which is one of the largest commercial refrigeration manufacturers in the country. UNIDO fielded its mission in early January 1994. The field work is completed now and the draft project document is ready. Before its finalization, the project will be subject to UNIDO's internal and independent external technical reviews. It is expected to be submitted to the next Session of the Executive Committee.

China

- ***Project Formulation in the Foam Sector***

Substantial progress has been made under this project. A senior UNIDO delegation visited China in November 1993 and agreed with the Government on UNIDO's contribution to the phase-out programme in China.

- Prepare the country programme amendment on CFC phase-out in tobacco expansion;
- Involve UNIDO in two investment projects as a start-off of the UNIDO/China cooperation.

Progress to-date

- ***Phasing-out of ODS Used in Tobacco Expansion***

The amendment to the China Country Programme has been completed. It was discussed and adopted at a Workshop which was convened in Beijing from 22 to 23 January 1994. It will be submitted upon clearance by the Government.

The adopted strategy is to manufacture medium-sized (350 kg/hr) non-CFC tobacco expansion units in China. The project document will be completed soon.

- ***Investment Project Formulation***

The Government has requested UNIDO's assistance in the formulation of the following two projects:

1. Nanjing Fire Fighting Equipment Factory

The project was discussed with the Factory manager and technical staff. It was agreed to field a mission consisting of a consultant and a UNIDO staff member. The timing of the mission should be as soon as possible, but after the Spring Festival (Chinese New Year), i.e. after mid-February.

2. Jixaspera Compressor Factory

The project was discussed with the Factory manager and technical staff. It was agreed to field a mission consisting of a consultant and a UNIDO staff member. The timing of the mission should be as soon as possible, but after the Spring Festival (Chinese New Year), i.e. after mid-February.

Syria

- ***Preparation of Investment Projects on: Phasing-out of CFCs at Al-Hafez Refrigerator Factory and at Barada Company for Metal Industry (A manufacturer of household refrigerators)***

A UNIDO mission has completed its field work and prepared two investment project proposals to convert the production facilities at both companies. These proposals are being reviewed internally and will also be reviewed by external independent experts. Both projects will be submitted to the 13th Session of the Executive Committee in June/July 1994.

- ***Support to Strengthen the General Commission for Environment Affairs to Implement Montreal Protocol Related Activities***

The General Commission for Environment Affairs, who is the direct beneficiary of this project, is functional and is exercising effective coordination between Government and industry on CFC phase-out actions and between industry and the implementing agencies.

Four staff have been recruited for the Commission and computer equipment has also been purchased. A data base for project management will be put in place in the second half of 1994.

Argentina

- ***Preparation of Investment Projects on CFC Phase-out at BANDEX S.A. and CELPAK S.A. and Rigid Polyurethane Foams at PRENSIPLAST***

A consultant has been identified and a formulation mission will be sent to the field in the second half of February 1994. The project proposals will be ready for the next session of the Executive Committee.

Cameroon

- ***Preparation of an Investment Project Proposal for Phase-out of CFCs at FAEM***

A consultant has been identified and a formulation mission will be sent to the field in the second half of February 1994. The project proposal will be submitted to the next session of the Executive Committee.

Global

- ***Development of a Strategy for ODS Phase-out in Low-consuming Countries***

A UNIDO expert has prepared a first draft of the strategy and is exchanging notes with the US/EPA, one of the cooperators in this effort. At the same time, the draft has also been sent to UNEP Paris, the Fund Secretariat and other experts for their comments. UNIDO hopes to finalize this strategy after incorporation of the comments provided by the before-mentioned collaborators and to submit a draft strategy to the Executive Committee in June 1994. In the meantime, site visits to some of the low-consuming countries have been planned.

Romania

- ***Preparation of Country Programme***

UNIDO has prepared a draft Memorandum of Understanding (MOU) together with a work schedule and identified consultants for the job. These documents have been transmitted to the Romanian Government for comments. The MOU will hopefully be signed by the Government and UNIDO in February 1994. The Country Programme is scheduled to be ready for the 14th Session of the Executive Committee in 1994.

Kenya

- ***CFC Phase-out Project at Kenya Cold Storage***

Due to UNIDO's internal restructuring and staff movement, implementation has only started now when this report is prepared. As additional qualified staff are involved in the project, progress will be made very soon.

Nigeria

- ***Preparation of CFC Phase-out Strategy for Refrigeration and Air-conditioning Industries and Services***

Same situation as in the Kenya project.

Thailand

- ***CFC Recovery at MAC***

Inter-agency cooperation and share of responsibilities are still being worked out between the World Bank and UNIDO. This will be solved in February 1994.

Iran

- ***Conversion of Domestic Refrigerator Production Facilities to Phase out CFC-11 and CFC-12 at: Arj, Azmayesh, Bahman, Iran Poya, Pars Appliances***

The following project implementation preparations are being made:

- Set up the project management structure with clearly defined roles for each actor and ways of communication between them.
- Selection and recruitment of the Chief Technical Adviser (CTA) is under way.

MONTREAL PROTOCOL FUND

7/2/1994

FMTC/rd

FINANCIAL SUMMARY AS AT 31 December 1993

	Multilateral	Cumulative	BALANCE
	Fund	Expenditures	
	Allocation	(disbursements+	
COUNTRY	(EXCL.SUPP.COST)	obligations)	
	US$	US$	US$
Projects approved by the Executive Committee in its Ninth Meeting March 1993:			
UNIDO Work Programme 1993-Preparatory Phase:			
BRAZIL	150,000	49,996	100,004
CHINA	150,000	42,899	107,101
EGYPT	50,000	35,071	14,929
EGYPT	50,000	49,216	784
IRAN	50,000	17,805	32,195
SYRIA	35,000	27,716	7,284
Projects approved by the Executive Committee in its Tenth Meeting June 1993:			
Amendment to UNIDO Work Programme 1993:			
EGYPT	263,450	35,180	228,270
INDIA	55,000	0	55,000
INDIA	55,000	0	55,000
INDIA	74,000	3,880	70,120
JORDAN	90,000	17,617	72,383
SYRIA	235,180	0	235,180
Investment projects:			
EGYPT	904,000	455,439	448,561
Projects approved by the Executive Committee in its Eleventh Meeting			
12 November 1993:			
ARGENTINA	35,000	0	35,000
CAMEROON	20,000	0	20,000
GLOBAL	100,000	0	100,000
KENYA	380,875	0	380,875
NIGERIA	100,000	0	100,000
ROMANIA	80,000	0	80,000
THAILAND	0	0	0
Investment projects:			
IRAN	3,228,395	0	3,228,395
Sub-total	6,105,900	734,819	5,371,081
Support costs	793,767	95,527	698,241
Total	6,899,667	830,346	6,069,322
Funds received	6,899,617		
Balance	(50)		

PROGRESS REPORT IN TABLE FORM

has been included in the

Consolidated Progress Report UNEP/OzL.Pro/ExCom/12/7