



**United Nations
Environment
Programme**



Distr.
LIMITED

UNEP/OzL.Pro/ExCom/17/41/Add.1
3 July 1995

ORIGINAL: ENGLISH

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

Seventeenth Meeting
Montreal, 26-28 July 1995

PROJECT PROPOSAL: MEXICO

This document includes the Comments and Recommendations from the Fund Secretariat.

PROJECT EVALUATION SHEET

COUNTRY OR REGION: Mexico

PROJECT TITLE: Recovery of CFC-12 in the servicing of domestic refrigeration at Vitromatic Comercial and at Servicios Integrados Fabriles

BUDGET: US \$352,610¹

INCREMENTAL COSTS: US \$352,610

ODS PHASE-OUT: 76 MT

COST EFFECTIVENESS²: US 4.64 per kg. ODP saved

PROJECT DURATION: 1 year

IMPLEMENTING AGENCY: UNDP

NATIONAL COORDINATING AGENCY: National Institute of Ecology

TECHNICAL REVIEW COMPLETED: YES ____ NO ☒ X ____

SECRETARIAT'S COMMENTS

1. The project proposal is to implement a programme for recovery and recycling of refrigerant in the domestic refrigeration sector.
2. The project will result in a phase out of 76 tonnes of CFCs. It will be implemented through the service companies of two domestic refrigerator manufacturers, namely Vitro and Mabe. The Executive Committee, at its Fifteenth Meeting, approved two projects for the conversion of both plants to non-ODS technologies.
3. The proposal took into account the recovery and recycling project approved for the World Bank (under the US \$4 million grant approved at the Fifth Meeting) and the 'hands-on training' and 'pilot sectoral study and action plan in commercial refrigeration' projects as bilateral cooperation by the United States.

¹ Including contingency (10 per cent).

² Determined as the ratio of incremental costs to the estimated annual saving of ODP (\$/ODPkg).
For CFC-11, ODS=ODP.

4. The project includes ten one-day demonstration seminars (five for each of the service companies). The workshops will provide explanation on the need for recovery and recycling, presentation of recovery and recycling methodologies in different systems and good practice during servicing and maintenance.
5. UNDP agreed to reduce the total cost of the training programme to US \$34,000.
6. The recovered refrigerant will be collected by Quimobásicos (a CFC producer) through its distribution network. This company has set up a CFC reclaim center financed through the Fund.. Quimobásicos will supply the necessary recovery cylinders, free of charge, and will give a bonus in the form of a discount of 14 per cent on the price of new refrigerant of the equivalent amount reclaimed. .
7. The project includes a monitoring system for which US \$15,800 is being requested. UNDP agreed that project implementation at the national level could be managed and monitored by the Ozone Unit supported by the Fund. It is to be noted, however, that the three-year period for institutional strengthening in Mexico will end on 31 December 1995, and a project for its renewal is being submitted for consideration by the Committee.
8. The project indicates that operating savings accrued from the 76 tonnes of recovered CFC will be offset by operating costs associated with: (i) larger time needed for a typical repair and maintenance operation in order to recover the refrigerant, (ii) additional transportation of the recovered refrigerant to service workshops, and to and from the recycled centers; and (iii) service charge at the recycling centers. UNDP considers that accounting for operational savings will disincentive small service workshops to cooperate with the programme.

SECRETARIAT'S RECOMMENDATIONS

9. The Executive Committee might wish to consider whether operational savings based on estimates of the tonnage of CFCs recovered, should be taken into account in the presentation of recycling project proposals, and that the monitoring of quantities recovered should be carried out by national ozone units and should not be included in the costs for recycling projects.