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

Eighth Meeting
Montreal, 19-21 October 1992

Addendum

PROJECT PROPOSALS: TURKEY

PROJECT EVALUATION SHEET

COUNTRY OR REGION: Republic of Turkey

PROJECT TITLE: Protection of the Ozone Layer through the Reduction of Consumption of Ozone Depleting Substances

BUDGET: US $7,850,000
(US $965,000 allocated at the June 1992 meeting)
(US $5,300,000 requested at the October 1992 meeting - US $400,000 of which is to be added to the Bank's Work Programme and US $4,900,000 million for final project approval)

INCREMENTAL COSTS: Estimated at 100 percent of the budget

COST EFFECTIVENESS: Not determined

PROJECT DURATION: 3 years

IMPLEMENTING AGENCY: World Bank

NATIONAL COORDINATING AGENCY: Ministry of the Environment

TECHNICAL REVIEW COMPLETED: YES _X_ NO ___

SECRETARIAT'S COMMENTS

"The Protection of the Ozone Layer through the Reduction of Consumption of Ozone Depleting Substances" project consisting of demonstration, investment, and institutional/management strengthening sub-projects was submitted for consideration of the Executive Committee at its Seventh Meeting. The Executive Committee approved three of the sub-projects.

1.	Recovery and Recycle of CFC-12 through a Network of Refrigeration Maintenance Shops	$400,000
2.	Implement Recovery and Recycling of CFC-12 at a Refrigerator Production Plant	$ 65,000
3.	Other Investment Projects in Key ODS-Using Sectors	$500,000

A revised version of the project proposal is submitted to the Eighth Meeting of the Executive Committee for its consideration. It consists of two sub-projects:

1.	Implementation of Government Actions	$ 400,000
2.	Introduction of ODS-Free Technologies in the Production of Domestic Refrigerators at Arcelik	$4,900,000

1. **The "Implementation of Government Actions" sub-project (US $400,000)** addresses institutional strengthening through:

- Creation of an Ozone Panel consisting of a joint industry-government panel;
- Finalization of the provisions for an ODS monitoring system;
- Policy and regulatory measures;
- Introduction of an ODS licensing system; and,
- Public and industry awareness activities.

In accordance with the "Guidelines for Preparation of Requests for Institutional Strengthening" (UNEP/OzL.Pro/ExCom/7/20, Annex II, pages 18-22), Turkey qualifies as a Category 2 medium consuming country with the funding level of up to US $300,000.

SECRETARIAT'S RECOMMENDATIONS

The proposal is recommended for approval and funding in the amount of US $300,000.

2. **"Introduction of ODS-Free Technologies in the Production of Domestic Refrigerators of Arcelik" (US $4,900,000)**

The "Introduction of ODS-free Technologies in the Production of Domestic Refrigerators of Arcelik" sub-project provides engineering assistance and training for the design, testing and introduction of non-CFC technologies in the manufacturing of domestic refrigerators, including motor/compressor, thermal foam insulation and refrigerant system. It consists of two sub-components, as follows:

1) Refrigeration Component

   a) Engineering Development
   b) Manufacturing

2) Foam Component

   a) Engineering Development
   b) Manufacturing

This project was submitted to the Executive Committee at its seventh meeting. Action was deferred pending results of the discussion of HFC-134a technology transfer at the upcoming OORG Refrigeration Working Group Meeting. The OORG/RWG recommended HFC-134a as an alternative to CFC-12 in domestic refrigeration in developing countries. Conversion to HFC-134a in a developing country is recommended with the first phase being to address the transfer and testing of technology for pilot production of new refrigerators. HFC-134a technology transfer should be within the framework of existing working relationships or agreements with technology suppliers established for this purpose.

The refrigeration component of the project provides for the acquisition of specific equipment and for engineering assistance and training for the design, testing and introduction of new HCF-134 refrigerator technology. Over a period of 2-4 years one manufacturing line at time will be converted to HFC-134A refrigerant design for full scale commercial production.

Introduction of CFC free insulation is the objective of the foam component of the project. The testing of refrigerator performance utilizing 50% less CFC-11 in foam insulation will be the step one with transition to complete elimination of CFC-11 in foam insulation at the later stage

It is estimated that the implementation of both these components will result in an average annual phase-out of 750 tonnes ODS.

The World Bank has made available to the Secretariat the Consultant's report on the two components of this sub-project (dated August 1992).

This report is very well documented. It provides equipment data sheets on each equipment item with source of supply, source of cost, delivery time, time from the order to operational status and justification of procurement.

The report also contains the schedule of implementation and disbursement with a quarterly breakdown of equipment, personnel and transfer technology cost.

The technical review of the project is completed and attached to the Project document.

This sub-project meets the requirements for funding under the Montreal Protocol. The incremental costs for this project are derived from those direct expenditures associated with the conversion from the production of CFC-12 to HFC-134a refrigerators. However, the technical review has identified some uncertainties arising from lack of information on the licensing agreements between Arcelik and international manufacturers.

SECRETARIAT'S RECOMMENDATIONS

(1) The project is recommended for Final Approval, and that requested funding of US $4,900,000 should be committed with the understanding that actual disbursement from the Fund would follow the disbursement schedule which will be defined by the World Bank during its appraisal of the Project.

(2) Recommendations regarding licensing as described in the technical review should be addressed as part of the appraisal of the project.