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

Seventeenth Meeting
Montreal, 26-28 July 1995

PROJECT PROPOSAL: SRI LANKA

This document includes Comments and Recommendations from the Fund Secretariat.

PROJECT EVALUATION SHEET

COUNTRY OR REGION:	Sri Lanka
PROJECT TITLE:	Elimination of CFCs 11 and 12 in three Domestic Refrigerator Manufacturers
BUDGET:	Capital Costs: US $1,124,500 [1] Operational Costs: US $73,852
INCREMENTAL COSTS:	US $911,458
ODS PHASE-OUT:	20.49 MT
COST EFFECTIVENESS[2]:	US $44.48 per kg. ODP saved
PROJECT DURATION:	1.5 years
IMPLEMENTING AGENCY:	UNDP
NATIONAL COORDINATING AGENCY:	Ministry of Transport, Environment & Women's Affairs
TECHNICAL REVIEW COMPLETED:	YES __X__ NO _____

SECRETARIAT'S COMMENTS

1. The project covers the conversion of both the refrigeration and foaming systems in three domestic refrigeration enterprises (AEC, REGNIS, GLACIO) to HFC-134a and HCFC-141b or cyclopentane. The amount of CFC to be phased out by this project is 20.49 metric tonnes per year. The project covers the conversion of the entire domestic refrigeration sub-sector in Sri Lanka.

2. Conversion to HCFC-141b will require high pressure foam machines, test runs and training. Conversion to cyclopentane requires equipment replacement, safety measures, test runs and training.

3. The refrigeration system conversion to HFC-134a will require re-design of the system, prototyping, optimization and pilot scale manufacturing and testing.

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[1] Including a 10 per cent contingency fee.

[2] Determined as the ratio of incremental costs, excluding safety-related costs, to the estimated annual savings of ODP ($/ODP kg.). For CFC-11 and CFC-12, ODS=ODP.

4. Incremental operating costs are associated with the raw material and HFC-134a compressors.

5. The incremental costs for GLACIO company are calculated on the basis of 51.1 per cent national ownership.

6. The Secretariat reviewed the project proposal to assess the eligibility and costs of requested equipment and other project components in the light of similar projects approved by the Executive Committee. The Secretariat discussed with UNDP the incrementality of cost components and their amount. It was agreed that replacement of capital equipment will be eliminated where retrofitting was possible. Cost of some items has been reduced on the basis of lower prices for the equipment available on the market. Some costs have been recognized as not eligible incremental costs. Project budget was reduced accordingly by US $137,500.

7. It should be noted that safety related costs in GLACIO company using cyclopentane foaming technology represent 34 per cent of incremental capital costs.

8. The revised cost effectiveness of the project is US $34.35/kg. ODP which is above the threshold established by the Executive Committee for domestic refrigeration sub-sector (US $13.76/kg. ODP).

9. Total consumption of ODS in Sri Lanka was estimated at 231 ODP tonnes for the year 1991. The Executive Committee reserved US $6,630,000 exclusively for allocation to projects from low-ODS consuming countries. However, the Executive Committee did not provide a definition of small-ODS consuming countries in terms of annual ODS consumption. The Executive Committee may wish to authorize the Sub-Committee on Project Review to consider this issue.

SECRETARIAT'S RECOMMENDATIONS

10. The Secretariat recommends that the project should be considered by the Project Review Sub-Committee.