



**United Nations
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Programme**



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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: BANGLADESH

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

PROJECT EVALUATION SHEET

COUNTRY OR REGION: Bangladesh

PROJECT TITLE: Conversion to CFC-free technology in the manufacture of aerosol products at Advanced Chemical Industries Ltd. (ACI)

BUDGET: Capital Costs: US \$404,800
Operational savings US \$(28,488)

INCREMENTAL COSTS: US \$376,312¹

ODS PHASE-OUT: 123.6 MT

COST EFFECTIVENESS²: US \$3.04. per kg. ODP saved

PROJECT DURATION: One year

IMPLEMENTING AGENCY: UNDP

NATIONAL COORDINATING AGENCY: Ministry of Environment and Forests

TECHNICAL REVIEW COMPLETED: YES X NO

SECRETARIAT'S COMMENTS

1. The project proposal is to replace the use of CFC with hydrocarbon propellant (HAP) in the manufacture of insecticides. The project will result in the elimination of 124 tonnes of CFC, and will completely eliminate the use of CFC in the aerosol sector in Bangladesh.
2. The project includes replacement of existing filling machine with an automatic filling machine (300 cc/min), a water bath for testing, installation of an open-air filling room, safety equipment and plant training.
3. A molecular sieve purification system to provide aerosol grade hydrocarbon is included.
4. Following discussions with UNDP, the costs associated with safety training, plant commissioning, start-up and supervision were adjusted to US \$20,000.

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.

5. Incremental operational savings have been calculated on the basis of the difference in costs per can when filling with CFC or HAPs. Annual operating saving were estimated at US \$21,668 and the net present value of US \$68,680 for a four-year period.

6. The adjusted cost-effectiveness value is US \$2.61/kg ODP.

SECRETARIAT'S RECOMMENDATIONS

7. The Secretariat recommends final approval of this project and funding in the amount of US \$322,920.

8. To approve US \$41,980 as support cost to UNDP.