



**United Nations
Environment
Programme**



Distr.
LIMITED

UNEP/OzL.Pro/ExCom/17/43/Add.1
4 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 PROPOSALS: PAKISTAN

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

PROJECT EVALUATION SHEET

COUNTRY OR REGION: Pakistan

PROJECT TITLE: a) Phase-out of CFC-11 in the manufacture of Flexible PUF Molded & Integral Skin at Master Group

BUDGET: b) Phase-out of CFC-11 in the manufacture of Molded and Rigid PUF at Razi Sons
a) Capital Costs US \$1,406,000¹
Operating Savings US (\$40,716)
b) Capital Costs: US \$483,000¹
Operating Costs: US \$33,060

INCREMENTAL COSTS: a) US \$1,365,284²
b) US \$ 529,060²

ODS PHASE-OUT: a) 205 MT
b) 60 MT

COST EFFECTIVENESS a) US \$6.66 per kg. ODP saved.
b) US \$8.60 per kg. ODP saved.

PROJECT DURATION: a) 1.5 years
b) 1.5 years

IMPLEMENTING AGENCY: World Bank

NATIONAL COORDINATING AGENCY: Environment and Urban Affairs Division

TECHNICAL REVIEW COMPLETED: YES X NO _____

SECRETARIAT'S COMMENTS

1. This project evaluation sheet covers two projects (Master Group and Razi Sons) under which foaming operations in several foam sub-sectors are undertaken. Master Group is a group of four companies manufacturing a wide range of foam products - flexible slabstock, molded, integral skin and rigid foams. Razi Sons manufactures molded and integral skin foam products.

¹ Includes 15% contingency.

² Including 15% contingency and 3% Financial Agents fee.

2. For the flexible slabstock foams, the companies will phase out CFC-11 by the use of methylene chloride as blowing agent. Thus, capital costs of conversion relate to provision of ventilation and cooling systems. For the molded foams, the companies will phase-out the use of CFC-11 by adopting all water blown technology. The phase-out of CFC-12 in the manufacture of integral skin will be through the use of HCFC-141b as substitute blowing agent. The capital costs of conversion are therefore related to the replacement of existing low pressure machines with high pressure machines.

3. A 15 per cent contingency was charged on capital costs. This was adjusted to 10 per cent, which is the norm for foam sector projects. The projects' cost effectiveness are within the sub-sector thresholds, except the integral skin (I.S.) foam operation of Master Group, where the cost-effectiveness amounts to US \$72.6/kg. ODP. Therefore, the integral skin component of Master Group is not eligible for funding, the amount of US \$181,526 in capital and operating costs should be deducted from project cost.

SECRETARIAT'S RECOMMENDATION

4. The Secretariat recommends approval of the projects at the following levels of funding:

Master Group: US \$1,247,330 (after adjusting for I.S. component)

Razi Sons: US \$ 508,060.