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

Twenty-second Meeting
Nairobi, 28-30 May 1997

Corrigendum

PROJECT PROPOSALS: TURKEY

Replace pages 2-4 of document UNEP/OzL.Pro/ExCom/22/55 with attached pages 2-4.

PROJECT EVALUATION SHEET
TURKEY

SECTOR: Foams ODS use in sector (1995): 500 ODP tonnes

Sub-sector cost-effectiveness thresholds: Flexible 6.23 US $/kg

Project Titles:
Suntas - Conversion from CFC-22 into Carbon Dioxide and Water for Flexible Molded Foam

Project Data	**Flexible**
	Suntas
ODS phase-out (ODP tonnes)	11.3
Proposed project duration (Yrs)	2
Incremental capital cost (US $)	138,158
Contingency (%)	10
Incremental operational cost (US $)	42,928
Total project cost (US $)	181,086
Local ownership (%)	100
Export component (%)	22[1]
Amount requested (US $) {Original}	178,032
{Revised}	181,086
Cost effectiveness (US $/kg)	16.34
National Coordinating Agency	Technology Development foundation of Turkey (TTGV)
Implementing Agency	World Bank
Technical review completed?	Yes

Secretariat's Recommendations:	
Amount recommended (US $)	148,613
Project impact (ODP tonnes)	10.07
Cost effectiveness (US $/kg)	13.89
Implementing Agency support cost (US $)	19,320
Total cost to Multilateral Fund (US $)	167,933

[1] Export to non-Article 5 countries constitutes less than 10%.

PROJECT DESCRIPTION

Suntas - Conversion from CFC-22 into Carbon Dioxide and Water for Flexible Molded Foam

1. Suntas manufactures MDI based flexible molded foam and TDI based flexible slabstock foam, both used in the production of mattresses and furniture. The MDI based flexible molded foam which is the subject of the project document, is produced by means of a Gusmer H-2000 spray foam dispenser and moulds of different shapes. This production started in 1992 and the baseline is therefore approximately 4 years old. CFC-11 is used as blowing agent, but due to both the concern of future CFC-11 supply and foreseen market trends, Suntas reduced the CFC-11 content in 1995 and has now started trials using both water and carbon dioxide/water. The outcome of these trials is said to be very promising and this project covers such conversion.

2. The project includes the adaptation of existing foam installation as well as the procurement of necessary additional equipment for operation with carbon dioxide and water, primarily polyol/carbon dioxide premixer, polyol and MDI temperature control systems and spray foam dispenser with sufficient capacity to handle the viscosity of the polyol. As the foreseen technology is rather new, Suntas requests technical assistance for both equipment selection and optimization of the formulation. Due to concern about future supply of CFC-11 as well as market trends, Suntas has already started the conversion and requests retroactive financing for part of the equipment.

   The project's capital costs include:

Description	Budget (US $)
Spray/pour foaming unit with variable ratio (US $28,528) temperature conditioning, heated hoses and spare parts	46,378
CO_2 frothing system including metering units for MDI and CO_2, and a premixer	26,100
Automated spray/pour system	27,500
Installation	5,000
Technology transfer, trials and training	30,000
Study tour	10,000

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The project was reviewed against the background of the company's baseline and work already done on the partial phaseout. The cost of a high pressure machine was not considered an incremental capital cost since this is already available (Gusmer H-200), however a retrofit cost of US $5,000 was to be provided, the selection of equipment for which the company is claiming US $5,000 should be covered under the technology transfer component of the project. Study tour is also ineligible since funds for training are provided. This activity could be covered under the training component of the project costs if the implementing agency considered it necessary. Agreed incremental capital cost to be paid retroactively should not attract the 10% contingency. On the basis of the above, the incremental capital costs would amount to US $105,685, which is made up of US $20,600 being the eligible cost of equipment already purchased and US $77,350 (plus US $ 7,735 contingency) being the eligible cost of equipment yet to be purchased and other eligible capital cost items.

2. The total project cost was determined to be US $148,613 including US $42,928 as incremental operational costs.

3. The CFC-11 consumption indicated in the project represents the average consumption for the years 1993-1995 instead of the three years preceding the project preparation (1994-1996) as required by Executive Committee Decision 17/10. The average CFC-11 consumption based on the data for 1994-1996 of 13 tonnes, 9.25 tonnes and 9.75 tonnes respectively should be 10.7 tonnes, instead of 11.3 as indicated. Therefore the calculation of the grant cost-effectiveness was based on CFC-11 consumption of 9.05 tonnes per year. Cost effectiveness: US $148,613/10,700 kg = US $13.89/kg.

Impact of Project on Meeting the 1999 Freeze

4. The project document indicates: Pending confirmation from the government of Turkey, the project is not required to meet the 1999 freeze for Turkey. The project is, however, part of the overall strategy of the accelerated phase-out schedule adopted by Turkey and consistent with the country programme.

RECOMMENDATION

1 The Fund Secretariat recommends blanket approval of the project at the funding level indicated in the table below.

Project Title	Project Cost US $	Support Cost US $	Implementing Agency
Suntas - Conversion from CFC-22 into Carbon Dioxide and Water for Flexible Molded Foam	148,613	19,320	World Bank