



**United Nations
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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-first Meeting
Geneva, 5-7 July 2000

PROJECT PROPOSAL: EGYPT

This document consists of the comments and recommendations from the Fund Secretariat on the following project proposal:

Solvent

- Conversion of metal cleaning processes from TCA solvent to TCE degreasing at Maasara Co. for engineering industries UNIDO

**PROJECT EVALUATION SHEET
EGYPT**

SECTOR: Solvent ODS use in sector (1997-199): 15.0 ODP tonnes

Sub-sector cost-effectiveness thresholds: TCA US \$38.50/kg

Project Titles:

- (a) Conversion of metal cleaning processes from TCA solvent to TCE degreasing at Maasara Co. for engineering industries

Project Data	TCA
	Maasara
Enterprise consumption (ODP tonnes)	10.70
Project impact (ODP tonnes)	10.70
Project duration (months)	18
Initial amount requested (US \$)	382,950
Final project cost (US \$):	
Incremental capital cost (a)	648,000
Contingency cost (b)	64,800
Incremental operating cost (c)	-417,850
Total project cost (a+b+c)	294,950
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US \$)	294,950
Cost effectiveness (US \$/kg.)	27.56
Counterpart funding confirmed?	
National coordinating agency	Egyptian Environmental Affairs Agency
Implementing agency	UNIDO

<i>Secretariat's Recommendations</i>	
Amount recommended (US \$)	294,950
Project impact (ODP tonnes)	10.70
Cost effectiveness (US \$/kg)	27.56
Implementing agency support cost (US \$)	38,344
Total cost to Multilateral Fund (US \$)	333,294

PROJECT DESCRIPTION

Conversion of metal cleaning processes from TCA solvent to TCE degreasing at Maasara Co. for Engineering Industries

1. Maasara consumed an average of 10.7 ODP tonnes of 1.1.1 trichloroethane (TCA) annually in metal-cleaning operations in the period 1997 to 1999. The phase out of this ozone depleting substance (ODS) will be accomplished by replacing the current TCA-based method with trichloroethylene (TCE) vapour degreasing technology for the cleaning of metals. TCE is 33% cheaper than TCA, and less solvent is required. The project will employ commercially available technology.
2. The project includes six small cleaning plants (total: US\$ 480,000) and one large cleaning plant (US\$ 120,000), all with TCE vapour degreasing, vacuum drying and solvent distillation. A solvent recovery unit for recycling of sump wastes (US\$ 35,000) and some safety protection accessories are included in the project budget. The project as submitted contained incremental operational savings of US\$ 417,850 over four years.
3. It is indicated by the implementing agency, UNIDO, that Egypt's remaining consumption in the solvent sector is only 15 ODP tonnes, accounted for by Massara, and one other project not yet presented.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

4. Two of the vapour degreasing machines are to replace cleaning now done manually in barrels. There is a technical upgrade associated with provision of these machines which needs to be taken account of in calculating incremental costs, according to the requirements of Decisions 25/48 and 26/37. Using the basis previously adopted in relevant solvent projects the incremental capital cost of these two machines was agreed with UNIDO as 50 percent of the proposed equipment costs. Other costs were agreed as proposed.

RECOMMENDATIONS

5. The Secretariat recommends blanket approval of the project with the level of funding and associated support cost indicated below:

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Conversion of metal cleaning processes from TCA solvent to TCE degreasing at Maasara Co. for engineering industries	294,950	38,344	UNIDO