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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-seventh Meeting
Montreal, 17-19 July 2002

PROJECT PROPOSAL: DPR KOREA

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

Solvent

• Conversion of cleaning processes from CTC to aqueous and solvent cleaning techniques at Huichon February 26 Factory (HUI)	UNIDO

PROJECT EVALUATION SHEET
KOREA, DPR

SECTOR: Solvent ODS use in sector (2000): 1,065 ODP tonnes

Sub-sector cost-effectiveness thresholds: n/a

Project Titles:

(a) Conversion of cleaning processes from CTC to aqueous and solvent cleaning techniques at Huichon February 26 Factory (HUI)

Project Data	**CTC**
	Huichon
Enterprise consumption (ODP tonnes)	209.00
Project impact (ODP tonnes)	209.00
Project duration (months)	30
Initial amount requested (US $)	2,024,006
Final project cost (US $):	
Incremental capital cost (a)	1,792,010
Contingency cost (b)	179,201
Incremental operating cost (c)	109,266
Total project cost (a+b+c)	2,080,477
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US $)	1,945,477
Cost effectiveness (US $/kg.)	9.31
Counterpart funding confirmed?	Yes
National coordinating agency	National Coordinating Committee for Environment
Implementing agency	UNIDO

Secretariat's Recommendations	
Amount recommended (US $)	
Project impact (ODP tonnes)	
Cost effectiveness (US $/kg)	
Implementing agency support cost (US $)	
Total cost to Multilateral Fund (US $)	

SECTOR BACKGROUND

1. The latest consumption reported in the solvent sector in DPR Korea is 1,065 ODP tonnes for the year 2000. Of this, the consumption of CTC is 1045 ODP tonnes. Three projects are under implementation with a phase out yet to be achieved of 266 ODP tonnes of CTC. The CTC consumption yet to be addressed in the solvent sector is 779 ODP tonnes.

PROJECT DESCRIPTION

2. This project was submitted by UNIDO to the 35th Meeting of the Executive Committee. The Executive Committee decided to defer consideration of the project and another similar project in DPR Korea, pending clarification, at the 36th Meeting of the cost-effectiveness as well as the total costs and the proportion of the costs to be borne by the recipient country for controlling impacts on environment, health and safety arising from the chosen technology. The two projects would be maintained in UNIDO's 2001 business plan (Decision 35/41). UNIDO revised and re-submitted the other project, for Gumsong Tractor Factory, to the 36th Meeting. It was approved. UNIDO has now revised and resubmitted the second deferred project, for the Huichon February 26 Factory (HUI).

3. As indicated in the Secretariat's previous evaluation sheet, HUI is a large state-owned enterprise. It produces machine tools and engine and other machinery parts for trucks. The enterprise consumed 209 ODP tonnes of CTC in the year 2000. The overall production at HUI for the year 2000 was 1.3 million large parts and over 18 million small parts such as piston rings.

4. UNIDO re-examined the technology choice in the light of the costs associated with meeting the very strict exposure limits imposed by the DPR Korea government which only apply to the use of TCE, selected for use in the original project. Following the investigations carried out by UNIDO and the discussions with the Secretariat concerning the project approved for GST, UNIDO has revised the project for HUI along similar lines. It is proposed that the CTC now in use be replaced mostly by cleaning technology using perchloroethylene (PER) as a solvent, with use of aqueous technology for one specialised application.

5. The main incremental capital cost items in the project as re-submitted are 19 closed cleaning machines for use with PER (US$ 1,642,800 after 50 percent deduction for technological upgrade), one water jet precision cleaner (US $67,100 after 50 percent deduction for technological upgrade) a solvent recovery unit (US$ 33,000), a storage tank (US$ 5,000) and safety equipment (US$12,000). Other costs include installation (US$ 102,000), testing (US$ 4,000) technical assistance (US $38,900) and transportation (US$ 21,000). The project has four-year incremental operating costs of US $109,266.

6. The enterprise has undertaken to provide funding for the safety, installation and local transport costs (US $135,000) included in the project budget. Additionally, in accordance with previous experience and practice in the solvent sector, UNIDO has calculated cleaning machine costs on the basis of a 50 percent allowance for technological upgrade (US $935,000) and this cost has not been included in the project budget.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

7. The Secretariat raised a number of technical issues with UNIDO including the production levels of the enterprises, choice of technology, the configuration of the cleaning machines and accessories and their cost. UNIDO provided the necessary clarifications, including quotations for cleaning machines and relevant accessories. Cleaning machine costs were revised downwards by a total of some US $79,000.

8. The Secretariat also drew UNIDO's attention to Decision 35/10(d). This decision indicates that, where equipment lower in cost than that specified in the project document is purchased when the project is implemented, and where the project document indicates that there is a counterpart contribution, the savings in equipment costs are to be shared between the enterprise and the Fund. UNIDO advised that DPRK has confirmed that the enterprise will make available the additional counterpart funding that is found to be necessary.

9. As revised by UNIDO and agreed by the Secretariat, the final project cost is US $1,954,477 which represents a cost effectiveness of US $9.31 per kg, compared to US $15.96 as originally submitted to the 35th Meeting. UNIDO has identified capital cost totalling US $1,070,000 which are proposed to be met by the enterprise. These costs are for technological upgrade associated with new equipment (including environmental, health and safety features), equipment installation, local transport and the provision of safety equipment.

RECOMMENDATION

10. The Executive Committee may wish to consider the project on the basis of the information provided above.

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