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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Twenty-third Meeting
Montreal, 12-14 November 1997

PROJECT PROPOSAL: PARAGUAY

This documents includes the comments and recommendations of the Fund Secretariat on the following project proposal:

Foam

- Umbrella - Conversion to CFC-free technology in the manufacture of polyurethane foam UNDP

PROJECT EVALUATION SHEET **PARAGUAY**

SECTOR: FOAMS ODS use in sector (1995): 50 ODP tonnes

Sub-sector cost-effectiveness thresholds: General US \$9.53/kg

Project Title:

UMBRELLA - Conversion to CFC-free technology in the manufacture of polyurethane foam (Superspuma Del Paraguay SAIC, Suenolar, La Suncena, Industrias Cel)

Project Data	General
	(Superspuma Del Paraguay SAIC, Suenolar, La Suncena, Industrias Cel)
ODS phase-out (ODP tonnes)	55.5
Proposed project duration (months)	24
Incremental capital cost (US \$)	242,000
- including contingency (%)	10
Incremental operational cost (US \$)	163,600
Total project cost (US \$)	405,600
Local ownership (%)	100
Export component (%)	
Amount requested (US \$) {Original}	405,600
{Revised}	
Cost effectiveness (US \$/kg)	7.31
National Coordinating Agency	Subsecretaria de Estado de Recursos Naturales y Medio Ambiente
Implementing Agency	UNDP
Technical review completed?	Yes

Secretariat's Recommendations:	
Amount recommended (US \$)	405,600
Project impact (ODP tonnes)	55.5
Cost effectiveness (US \$/kg)	7.31
Implementing Agency support cost (US \$)	52,728
Total cost to Multilateral Fund (US \$)	458,328

PROJECT DESCRIPTION

Foam Sector Profile

Sector ODS consumption (1995) reported in country programme	50 tonnes ODP
Most recent consumption data (1996)	56 tonnes ODP
ODS to be phased out in approved projects (as at July 1997)	0 tonnes ODP
ODS reported to have been phased out (as at July 1997)	0 tonnes ODP
ODS to be phased-out in current proposed projects	56 tonnes ODP
Latest (1995) CFC-11 consumption reported according to Art.7	No reported data

UMBRELLA - Conversion to CFC-free technology in the manufacture of polyurethane foam (Superspuma Del Paraguay SAIC, Suenolar, La Suncena, Industrias Cel)

1. This Umbrella project comprises four foam enterprises: Superspuma Del Paraguay SAIC; Suenolar; La Asuncena, and Industrias Cel, which will phaseout the use of CFC-11 in the manufacture of flexible slabstock polyurethane foam and rigid polyurethane foam. The different enterprises have the following discontinuous foam machines:

<u>Plant</u>	<u>Qty</u>	<u>Year</u>	<u>Make and Model</u>
Superspuma	1	1991	Zelaya-Zalazar
Suenolar	1	19991	Zelaya-Zalazar
La Asuncena	1	1984	Zelaya-Zalazar
Industrias Cel	1	unknown	unknown
Industrias Cel	1 pouring machine		AISTEC

2. The manufacturing operations are to be converted to methylene chloride in flexible PU foam, and HCFC-141b as an interim solution in rigid PU foam. The capital costs include: a ventilation unit at Superspuma (US \$30,000), Suenolar (US \$30,000), and La Asuncena (US \$30,000); and the retrofit of the Aistec dispenser (US \$5,000) and one high pressure spray foam dispenser (US \$35,000) at Industrias Cel. Trials, technology transfer and training for all companies amounts to US \$20,000, except for Industrias Cel where it amounts to US \$30,000. The contingency costs amount to US \$5,000 per company, except for Industrias Cel US \$7,000. Total incremental operating costs per company are expected: Superspuma US \$61,800; Suenolar US \$43,100; La Asuncena US \$33,000, and Industrias Cel US \$25,700.

Justification for the Use of HCFCs

3. The above enterprises have chosen interim use of HCFC-141b until a suitable final solution is available, since HCFC-141b offers the lowest investment costs.

Equipment or Components to be Destroyed or Rendered Unusable

4. For all the above projects, the fate of the replaced equipment was not indicated.

Impact of Project on 1999 Freeze

5. Since this project covers the entire foam industry for Paraguay, approval of the project will effectively accomplish the 1999 freeze on CFC consumption in the foam industry, through elimination of all CFC-11 usage.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. It was noted that the project would conclude the CFC phase-out in the foam sector. The prices of some of the chemicals appeared to be high, but this was explained as being due to the low level of use and the market. Costs of the project were agreed.

RECOMMENDATIONS

1. The Fund Secretariat recommends approval of the umbrella project with the funding levels and associated support cost as indicated below.

Project Title	Project Cost US \$	Support Cost US \$	Implementing Agency
UMBRELLA - Conversion to CFC-free technology in the manufacture of polyurethane foam (Superspuma Del Paraguay SAIC, Suenolar, La Suncena, Industrias Cel)	405,600	52,728	UNDP

2. The Executive Committee may wish to note that, the projects would phase out the use of CFCs in the foam sector in Paraguay and that the Government of Paraguay would not submit any further projects in the sector for funding by the Multilateral Fund.