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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-second Meeting
Ouagadougou, 6-8 December 2000

Corrigendum

PROJECT PROPOSALS: BRAZIL

Replace pages 3 and 4 with the following pages 3-4

Replace pages 9 and 10 with the following pages 9-10

**PROJECT EVALUATION SHEET
BRAZIL**

SECTOR: Foam ODS use in sector (1998): 2,286 ODP tonnes
Sub-sector cost-effectiveness thresholds: Polystyrene/polyethylene US \$8.22/kg
Rigid US \$7.83/kg

Project Titles:

- (a) Phaseout of CFC-11 by conversion to water-based technology in the manufacture of integral skin foams (shoesoles) at Megaflex
- (b) Phaseout of CFC-11 by conversion to water-blown technology in the manufacture of rigid intergal skin foam and to HCFC-141b for rigid polyurethane foam at Poliumetka
- (c) Conversion from CFC-12 to isobutane technology in the manufacture of extruded polyethylene foam at Thermo-flex
- (d) Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Frigs
- (e) Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Jose Sola

Project Data	Integral Skin	Multiple Subsector	Polystyrene/polyethylene	Rigid	
	Megaflex	Poliumetka	Thermo-flex	Frigs	Jose Sola
Enterprise consumption (ODP tonnes)	41.50	25.50	15.00	90.00	38.70
Project impact (ODP tonnes)	41.50	24.50	15.00	64.90	34.90
Project duration (months)	36	36	36	36	36
Initial amount requested (US \$)	211,068	136,183	123,300	368,332	150,369
Final project cost (US \$):					
Incremental capital cost (a)	72,000	57,500	126,000	260,000	70,000
Contingency cost (b)	7,200	5,750	12,600	26,000	7,000
Incremental operating cost (c)	126,368	72,933	3,400	25,056	73,369
Total project cost (a+b+c)	205,568	136,183	142,000	311,056	150,369
Local ownership (%)	100%	100%	100%	100%	100%
Export component (%)	0%	0%	0%	0%	0%
Amount requested (US \$)	205,568	136,183	123,300	311,056	150,369
Cost effectiveness (US \$/kg.)	4.95	5.61	8.22	4.79	4.31
Counterpart funding confirmed?	Yes				
National coordinating agency	PROZON				
Implementing agency	UNDP				

Secretariat's Recommendations					
Amount recommended (US \$)	205,568	136,183	123,300	311,056	150,369
Project impact (ODP tonnes)	41.50	24.50	15.00	64.90	34.90
Cost effectiveness (US \$/kg)	4.95	5.61	8.22	4.79	4.31
Implementing agency support cost (US \$)	26,724	17,704	16,029	40,437	19,548
Total cost to Multilateral Fund (US \$)	232,292	153,887	139,329	351,493	169,917

**PROJECT EVALUATION SHEET
BRAZIL**

SECTOR: Foam ODS use in sector (1998): 2,286 ODP tonnes

Sub-sector cost-effectiveness thresholds: Rigid US \$7.83/kg

Project Titles:

- (f) Phaseout of CFC-11 by conversion to water-blown technology in the manufacture of rigid foam at Plastiron
- (g) Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Refri-Leste
- (h) Phaseout of CFC-11 by conversion to water-blown technology in the manufacture of rigid foam at Rytpak
- (i) Conversion from CFC-11 to HCFC-141b and water technology in the manufacture of rigid polyurethane foam at Ser Therm
- (j) Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Termobras

Project Data	Rigid				
	Plastiron	Refri-Leste	Rytpak	Ser Therm	Termobras
Enterprise consumption (ODP tonnes)	32.40	30.00	27.00	72.00	77.00
Project impact (ODP tonnes)	32.40	27.00	27.00	57.10	60.90
Project duration (months)	36	36	36	36	36
Initial amount requested (US \$)	131,768	136,840	211,410	377,391	256,845
Final project cost (US \$):					
Incremental capital cost (a)	30,100	70,000	120,000	202,000	126,250
Contingency cost (b)	3,010	7,000	12,000	20,200	12,625
Incremental operating cost (c)	98,658	59,840	82,215	137,591	155,715
Total project cost (a+b+c)	131,768	136,840	214,215	359,791	294,590
Local ownership (%)	100%	100%	100%	100%	100%
Export component (%)	0%	0%	0%	0%	0%
Amount requested (US \$)	131,768	136,840	211,410	359,791	294,590
Cost effectiveness (US \$/kg.)	4.07	5.07	7.83	6.30	4.84
Counterpart funding confirmed?	Yes				
National coordinating agency	PROZON				
Implementing agency	UNDP				

Secretariat's Recommendations					
Amount recommended (US \$)	131,768	136,840	211,410	359,791	294,590
Project impact (ODP tonnes)	32.40	27.00	27.00	57.10	60.90
Cost effectiveness (US \$/kg)	4.07	5.07	7.83	6.30	4.84
Implementing agency support cost (US \$)	17,130	17,789	27,483	46,773	38,297
Total cost to Multilateral Fund (US \$)	148,898	154,629	238,893	406,564	332,887

Impact of the projects

14. When all the projects are implemented, 385.2 ODP tonnes will be phased out. This represents 3.3% of Brazil's 1999 consumption of Annex A Group I substances. There will be residual ODS consumption of 63.9 ODP tonnes due to the conversion to HCFC-141b.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The Fund Secretariat and UNDP discussed various issues relating to the projects, where necessary, including replacement or retrofit of foam equipment and related costs, cost-effectiveness etc. The eligible grants of all the projects, including that of Frigs, have been agreed and recommended for blanket approval. Where necessary, the project documents have been revised to reflect the agreed changes.

2. Frigs produces foam of density 42kg/ m³ for the insulating pipes and 50 kg/m³ for the sprayfoam which are already higher than the density ranges for HCFC-141b foams in the relevant applications as specified in the recommendations of the technical study on foam density adopted in Decision 31/44, to be used in the calculation of incremental operational costs. In this case, the Secretariat and UNDP have agreed on the incremental operational cost of the project which excludes the cost associated with density increases in both the pipe insulation and sprayfoam segments. The eligible grant of the project is as follows:

Incremental capital cost including 10% contingency	US \$286,000
Incremental operational cost	US \$25,056
Total project cost	<u>US \$311,056</u>

RECOMMENDATIONS

1. The Fund Secretariat recommends blanket approval of the Megaflex, Poliumetka, Thermo-flex, Frigs, Jose Sola, Plastiron, Refri-Leste, Rytpak, Ser Therm and Termobras projects with the levels of funding and associated support costs as indicated in the table below.

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Phaseout of CFC-11 by conversion to water-based technology in the manufacture of integral skin foams (shoesoles) at Megaflex	205,568	26,724	UNDP
(b)	Phaseout of CFC-11 by conversion to water-blown technology in the manufacture of rigid integral skin foam and to HCFC-141b for rigid polyurethane foam at Poliumetka	136,183	17,704	UNDP
(c)	Conversion from CFC-12 to isobutane technology in the manufacture of extruded polyethylene foam at Thermo-flex	123,300	16,029	UNDP
(d)	Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Frigs	311,056	40,437	UNDP
(e)	Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Jose Sola	150,369	19,548	UNDP
(f)	Phaseout of CFC-11 by conversion to water-blown technology in the manufacture of rigid foam at Plastiron	131,768	17,130	UNDP
(g)	Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Refri-Leste	136,840	17,789	UNDP
(h)	Phaseout of CFC-11 by conversion to water-blown technology in the manufacture of rigid foam at Rytpak	211,410	27,483	UNDP
(i)	Conversion from CFC-11 to HCFC-141b and water technology in the manufacture of rigid polyurethane foam at Ser Therm	359,791	46,773	UNDP
(j)	Conversion from CFC-11 to HCFC-141b technology in the manufacture of rigid polyurethane foam at Termobras	294,590	38,297	UNDP