



**United Nations
Environment
Programme**

Distr.
Limited

UNEP/OzL.Pro/ExCom/32/30/Colombia
10 November 2000

ORIGINAL: ENGLISH

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

PROJECT PROPOSALS: COLOMBIA

This document consist of the comments and recommendations of the Fund Secretariat on the following project proposals:

Foam:

- Conversion from CFC-11 to HCFC-141b and water based technology in the manufacture of various polyurethane foam applications at Olaflex with a technical assistance programme covering 10 small customers UNDP
- Conversion rom CFC-11 to HCFC-141b and water based technology in the manufacture of various polyurethane foam applications at 25 small enterprises centered around their systems house, Espumlatex, with a technical assistance program converyng distributors UNDP
- Retroactive funding for the conversion from CFC-11 to water-based technology in the manufacture of flexible molded and integral skin foam at Espumlatex-Promicolda UNDP

PROJECT EVALUATION SHEET COLOMBIA

SECTOR: Foam ODS use in sector (1999): 352.7 ODP tonnes

Sub-sector cost-effectiveness thresholds: Integral skin US \$16.86/kg
Multiple US \$13.85/kg*

Project Titles:

- (a) Retroactive funding for the conversion from CFC-11 to water-based technology in the manufacture of flexible molded and integral skin foam at Espumlatex-Promicolda
- (b) Conversion from CFC-11 to HCFC-141b and water based technology in the manufacture of various polyurethane foam applications at 25 small enterprises centered around their systems house, Espumlatex, with a technical assistance program covering distributors
- (c) Conversion from CFC-11 to HCFC-141b and water based technology in the manufacture of various polyurethane foam applications at Olaflex with a technical assistance programme covering 10 small customers

Project Data	Integral skin	Multiple-subsectors	
	Promicolda	Espumlatex	Olaflex
Enterprise consumption (ODP tonnes)	11.50	110.30	15.70
Project impact (ODP tonnes)	11.50	100.70	15.00
Project duration (months)		36	36
Initial amount requested (US \$)	193,890	620,748	191,833
Final project cost (US \$):			
Incremental capital cost (a)	217,936	846,550	212,000
Contingency cost (b)		84,655	21,200
Incremental operating cost (c)	150,284	138,503	123,647
Total project cost (a+b+c)	368,220	1,069,708	356,847
Local ownership (%)	100%	100%	100%
Export component (%)	0%	0%	0%
Amount requested (US \$)	0	0	191,833
Cost effectiveness (US \$/kg.)	16.86	10.46	11.76
Counterpart funding confirmed?		Yes	
National coordinating agency	Unidad Tecnica de Ozono - UTO		
Implementing agency	UNDP	UNDP	UNDP

<i>Secretariat's Recommendations</i>			
Amount recommended (US \$)			191,833
Project impact (ODP tonnes)			15.00
Cost effectiveness (US \$/kg)			11.76
Implementing agency support cost (US \$)			24,938
Total cost to Multilateral Fund (US \$)	Pending	Pending	216,771

* Both projects have three components each, 2 integral skin and one rigid foam components with composite cost-effectiveness threshold of US \$13.85/kg. All three components in each project are within the applicable sub-sector cost-effectiveness threshold.

PROJECT DESCRIPTION

Sector Background

- Latest available total ODS consumption (1999)	997.13	ODP tonnes
- Baseline consumption of Annex A Group I substances (CFCs)	2,208.20	ODP tonnes
- Consumption of Annex A Group I substances for the year 1999	986.16	ODP tonnes
- Baseline consumption of CFCs in foam sector	414.20	ODP tonnes
- Consumption of CFCs in foam sector in 1999	352.73	ODP tonnes
- Funds approved for investment projects in foam sector as of end of 1999	US \$2,391,808.00	
- Quantity of CFC to be phased out in investment projects in foam sector as of end of 1999	474.70	ODP tonnes
- Quantity of CFC to be phased out in foam sector as of end of 1999	190.00	ODP tonnes
- Funds approved for investment projects in the foam sector in the year 2000	US \$0	
- Quantity of CFC to be phased out in investment projects in foam sector approved in the year 2000	0	ODP tonnes

Background information

1. The two projects Espumlatex Systems House Group project and Espumlatex Promicolda were both submitted for consideration at the 31st Meeting. The Fund Secretariat reviewed and discussed the two projects with UNDP and on the basis of the discussion submitted them in documents UNEP/OzL.Pro/ExCom/31/31 to the 31st Meeting of the Executive Committee with recommendations for their approval. UNDP subsequently withdrew the projects before their consideration by the Sub-Committee on Project Review. Copies of document UNEP/OzL.Pro/ExCom/31/31 are available on request.

Espumlatex Systems House Group

2. As reported by the Secretariat in document UNEP/OzL.Pro/ExCom/31/31 (page 6) the original project of the systems house group included a request for an amount of US \$292,400 to be paid to seven distributors, two of which were Espumlatex and Espumlatex Promicolda, to assure supply of new systems to very small customers at competitive pricing. The amount requested was based on incremental operating cost calculated on the basis of CFC consumption of 68.1 tonnes of which 57.1 tonnes or 83% was accounted for by Espumlatex and its subsidiary company (Espumlatex Promicolda). No actual users of the systems were identified. During the discussion of this component of the project it was agreed that it was ineligible for funding. Consequently, UNDP revised the project document excluding the distributor component and submitted it for consideration of the 31st Meeting.

3. In the project document submitted for consideration at this 32nd Meeting for the Systems House Group UNDP has proposed a technical assistance component of US \$287,980 for the distributors who cover the very small and “spot” buyers. Since their usage of foam is very small, the very small and “spot” buyer enterprises do not have foam processing equipment. The document indicates that the distributors and the small customers have been identified and quantified locally, but no information on the identities of the beneficiaries is provided in the document. The technical assistance comprises:

10 distributor workshops at US \$5,000 per workshop	US \$50,000
274 trials at US \$500 each	US \$137,000
274 trial visits at US \$100 each	US \$27,400
274 verification visits at US \$100 each	US \$27,400
International supervision and technical support	US \$20,000

4. The two other components of the project, i.e. Espumlatex Systems House component and the component of the 25 downstream enterprises remain essentially the same as submitted to the 31st Meeting and will not require any change in the Secretariat’s recommendations on these two components of the project.

Espumlatex Promicolda (retroactive)

5. UNDP submitted the project to the 31st Meeting for retroactive funding of costs incurred when the company converted its flexible molded foam operation from CFC-11 based to water-blown technology in June 1994. The amount of US \$179,500 was requested. This included incremental capital cost and incremental operating cost of US \$40,000 and US \$139,500 respectively, with the following breakdown:

Alterations to premixing system	US \$15,000
Trials	US \$20,000
Verification testing	US \$5,000
Total	US \$40,000

6. The amount of US \$139,000 represented two-year NPV of incremental operating cost calculated based on the use of 11.5 tonnes of CFC-11 reported to have been phased out in 1994 and 10% foam density increase.

7. The Secretariat advised UNDP to request from the company the actual cost difference in the operational costs instead of a theoretical calculation of 2 years NPV based on consumption which was difficult to verify in view of the apparent inconsistencies in the consumption data reported by the company and those reported in the country programme for the sub-sector. Following discussion of the issues involved UNDP decided to request US \$40,000 capital costs and the project was recommended for approval as such.

8. UNDP has resubmitted the project to the 32nd Meeting in which the retroactive payment of US \$368,220 made up of US \$217,936 incremental capital cost and US \$150,284 incremental operational cost are being claimed. The breakdown is as follows:

Cost of 1 high pressure foam dispenser purchased to replace a low pressure dispenser	US \$217,936
Two-year NPV incremental operating cost calculated based on use of 11.5 tonnes CFC-11 and 13.6% density increase	US \$150,284

9. In its justification for requesting retroactive payment of US \$217,936 for the high pressure dispenser, UNDP maintained that at the time that the company converted its operation the cost of replacement of low pressure dispenser with high pressure dispenser was an eligible incremental cost.

10. It also indicated that not only the flexible molded foam production was converted as indicated in the first project document (submitted to the 31st Meeting), but also the integral skin production and that the information in the earlier project document was an error. Therefore the consumption of CFC-11 of 11.5 tonnes was for both flexible molded and integral skin foam. However the foam system usage remains the same as in the first document when the phase out was attributed to the production of molded foam alone.

11. Prior to submission of the project document the Secretariat received communication from the Government of Colombia which in effect validated the consumption data in the country programme.

Integral Skin Foam

Olaflex

12. Olaflex is a 100% Colombian company established in 1991. It is an importer and distributor of polyurethane chemicals, a manufacturer of systems for its own customers and manufacturer of polyurethane foam products, including flexible molded foam chair cushions, integral skin chair components, and rigid polyurethane sprayfoam and foam panels.

13. Olaflex consumed average (1997-1999) of 7.4 tonnes and 5.2 tonnes of CFC-11 in rigid and integral skin foam production respectively.

14. This project proposal deals with the phase out of the consumption of CFC-11 in the production activities of Olaflex as well as technical assistance for its downstream customers. The rigid foam production will be converted to HCFC-141b while the flexible molded and integral skin foam production will be converted to water-blown technology.

15. Olaflex operates an OMS C-60 low pressure dispenser for panel production and three self-made 6 kg/min low pressure sprayfoam dispensers. The integral skin and flexible molded foam are produced by hand mix.

16. The incremental capital cost includes the cost of replacement of the low pressure dispensers (US \$80,000) and the two low pressure sprayfoam dispensers at US \$15,000 each. Trials, technology transfer and training amount to US \$45,000. Incremental operating cost of US \$24,279 for the rigid foam conversion and US \$123,647 for the integral skin and flexible molded foam production are expected.

Technical assistance

17. The technical assistance programme covers 10 small-scale enterprises with CFC-11 consumption from 0.05–1.2 tonnes and a total of 3.2 tonnes. The characteristics of the enterprises are provided in the profile in table 1 below.

18. The total cost of the technical assistance programme is US \$47,000. This is made up of 2 workshops for US \$10,000, trials (US \$15,000), trial visits by the distributors (US \$1,000), verification visits (US \$1,000) and international supervision and technical support US \$20,000.

Table 1: Profile of the Small-scale Enterprises (Olaflex Group)

ENTERPRISE	SYSTEMS CONSUMPTION (t/y)	CFC USE (t/y)	EQUIPMENT	APPLICATION
Ind. DRANT	10	0.6	Canon LP	Automotive
INTERFILL	4	0.2	Handmix	Automotive
DONSOON	5	0.3	Handmix	Automotive
SUPERFILT	1.5	0.1	Handmix	Automotive
A&Z	1	0.05	Handmix	Automotive
SERIES	20	1.2	OMS LP	Furniture
PLASFIVI	5	0.3	Handmix	Automotive
EXICROM	3	0.2	Handmix	Furniture
MAGRU	1	0.05	Handmix	Furniture
UNICOR	2	0.1	Handmix	Several
TOTAL	52.5	3.1		

Justification for the use of HCFC-141b

19. UNDP indicated that the companies were briefed during appraisal prior to project preparation about available conversion technologies and their “techno-economic”, health and environmental impacts, and that the enterprises will be responsible for conversion to zero ODP technology. The companies selected the HCFC-141b option against the background of these discussions.

20. UNDP has also provided a letter from the Government of Colombia supporting the company’s choice of the HCFC-141b technology. The justification from UNDP and the Government’s letter are attached to this document.

Impact of the projects

21. A total of 115.7 ODP tonnes will be phased out when the Espumlatex and Olaflex projects are implemented. This will eliminate about 33% of Colombia's 1999 consumption of Annex A Group I substances. There will be residual ODS consumption of 10.3 ODP tonnes as a result of the use of HCFC-141b. Espumlatex Promicolda (retroactive funding) project does not impact Colombia's baseline consumption of Annex A CFCs since it was implemented in 1994

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS**COMMENTS**Espumlatex Systems House

1. Agreement has been reached between the Secretariat and UNDP on the eligible grants of the Espumlatex component and the customers component of the project for a total grant of US \$332,768. The breakdown is as follows:

Espumlatex	US \$16,500
Customer group	US \$316,268

2. The technical assistance component relating to the distributors are still under discussion and the results will be communicated to the Sub-Committee on Project Review.

Espumlatex Promicolda

3. No agreement was reached on the eligible cost of the retroactive funding.

Incremental capital cost

4. The replacement of low pressure dispensers with high pressure dispensers is not essential to the conversion from CFC to the substitute blowing agent. This has been confirmed by industry experts and has been applied to all similar projects.

5. UNDP was informed that, the fact that projects that included such costs were earlier approved based on technical information available to the Committee at that time does not make the cost eligible as the company did not have to replace its low pressure machine in order to effect its conversion.

6. Furthermore the project was not submitted at the time when the cost was approved (by default) as an eligible incremental cost. Therefore the amount of US \$217,936 is not an eligible incremental cost.

Incremental operational cost

7. UNDP has not provided actual incremental operational cost incurred by the company which has already been in its post-conversion operation for about 6 years. The theoretical calculation is based on data which are not supported by the technological information on the foam production in the document.

8. Since the project has been completed for longer than two years it was expected that the company would provide actual differences in operational cost. This would have provided a basis for comparison with the theoretical calculation and thus provided the Committee the basis for determining the eligible incremental operating cost to the company.

9. Based on the above, the Secretariat could not recommend the amount of US \$150,284 as eligible incremental operational cost.

Olaflex

10. The Secretariat and UNDP discussed the project and agreed on the eligible grant.

RECOMMENDATIONS

1. The Fund Secretariat recommends blanket approval of the Olaflex project with the funding level and associated support cost indicated below.

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	Retroactive funding for the conversion from CFC-11 to water-based technology in the manufacture of flexible molded and integral skin foam at Espumlatex-Promicolda		Pending	UNDP
(b)	Conversion from CFC-11 to HCFC-141b and water based technology in the manufacture of various polyurethane foam applications at 25 small enterprises centered around their systems house, Espumlatex, with a technical assistance program covering distributors		Pending	UNDP
(c)	Conversion from CFC-11 to HCFC-141b and water based technology in the manufacture of various polyurethane foam applications at Olaflex with a technical assistance programme covering 10 small customers	191,833	24,938	UNDP