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# 22286

## PROJECT COMPLETION REPORT

### SECTION 1: PROJECT DATA

1.1	Country:	Venezuela
1.2	Project number: (as per inventory)	VEN/FOA/22/INV/56 (MP/VEN/97/108)
1.3	Project title:	Phasing out ODS at Veniber C.A.
1.4	Date of approval of the project:	22th ExCom Meeting in May 1997
1.5	Percentage of national ownership:	100% private company
1.6	Implementing agency:	UNIDO
1.7	Local executing agency/ Financial intermediary:	N/A
1.8	National coordinating agency:	FONDOIN
1.9	Scheduled date of completion:	January 1999
1.10	Actual date of completion:	December 1998
1.11	Date of project completion report:	September 1999
1.12	Completion report done by: (Implementing agency/National agency)	UNIDO

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Reviewed by: E. Puerto-Ferre, SES/MPR

Date: September 1999  
Date: September 1999

**SECTION 2: EXECUTIVE SUMMARY**

Item	Plan/ Approved	Actual	National Sector Impact*	Comment
ODS phase-out (in ODP tonnes)	18	18	6.13%	
Budget and expenditure (US\$)	104,030	103,905	N/A	
Cost-effectiveness (in US\$/kg)	5.78	5.77	N/A	
Project Implementation: (in months)	18	20	N/A	
Project duration	18	20	N/A	
Start up of project activities at country level as stated by Article 5 Party concerned	June 20, 1997	July 1997	N/A	
Grant agreement submitted to beneficiary	-	July 1997	N/A	
Grant agreement signature	-	July 1997	N/A	
Bids prepared and requested	September 1997	October 1997	N/A	
Contracts awarded	March 1998	May 1998	N/A	
Equipment delivered	May 1998	November 1998	N/A	
Commissioning and trial runs	November 1998	February 1999	N/A	
Decommissioning and/or destruction of redundant baseline equipment	N.A.	N.A.	N/A	
Submission of completion report	December 1998	April 1999	N/A	

\* Expressed in percentage of National/Sector consumption.

Overall Assessment of the Project: *A brief description of no more than 300 words of the degree to which the project achieved its objective(s), major problems encountered and lessons learned.*

The project has been initiated and prepared in 1997 based on the Venezuelan Country Programme for the phase out of ozone depleting substances. Following approval by the ExCom the project was carried out in three stages:

1. Installation of the new high pressure machine in the process area.
2. Commissioning and training.
3. Prototyping and testing.

The chosen substitute was HCFC-141b and has totally replaced the originally applied foam blowing agent CFC-11.

The Venezuelan Authorities have checked the installation and certified that both the premisses and the facilities are free of hazards and danger for the staff and also have destroyed the ODS equipment. The project had been developed with out problems.

**SECTION 3(A): ODS PHASE OUT****Pre-Conversion**

3.1 Main lines of products manufactured: (as reported in the project document)

Production of insulating panels.

3.2 Annual production level: (as reported in project document)

18 MTs of CFC-11 were used to manufacture 25,000 m<sup>2</sup> of foam.

3.3 ODS Consumed: (as reported in project document)

ODS (1):	<b>CFC-11</b>	Quantity (ODP tonnes):	<b>18 MT</b>
ODS (2):	-	Quantity (ODP tonnes):	-
Total:	<b>CFC-11</b>	Quantity (ODP tonnes):	<b>18 MT</b>
National/sector impact:			<b>6.13%</b>

**Post-Conversion**

3.4 Year of project commissioned: **1998**

3.5 Year of commencement of new production: **1999**

3.6 The transition of ODS-based to Non-ODS-based production

Year	Units Produced with ODSs	ODSs Consumed (ODP tonnes)	Units Produced with Substitutes	Substitutes Consumed (tonnes)
1997*	25,000 m <sup>2</sup>	18 MT	-	-
1998	32,500 m <sup>2</sup>	23.4 MT		
Total	57,500 m <sup>2</sup>	41.4 MT		

\* Year of project approval

3.7 If there is a variance between the ODS phase-out target in the project document and the actual ODS phase-out, please explain.

N.A.

**SECTION 3(B): ODS PHASE OUT (for ODSs recovery and recycling projects)**

N.A.

**SECTION 4: TECHNOLOGY CHOICE**

ITEM	PRE-CONVERSION	POST-CONVERSION
4.1 <u>Technology Choice</u>		
Technology employed	CFC-11	HCFC-141b
Environmental impact	ODP = 1	ODP = 0,11
Determining factor for choice	Not inflammable or explosive materials. No space and conditions for use Pentane	The choice was accepted
Technology change after approval and reason for change	N.A.	N.A.
4.2 <u>Availability</u>	Commercially available	Commercially available
No. of months spent in acquiring the technology	The options were already known resulting in a short time to find the technology	
Reason for delay (if any)	N.A.	
4.3 <u>Safety</u> (where applicable)		
Standard applied		International standards were applied.
Certification by*		FONDOIN

\* *Please attach copies of certification*

4.4 Is there any problem encountered in the implementation of the replacement technology?  
If yes, please elaborate briefly.

No special problems were encountered.

## SECTION 5: BUDGET AND EXPENDITURES

This is a status report on project expenditures at the time of preparing the project completion report with the understanding that a full financial completion report will be prepared as a supplement once the accounts of the project are closed.

### 5.1 Summary

ITEM	PLAN/APPROVED (US\$)	EXPENDITURE (TO-DATE) (US\$)	DIFFERENCE/ COMMENT (US\$)
Incremental capital cost	44,000	90,534	(46,534)
Incremental operating cost	56,130	9,596	46,534
Contingency cost	3,900	3,775	125
Total	104,030	103,905	125
ODS phase-out (kg/ODP)	18,000	18,000	
Cost-effectiveness (\$/kg.)	5.78	5.77	

### 5.2 Budget and Expenditure on Incremental Capital Cost

ITEM*	APPROVED	EXPENDITURE	DIFFERENCE	REASON
General consultancy services.	15,000	3,909	11,091	
Equipment	29,000	90,400	(61,400)	
Incremental operating cost	56,130	9,596	46,534	
<b>Total Investment</b>	<b>104,030</b>	<b>103,905</b>	<b>-3,775</b>	

\*List of equipment approved in the project document (additional equipment should be so indicated).

### 5.3 Budget and Expenditure on Incremental Operating Cost

CFC-11 system				HCFC-141B system			
Chemical	wt -%	Price \$/kg	Cost \$/kg	Chemical	wt -%	Price \$/kg	Cost \$/kg
Polyol + MDI	87	3.11	2.71	Polyol + MDI	94	3.27	3.07
CFC-11	13	2.17	0.28	CFC-11	6	3.14	0.19
PU- cost/kg			2.99	PU- cost/kg			3.26
Consumption, kg/m <sup>2</sup> , average thickness 12.5 cm			5.0	Consumption, kg/m <sup>2</sup> , average thickness 12.5 cm			5.75
Total cost, \$/m <sup>2</sup>			10.98	Total cost, \$/m <sup>2</sup>			12.27
Cost difference, \$/m <sup>2</sup>			1.29				

Production of sandwich panels	Unit incremental cost	Total annual incremental cost
25,000 m <sup>2</sup> /year	US\$ 1.29	US\$ 32,259

### 5.4 Budget and Expenditure on Contingency Cost

CONTINGENCY FUNDS	ITEM(s)	EXPENDITURE
	Total	3,775
	Approved	3,900
	Difference	125



**SECTION 6: IMPLEMENTATION EFFICIENCY**

ITEM	AS PLANNED		DELAY/COMMENT
	YES	NO	
<u>6.1 Project Schedule</u>	X		
Project duration	X		
Start of project activities at country level as stated by Article 5 Party concerned	X		
Grant agreement submitted to beneficiary	-		N.A.
Grant agreement signature	-		N.A.
Bids prepared and requested	X		
Contracts awarded	X		
Equipment delivered	X		
Commissioning and trial runs	X		
Decommissioning and/or destruction of redundant baseline equipment	N.A.	N.A.	
Submission of completion report	X		
<u>6.2 Equipment</u>			
Quantity as planned	X		
Quality as planned	X		
Delays	no		
<u>6.3 Training</u>			
Quantity as planned	X		
Quality as specified	X		
Delays	no		

6.4 Please describe any major problems encountered in project implementation and what was the major cause of delay.

No problems encountered.

## SECTION 7: DISPOSAL OF ODS-BASED PRODUCTION EQUIPMENT

### 7.1 List of equipment rendered unusable

LIST OF EQUIPMENT RENDERED UNUSABLE (The Baseline)*		DISPOSAL IMPLEMENTED			
Name of Equipment	Description **	Method of Disposal	Date of Disposal	Implementer	Certified By
N.A.	N.A.	-	-	-	-

\* *List of equipment rendered unusable in the project document*

\*\* *Description should include Model No. And Serial No.*

7.2 Describe briefly the process of destruction and attach copies of certification of destruction.

Equipment available before the conversion is being used following the conversion.

## SECTION 8: OVERALL ASSESSMENT OF PROJECT

Using three quantifiable indicators, namely ODS phase-out (plan v. actual) cost and speed of completion (plan v. actual), give an overall assessment of the project in the scale below.

- { } Highly satisfactory, more than planned
- {X} Satisfactory, as planned
- { } Satisfactory, though not as planned
- { } Unsatisfactory, less than planned
- { } Unacceptable

Comments from Government:

## SECTION 9: LESSONS LEARNT

State any lessons that can be drawn from this project that will benefit future projects.