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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Thirty-fifth Meeting
Montreal, 5-7 December 2001

PROJECT PROPOSALS: MEXICO

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

Halon:

- National halon management and banking program UNDP

Foam:

- Foam sector ODS phaseout plan UNDP

**PROJECT EVALUATION SHEET
MEXICO**

SECTOR: Halon ODS use in sector (1999): 230 ODP tonnes

Sub-sector cost-effectiveness thresholds: N/a

Project Titles:

(a) National halon management and banking program

Project Data	Banking
Enterprise consumption (ODP tonnes)	
Project impact (ODP tonnes)	
Project duration (months)	36
Initial amount requested (US \$)	500,000
Final project cost (US \$):	
Incremental capital cost (a)	472,000
Contingency cost (b)	28,000
Incremental operating cost (c)	
Total project cost (a+b+c)	500,000
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US \$)	500,000
Cost effectiveness (US \$/kg.)	
Counterpart funding confirmed?	
National coordinating agency	SEMARNAT
Implementing agency	UNDP

Secretariat's Recommendations	
Amount recommended (US \$)	500,000
Project impact (ODP tonnes)	
Cost effectiveness (US \$/kg)	
Implementing agency support cost (US \$)	65,000
Total cost to Multilateral Fund (US \$)	565,000

PROJECT DESCRIPTION

1. The project incorporates the establishment of a National Halon Management and Banking operation in Mexico to provide a basis by which internal access to halon can be made available to assist towards reducing the dependence on importation and making available recycled halon locally and internationally for servicing existing systems and future critical use applications.
2. Since before 1999, Mexico has encouraged the phase out of halons through voluntary agreements with the importers and the fire protection industry association. Mexico implemented a quota system and companies such as Lastiri ceased importing halon chemicals in 1996 under the system. CAISA has been the only licensed halon importer since 1996 with virtually no installation of halon since 1998.
3. The project would develop a database of halon users and protected facilities. A halon advisory group set up to assist in undertaking various assessment activities of the halon banking facility. Detailed halon banking operating requirements would be introduced and supported by technical training aspects for both halon bank operators and major halon users. Public and technical education awareness programmes that focus on Mexico's overall ozone and halon phase out strategy and associated legislation controls would also form a key part of the project.
4. The project includes costs for the provision of reclamation facilities to purify halon 1211 and halon 1301, recovery and recycling machines, testing equipment, storage vessels, and contingency costs at a rate of 10 per cent of equipment costs. The costs also cover the functional operation of the Bank, the translation of technical documentation, and provisions for initial start up costs associated with the halon advisory group, database, and outreach activities.

Halon Sector Consumption and Installed Capacity

5. Mexico's 1999 consumption of halon was 230.4 ODP tonnes. The baseline consumption (1995-1997) provided pursuant to Article 7 was 125 ODP tonnes including 108 ODP tonnes of halon 1211 and 17 ODP tonnes of halon 1301.
6. The Mexico Halon Strategy Document provides background information on the fire protection sector in Mexico, as well as general halon consumption details. Mexico does not produce halons. Based on the last 12 years of data, a total of 2,768.3 metric tonnes of halon 1211 and 482 metric tonnes of halon 1301 were imported into Mexico. The data used for this estimate include data on import quotas matched against actual bulk import figures to which was added a 10 per cent factor for separate shipments of halon fire equipment. Since 1995, all data were from annual consumption reports.
7. The estimated level of the original installed inventory of halon 1301 in Mexico was estimated based on a profile provided by industry, i.e., utilities, banks, defence, etc. The installed capacity was estimated at 279 metric tonnes of halon 1301 and 1,010 metric tonnes of halon 1211.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

8. Legislation was prepared with bans on the importation of virgin halon and halon fire extinguishers starting in 2000 to be applied from 1 January 2001. However, the project document indicates that the legislation was deferred pending the start up of the programme with financing from the Multilateral Fund and the revision of phase out date. The strategy proposed in this document however would enable the level of imports to be frozen at the base year level of consumption from 2002 and the ban would occur by January 2005.

9. The request complies with Decision 18/22 for countries with a medium-level of installed capacity.

RECOMMENDATIONS

10. This project is recommended for blanket approval in the amount as indicated below with the understanding that this will be the final halon project for Mexico and that the consumption in Mexico will cease in January 2005.

	Project Title	Project Funding (US\$)	Support Cost (US\$)	Implementing Agency
(a)	National halon management and banking program	500,000	65,000	UNDP

**PROJECT EVALUATION SHEET
MEXICO**

SECTOR: Foam ODS use in sector (2000): 400 ODP tonnes

Sub-sector cost-effectiveness thresholds: Integral skin US \$16.86/kg
Rigid US \$7.83/kg

Project Titles:

(a) Foam sector ODS phaseout plan

Project Data	Multiple-subsectors
Enterprise consumption (ODP tonnes)	592.30
Project impact (ODP tonnes)	0.00
Project duration (months)	60
Initial amount requested (US \$)	843,150
Final project cost (US \$):	
Incremental capital cost (a)	3,293,500
Contingency cost (b)	329,350
Incremental operating cost (c)	0
Total project cost (a+b+c)	3,622,850
Local ownership (%)	100%
Export component (%)	0%
Amount requested (US \$)	
Cost effectiveness (US \$/kg.)	0.00
Counterpart funding confirmed?	
National coordinating agency	National institute of Ecology (INE)
Implementing agency	UNDP

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

PROJECT DESCRIPTION

Sector background

- Latest available total ODS consumption (2000)	5,455.00 ODP tonnes
- Baseline consumption of Annex A Group I substances (CFCs)	4,624.90 ODP tonnes
- Consumption of Annex A Group I substances for the year 2000	3,059.5 ODP tonnes
- Baseline consumption of CFCs in foam sector	1,017.00
- Consumption of CFCs in foam sector in 2000	400.00 ODP tonnes
- Funds approved for investment projects in foam sector as of end of July 2001	US \$9,846,490
- Quantity of CFC to be phased out in approved investment projects in foam sector as of end of July 2001	1,464.70 ODP tonnes
- Quantity of CFC phased out from approved investment projects in the foam sector as of end of July 2001 (including CFC phased out in projects not yet reported as completed)	1,191.20 ODP tonnes
- Quantity of CFCs in approved ongoing investment projects in the foam sector as of end of July 2001	69.00 ODP tonnes
- Quantity of CFCs remaining to be phased out in the foam sector as of end of July 2001	331.00 ODP tonnes
- Quantity of CFCs to be phased out in investment projects being submitted to the 35 th ExCom (December 2001).	145.00 ODP tonnes
- Quantity of CFCs remaining to be phased out in the foam sector by the end of 2001	186.00 ODP tonnes

11. The amount of CFC remaining to be phased out in the foam sector based on the data submitted by the Government is 186 tonnes. However, surveys carried out by UNDP are reported to have identified additional CFC consumers in the sector, mainly SMEs accounting for additional estimated consumption of about 540 tonnes.

Foam Sector Phase-out (Terminal)

Background Information

12. This version of the project proposal for the terminal ODS phase-out in the foam sector in Mexico was originally submitted to the 32nd Meeting in fulfilment of the Executive Committee Decision 30/52 which enjoined the implementing agency (UNDP) to try and find a way forward for phasing out the remaining ODS in the foam sector in Mexico, which respected both the rules of the Multilateral Fund and the unique situation in Mexico. This decision was in reaction to the project proposal first submitted to the 30th Meeting for the same purpose which was not seen by the Committee to be consistent with the rules of the Multilateral Fund.

13. A review of the project proposal submitted to the 32nd Meeting showed significant data discrepancies in the remaining CFC-11 consumption in Mexico. Consequently, in Decision 32/54 the Committee decided:

- (a) To defer the project;
- (b) To retain the project in UNDP's 2000 business plan;
- (c) To request concrete assurances that the project would yield a sustainable, permanent reduction in the national aggregate consumption of CFCs.

14. Following surveys conducted by UNDP in cooperation with the Government of Mexico, the project proposal was revised and resubmitted to the 33rd Meeting. The Secretariat and UNDP discussed the technical and policy issues involved which resulted in a recommendation to the Executive Committee on the way forward to phase out ODS from the foam sector in Mexico. However, while considering the recommendations of the Secretariat the Executive Committee reiterated its request "for concrete assurances that the project would yield a sustainable, permanent reduction in the national aggregate consumption of CFCs." Since the Government of Mexico was not in a position to meet this request at that meeting the consideration of the project was further deferred.

15. The Secretariat received a letter from the Government of Mexico on 13 July 2001 in which it reiterated its disagreement to the application of the concept of aggregate national consumption to the Mexico foam project and requested the Secretariat to explain why the foam sector project was not placed on the agenda for consideration by the 34th Meeting of the Executive Committee. In its response the Secretariat gave the history of the development and consideration of the Mexico Foam Sector Plan which has been open and straightforward. It explained with regard to the 34th Meeting that because the requirements of the Executive Committee indicated in Decision 32/54 (c) and 33/48 (d) had not been met, the Secretariat had no basis for including the project on the agenda of the Executive Committee Meeting or the Sub-Committee on Project Review. The Secretariat further advised the Government of Mexico to consider revisiting the issue of the national aggregate consumption having now established that its year 2000 CFC consumption increased by smaller amount than had previously been estimated.

16. The Secretariat subsequently received a letter from the Government of Mexico on 8 November 2001 in which the Government indicated its willingness to provide the assurances requested by the Executive Committee. Consequently, the project is resubmitted for consideration of the 35th Meeting in line with Decision 34/21 and at the request of the Government of Mexico. The letter of the Government of Mexico is attached (Annex I).

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

17. The various documents on the project can be found as UNEP/OzL.Pro/ExCom/30/20, UNEP/OzL.Pro/ExCom/32/30/Mexico, UNEP/OzL.Pro/ExCom/33/24/Mexico and will be made available on request. Relevant sections of the project documents have been revised and presented below to facilitate consideration of the project.

Update on Mexico Foam Sector Phase-out project proposal

18. The full text of the project description as well as the Secretariat's comments and recommendations which form the basis of the comments and recommendations below can be found in UNEP/OzL.Pro/ExCom/32/24/Mexico pages 3-9.

19. The table below shows the revised phase-out plan based on the plan originally proposed by UNDP and presented to the 32nd Meeting.

	Year					Total
	2002	2003	2004	2005	2006	
Project Cost US \$:	666,500	805,000	782,000	780,000	--	3,033,500
Project Management Costs US \$:	100,00	50,000	50,000	50,000	10,000	260,000
Contingencies (10%) US \$:	76,650	85,500	83,200	83,000	1,000	329,350
Total Project Costs US \$:	843,150	940,500	915,200	913,000	11,000	3,622,850
ODP Phase-out per year (tonnes):		108.5	185.0	180.4	69.5	543.4
Remaining ODP in Sector (tonnes):	543.4	434.9	249.9	69.5	0	0

20. On the basis of the results of the survey conducted by UNDP the Secretariat drew attention of the Committee to the prospects that existed in Mexico for achieving an earlier completion of the project at much reduced cost. However, both the Secretariat and UNDP recognized the need in the context of the Mexican situation to initiate action to phase out ODS while at the same time UNDP and the Government of Mexico continued to conduct surveys to identify the eligible enterprises for further assistance to be determined on the basis of actual needs.

21. The Secretariat and UNDP agreed to recommend to the Executive Committee to provide initial grant of US \$833,150 to enable UNDP and the Government of Mexico to start work on the programme.

22. On the strength of the letter from the Government of Mexico mentioned above the following recommendations are made for consideration of the project. The project is submitted for individual consideration on account of the decisions cited above.

RECOMMENDATIONS

23. Taking into consideration the Secretariat's comments in paragraphs 1-8 of document UNEP/OzL.Pro/ExCom/32/24, which are reproduced in Annex II, the Executive Committee may wish to:

- (a) Note that the Government of Mexico had provided a commitment that implementation of its Foam Sector Phase-out Plan would yield a sustained permanent reduction of 543.4 ODP tonnes (subject to confirmation by the audits indicated below) from Mexico's 2000 national aggregate CFC consumption of 3,059.5 ODP tonnes;
- (b) Approve in principle the Foam Sector Phase-out Plan and allocate the amount of US \$833,150 including US \$100,000 as project management funding on condition that UNDP and the Government of Mexico will:
 - (i) implement an initial phase of the plan for enterprises which should be identified through an audit of their baseline conditions. In implementing this initial phase, while exercising flexibility, UNDP and the Government should take due care to ensure that funding of the enterprises selected is consistent with the policies and guidelines of the Multilateral Fund;
 - (ii) prepare final audit(s) of the remaining enterprises and on the basis of such audit or audits, to prepare the final phase of the plan, including incremental costs taking into account the comments provided in Annex II to this document, for submission to the Executive Committee not later than its 38th Meeting;
- (c) Request UNDP to reflect fully the amount of US \$833,150 approved at this meeting in the final plan to be prepared and include a report on the status of implementation of this initial phase of the plan;
- (d) Request UNDP to communicate to the Secretariat the results of the audits to be conducted and all other relevant information used to determine the eligible costs of the plan.



**INTERNATIONAL AFFAIRS
COORDINATION UNIT**

**SECRETARIAT OF THE
ENVIRONMENT AND
NATURAL RESOURCES**

UCAI/4383/2001

Mexico City, November 8, 2001

**DR. OMAR E. EL-ARINI
CHIEF OFFICER
SECRETARIAT OF THE MULTILATERAL FUND FOR THE
MONTREAL PROTOCOL**

Dear Dr. El-Arini,

I refer to your communication of August 7, 2001 regarding the situation of Mexico in the Multilateral Fund and specifically to the Sectoral Foam Project.

In this regard, I would like to inform you that we have studied the situation carefully, in compliance with Decisions 32/54, 33/48 and 34/21, which indicate that the Sectoral Foam Project is subject only to compliance with aggregate national consumption. We wish to indicate that the Government of Mexico, through this Secretariat, will ensure and guarantee sustainable, permanent reduction of national consumption by the figures indicated in the aforementioned project and in accordance with the timeline for execution indicated in said project.

Furthermore, the Undersecretariat for Management of Environmental Protection of this Secretariat, as an operational body, shall be responsible for ensuring compliance with the rules for national reduction, applying the necessary regulatory measures as well as restrictions on imports and production to ensure that Mexico meets this commitment.

We therefore request that the Executive Committee be informed of this major decision by the Government of Mexico, and further request that this communication be distributed to the members of the Executive Committee, especially to the Chair of the Projects Subcommittee (Japan) and the members of the Subcommittee, for the project to be officially approved and for Mexico to continue with the implementation of the accelerated timeline.

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I await a prompt reply from you on this matter and take this opportunity to extend my best regards.

OLGA OJEDA CÁRDENAS
UNIT HEAD

C.c.. Víctor Lichtinger. Secretary of the Environment and Natural Resources. For information.
Raúl Arriaga Becerra. Undersecretary for Management of Environmental Protection.
Jorge Bolaños Cacho. Director-General for Integrated Pollutant Management.
Ma. De Lourdes Aranda Bezaury. Director-General for Global Affairs. SER. Focus Point for the Montreal Protocol.
Suely Carvalho. Officer in Charge. Montreal Protocol. UNEP.

OOC/AAH/MCBS

ANNEX II**Paragraphs 1 to 8 of document UNEP/OzL.Pro/ExCom/33/24/Mexico**

1. The Secretariat reviewed the revised document as well as the copies of the completed questionnaires from the audit provided with the project document and made the following observations:

- (a) The original concept of calculating the cost of the phase-out plan discussed between UNDP and the Secretariat prior to the 32nd Meeting was not supported by the information obtained through the audit of the sample of the enterprises and was therefore not in the interest of the Multilateral Fund to be further pursued;
- (b) With regard to the CFC-11 and HCFC-141b reported to have been preblended together by a systems house for use by some enterprises, advice received from all the industry experts consulted by the Secretariat was that while feasible, there was no technical difference between using 70% HCFC-141b with 30% CFC-11 and using 100% HCFC-141b. It was rarely an industry practice, and unless dictated by economic motive or other production exigencies there was no technical justification for it because HCFC-141b was a virtual drop-in for CFC-11 for the main application i.e. spray foam using the type of machines predominantly used by the enterprises, i.e. Gusmer FF-1600. UNDP stressed that this approach was adopted mainly by the systems house (Eiffel) due to high fluctuations in the supply and prices of the two chemicals in Mexico;
- (c) Although the results of the audit were intended to provide a sample of the sector this did not appear to be the case. The Secretariat's analysis of the information provided in the questionnaires indicated that the amount of US \$3,632,850 would likely be higher than the eligible costs under the policies and guidelines of the Fund, as follows;
 - (i) Experience from previously approved projects showed that Mexican spray foam enterprises predominantly used Gusmer dispensers which required only minor, inexpensive retrofits. The audit results confirmed this, showing that all the sprayfoam manufacturers in the sample used Gusmer sprayfoam machines and 41 of the total of 66 machines used by the 42 enterprises for all applications were Gusmer machines;
 - (ii) 22 of the 66 foam dispensers including 9 of 13 low pressure dispensers were procured after 25 July 1995 mostly in 1996-1999. The cost of replacement of such machines would not be eligible;
 - (iii) 25 of the 66 foam dispensers, including three of four low pressure machines eligible for replacement, were 15-28 years old. Under existing rules replacement of such old machines would be subject to discount on account of age;

- (iv) At least four of the 42 companies audited appeared to have been established after 25 July 1995.

2. On account of the observations made in paragraph 2 above and extrapolation that could be made from the results of the audit it could be concluded that the methodology for costing the project proposed in the phase-out plan based on the defined categories and standard costs based on ratio of equipment replacement to retrofit and/or cost of new equipment was not accurate and could result in the funding of ineligible costs. Also, implementation of the project based strictly on such categorization could potentially restrict expeditious phase-out, especially in the sprayfoam sub-sector that would not require substantial external input in terms of capital expenditure or technology transfer.

3. Additionally, the four year period for phasing out CFCs of the sprayfoam could restrict the ability of enterprises to phase-out earlier, since the issue is not the market availability of HCFC-141b systems, but the apparent reluctance of the systems houses to supply HCFC-141b systems to a certain category of foam producers, including sprayfoam producers, which they consider may not be capable of using the systems and so required assistance from the Multilateral Fund.

4. Normally, systems suppliers are obliged to provide directions to their customers on the use of their systems. In the sprayfoam application where the HCFC-141b is a virtual drop-in and where the operators predominantly use Gusmer machines which require simple inexpensive retrofit, eligible enterprises should be encouraged to phase-out if they are capable, willing or ready to do so. In this situation and subject to accurate and verified audits, their incremental capital cost could be paid retroactively on the basis of agreed retrofit or replacement costs for the relevant application. This could take place during the implementation of subsequent tranches.

5. The audit conducted has demonstrated that such audits are feasible and are a more realistic means of identifying eligible costs. Since all the enterprises are grouped around the six systems houses (already funded by the Multilateral Fund) it should be possible to conduct further audits for the remaining 178 enterprises without much difficulty or delay provided funds are made available.

6. The estimated levels of funding for shoe sole and integral skin foam applications appear reliable based on previous experience, and the Government could initiate implementation of the phase-out in these sub-sectors if it so wished.

7. Given the possible reduction in the incremental cost of the project, the total of US \$260,000 (US \$286,000 including contingency) proposed for project management funding will also need to be reviewed when preparing the final plan.

8. UNDP is requesting a first tranche of US \$843,150, which includes US \$100,000 (plus 10% contingency for a total of US \$110,000) as project management costs. The Executive Committee may wish to advance this amount (excluding the 10% contingency of US \$10,000 charged on the project management cost) on the basis that UNDP will:

- (a) further develop and implement an initial phase of the phase-out of ODS of enterprises that have been identified through an audit;
- (b) conduct further audit or audits of the remaining enterprises;
- (c) On the basis of the audit:
 - (i) report to the Executive Committee at its 36th Meeting in 2002 on the progress of implementation of this first tranche;
 - (ii) submit the final plan for the phase-out of ODS use of the remaining enterprises, bearing in mind the need to achieve the phase-out in a more expeditious manner. UNDP may, however, submit this plan earlier than the 36th Meeting.

This will ensure that the Committee receives a plan that could assure a reasonably accurate level of Multilateral Fund assistance without delaying the desire of the Mexican Government to phase-out the remaining CFC consumption in the foam sector.
