



**United Nations  
Environment  
Programme**

Distr.  
LIMITED

UNEP/OzL.Pro/ExCom/37/48  
20 June 2002

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Thirty-seventh Meeting  
Montreal, 17-19 July 2002

### **PROJECT PROPOSAL: MEXICO**

This document consists of the comments and recommendation of the Fund Secretariat on the following project proposal:

#### Sterilants

- Sterilization group project to replace CFC-12 technology-based sterilization equipment by alternative technologies in the hospital medical sterilization sector

World Bank

**PROJECT EVALUATION SHEET  
MEXICO**

SECTOR: Sterilants ODS use in sector: n/a

Sub-sector cost-effectiveness thresholds: n/a

**Project Titles:**

- (a) Sterilization group project to replace CFC-12 technology-based sterilization equipment by alternative technologies in the hospital medical sterilization sector

Project Data	Ethylene oxide
Enterprise consumption (ODP tonnes)	15.40
Project impact (ODP tonnes)	15.40
Project duration (months)	24
Initial amount requested (US \$)	589,404
Final project cost (US \$):	
Incremental capital cost (a)	535,822
Contingency cost (b)	53,582
Incremental operating cost (c)	
Total project cost (a+b+c)	589,404
Local ownership (%)	100%
Export component (%)	0%
<b>Amount requested (US \$)</b>	<b>589,404</b>
Cost effectiveness (US \$/kg.)	38.30
Counterpart funding confirmed?	
National coordinating agency	NAFIN
Implementing agency	World Bank

<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 \$)	

## **SECTOR BACKGROUND**

1. The sterilants sector uses CFC-12 only, as part of a pre-blended mixture of 88% CFC-12 and 12% ethylene oxide (known as 12/88) used in sterilising machines. Mexico has not reported any separate consumption of CFC-12 in the sterilants sector in its annual reports on implementation of its country programme. The overall reported consumption of CFC-12 in 2000 was 2,350 ODP tonnes. In the project document it is indicated that consumption in the sterilants sector for the year 2001 is 40 ODP tonnes of CFC-12. The same document also reports Mexico's total CFC-12 consumption in 2001 as 1,885.6 ODP tonnes.

## **PROJECT DESCRIPTION**

Sterilisation Group Project to replace CFC-12 technology-based sterilisation equipment by alternative technologies in the hospital Medical Sterilisation Sector in Mexico.

2. The objective of the project is to provide incentives to eliminate the consumption of CFC-12 for sterilisation purposes at public hospitals in Mexico. The project will phase out an estimated 15.4 ODP tons of CFC-12 consumed by 14 sterilisation machines identified as the only consumers in public hospitals in Mexico. The project document indicates that Mexico is committed to phasing out the use of ODS sterilants in all hospitals (public and private) and will enact regulations to prevent the import or use of CFC-12/EO sterilising machines. Any remaining use of CFCs for sterilisation in hospitals will be converted without additional assistance from the Fund

3. The project has been formulated as a terminal umbrella project. Incremental capital cost has been calculated on the basis of the weighted average capital cost of the four replacement technologies indicated as being acceptable to the Government of Mexico. The amount to be allocated for each piece of equipment to be replaced is US\$ 38,273, giving a total incremental capital cost of US \$589,404 for 14 units, after addition of contingency costs of 10 percent. The hospitals will select the replacement technology and equipment they wish to acquire. Some of the recipients are expected to choose more expensive technologies and pay the difference between the project funding allowance and the chosen technologies. As per the relevant guidelines, incremental operating costs have not been requested.

4. The cost-effectiveness of the project is US \$38.3 per kg.

## **SECRETARIAT'S COMMENTS AND RECOMMENDATION**

### **COMMENTS**

5. The Secretariat's analysis indicates a number of areas that require clarification.

6. There is no information about how the remainder of the hospitals in Mexico phased out the use of 12/88, which was probably substantial given the number of hospitals in Mexico. This would have provided background to the technology choice, the determination of the incremental

capital costs, and why funding is being sought at this stage when the sub-sector has almost fully converted without assistance from the Fund.

7. The consumption is an estimate which *inter alia* depends on the accuracy of assumptions about significant parameters, including average equipment capacity, and average equipment usage rates. Since there are only 14 units involved, the Bank was asked to provide information about actual consumption.

8. The four technologies listed as being acceptable to government guidelines for public hospitals omit the one technology that can be used in existing equipment. This involves an HCFC mixture, but it has been listed by the TEAP as having a role in phase-out to provide an alternative to the premature retirement of costly equipment. The project does not indicate whether HCFC mixtures have been, or are being used elsewhere in hospitals in Mexico.

9. The unit incremental capital costs are an estimate based on calculation of the weighted average cost of a typical piece of replacement equipment. Given the variation in equipment types and sizes, and the sensitivity to the calculation of some of the assumptions used, the level of cost lacks a sound basis.

10. The Secretariat is discussing these issues with the World Bank and will advise the Sub-Committee on Project Review whether a recommendation is able to be made.

## RECOMMENDATION

11. Pending

----