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PROJECT PROPOSALS: ARGENTINA

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

Foam

- Phaseout of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane foam (spray) at Comenco UNDP

Fumigant

- Demonstration and training in viable alternatives, information dissemination, and development of a national plan for phasing out methyl bromide in Argentinean tobacco sector UNDP

Halon

- National halon management program to help eliminate the use of halon 1301 in new applications and to manage recovered halon 1301 World Bank

PROJECT EVALUATION SHEET ARGENTINA

SECTOR: FOAM ODS use in sector (1996): 142.8 ODP tonnes

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

Project Title:

Phase out of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane foam (spray) at Comenco.

Project Data	Rigid
	Comenco
ODS phase-out (ODP tonnes)	31.2
Proposed project duration (months)	24
Incremental capital cost (US \$)	88,000
- including contingency (%)	10
Incremental operational cost (US \$)	122,150
Total project cost (US \$)	210,150
Local ownership (%)	100
Export component (%)	0
Amount requested (US \$) {Original}	202,000
{Revised}	210,150
Cost effectiveness (US \$/kg)	6.74
National Coordinating Agency	OPROZ
Implementing Agency	UNDP
Technical review completed?	Yes

Secretariat's Recommendations:	
Amount recommended (US \$)	210,150
Project impact (ODP tonnes)	31.2
Cost effectiveness (US \$/kg)	6.74
Implementing Agency support cost (US \$)	27,320
Total cost to Multilateral Fund (US \$)	237,470

PROJECT DESCRIPTION

Phase out of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane foam (spray) at Comenco.

1. It is reported that the yearly CFC consumption in Argentina is increasing much faster than the average economic growth. This is said to be due to the development of the Mercosur markets, which has resulted in an increased demand for refrigerated transport, refrigerated storage and automotive air conditioning; new regulations of the health authorities requiring that perishable food be transported in isotherm utilizing specialized refrigeration equipment and newly emerging applications of foams such as packaging, shoes, automotive industry, etc.
2. The Argentine foam industry consumed in 1992, the base year of the country programme, 1,484 ODP tonnes of CFCs. CFC-11 was the dominant substance (1,275 tonnes) followed by CFC-12 (209) tonnes. The rigid insulation foam sector (commercial and domestic refrigerators, panels, vehicles, spray foam) consumed 617 tonnes of CFC-11 in 1992, while it is estimated to have consumed 870 in 1996. CFCs in non-insulating foams is scheduled to be phased out in or before 2000.
3. The spray foam industry is located mainly in Buenos Aires, with other manufacturers scattered throughout the country. It consists of small enterprises, subcontracted by major contractors to apply spray foam insulation. CFC consumption of the industry in 1996 was approximately 140 tonnes. The polyol systems are supplied preblended.
4. 25 projects including 21 investment projects amounting to a total of US \$9.2 million have been approved to phase out 934 ODP tonnes CFC-11 and 445 ODP tonnes CFC-12 in the foam sector in Argentina. 19 tonnes CFC-11 and 349 tonnes CFC-12 have been phased out.
5. UNDP indicates that the Comenco project will eliminate 31.2 tonnes of CFC-11, and therefore is important in helping Argentina to meet its obligations with the Montreal Protocol.
6. Comenco will phase out the use of CFC-11 in spray foam. Its CFC-11 based on 1996 data is 32.8 tonnes. The production is to be converted to HCFC-141b as an interim technology, with likely final conversion to water-based technology. The company operates five Gusmer FF-1600 spray foam machines purchased between 1987 and 1994, one Gusmer H 2000 and one Gusmer H-II machines purchased in 1993 and 1992 respectively. The project costs include retrofit of the six Gusmer FF-1600 at US\$ 5,000 each and the Gusmer H 2000 at US\$ 10,000 and replacement of the Gusmer H-II at US\$ 30,000. Other costs include trials (US\$ 5,000), technology transfer and training (US\$ 10,000) and incremental operational cost of US\$ 114,000.

Justification for the use of HCFC-141b.

The following information has been provided in the project document:

7. The enterprise has chosen to employ HCFC-141b as an interim solution since the only viable alternative to HCFC-141b at the current time in spray foam applications is water-based formulations. However, with the water-based formulations, a density increases of 20-30% would

be required for safe processing, and the insulation value would suffer 35-40%. The result would be a product that could not be sold commercially. Although water-based systems are improving, HCFC-141b will probably be necessary until HFC based systems are available in the market.

8. The enterprise has been informed by the sector expert of the available technical options. They have also been informed that HCFC's are transitional substances, and that under present Multilateral Fund rules, they will not be able to seek additional funding from the MPMF later to convert to zero-ODP technologies.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The project was prepared and reviewed in 1998. However, the company's baseline CFC-11 consumption of 32.8 tonnes originally reported in the project document was based on 1996, instead of the year or average of preceding three years prior to the preparation of the project, which is not consistent with the Executive Committee decision regarding enterprise baseline consumption data. UNDP subsequently provided the company's consumption for 1997 as 35.1 tonnes. The final project cost of US \$210,150 is based on this figure.

2. The period of interim use of HCFC-141b was indicated to be 2-5 years.

3. The incremental capital costs were agreed as US \$88,000. The incremental operational cost based on the CFC-11 consumption of 35.1 tonnes was US \$122,150, resulting in a total project cost of US \$210,150.

RECOMMENDATION

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

Project Title	Project Cost US \$	Support Cost US \$	Implementing Agency
Phase out of CFC-11 by conversion to HCFC-141b technology in the manufacture of rigid polyurethane foam (spray) at Comenco.	210,150	27,320	UNDP

PROJECT EVALUATION SHEET ARGENTINA

SECTOR: FUMIGANT ODS use in sector (1997): 500 ODP tonnes

Sub-sector cost-effectiveness thresholds: N/A

Project Titles:

Demonstration and training in viable alternatives, information dissemination, and development of a national plan for phasing out methyl bromide in the Argentinean tobacco sector.

Project Data	Methyl Bromide
	Ozone Office
ODS phase-out (ODP tonnes)	-
Proposed project duration (months)	24
Incremental capital cost (US \$)	273,350
- including contingency (%)	10
Incremental operational cost (US \$)	273,350
Total project cost (US \$)	
Local ownership (%)	100
Export component (%)	-
Amount requested (US \$) {Original}	401,170
{Revised}	273,350
Cost effectiveness (US \$/kg)	-
National Coordinating Agency	Ozone Unit, Secretaría de Recursos Naturales y Desarrollo Sustentable
Implementing Agency	UNDP
Technical review completed?	Yes

<i>Secretariat's Recommendations:</i>	
Amount recommended (US \$)	273,350
Project impact (ODP tonnes)	N/A
Cost effectiveness (US \$/kg)	N/A
Implementing Agency support cost (US \$)	35,535
Total cost to Multilateral Fund (US \$)	308,885

PROJECT DESCRIPTION

Demonstration and training in viable alternatives, information dissemination, and development of a national plan for phasing out methyl bromide in the Argentinean tobacco sector.

1. Consumption of methyl bromide in Argentina increased during the last few years. In 1996, 684 metric tonnes were used for soil fumigation and treatment of substrates (about 94%), and commodity fumigation, quarantine, and other uses. Of this amount, 230 tonnes were used for fumigation of seedbed soil in almost all tobacco plant nurseries in the country due to its relatively low cost, and excellent weed, nematodes and soil insect control.
2. The project will demonstrate the technical, social, and economic feasibility of the following methyl bromide alternative technologies for tobacco seedbeds: non-soil (hydroponics) techniques, solarization, and use of other chemicals, all in combination with an integrated pest management (IPM) system.
3. The selection of alternative technologies for demonstration, was based on compilation of national and international experiences and discussions with major stakeholders, including tobacco farmer's associations and co-operatives, tobacco companies (cigarette manufacturers and tobacco dealers), governmental and private staff, agrochemical suppliers and INTA (the Federal Government's applied research and extension services) personnel. Demonstrations will be carried out on farms and some of INTA's field units.
4. The project also proposes training of farmers in the use of alternative techniques and producing information tools, including manuals, training tools, fact-sheets and a report on the viability of alternatives for farmers and policy makers; implementation of information programmes so that farmers, tobacco companies, and agricultural agencies understand the need to phase out methyl bromide; and development of a national plan for phasing out methyl bromide in the tobacco sector.
5. Tobacco companies, farmers and other key stakeholders have indicated their interest in participating in the project. The tobacco companies have made a strong commitment to promote alternative technologies (such as float systems) which have other commercial advantages.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The project concept follows the Executive Committee's guidelines.
2. Argentina ratified the Copenhagen Amendment on 20 April 1995.
3. The project document forecasts that the Argentine tobacco sector would be able to phase-out methyl bromide by 2005.

4. The Secretariat and UNDP discussed the range of tasks and the professional and supervisory structure proposed in the project, including the number of international and national consultants and experts. Initially, 11 person-years of staff resources was proposed to be included in the cost of the project, with an additional 4 person-years to be funded by INTA. Subsequently, UNDP reduced these costs by 50 percent.

5. The Secretariat and UNDP discussed issues regarding proposed funding for the construction of greenhouses and auxiliary equipment (including meteorological units, tents, sterilising machines, computers). Subsequently, UNDP agreed to adjust the costs of laboratory analysis and equipment according to similar requests approved so far and removed the request for construction of greenhouses and for computers (a total reduction of US \$28,000 was agreed).

RECOMMENDATION

1. Taking into consideration the above comments, the Fund Secretariat recommends blanket approval of the project with associated support costs at the funding level shown in the table below:

Project Title	Project Cost US \$	Support Cost US \$	Implementing Agency
Demonstration and training in viable alternatives, information dissemination, and development of a national plan for phasing out methyl bromide in Argentinean tobacco sector	273,350	35,535	UNDP

PROJECT EVALUATION SHEET ARGENTINA

SECTOR: HALON ODS use in sector (1995-97 Avg): 330 ODP tonnes

Sub-sector cost-effectiveness thresholds: 1.48 US \$/kg

Project Title:

Halon Banking programme to help eliminate the use of Halon 1301 in new applications and to manage recovered Halon 1301 in Argentina

Project Data	Halon
	National Management Programme
ODS phase-out (ODP tonnes)	200
Proposed project duration (months)	24
Incremental capital cost (US \$)	290,620
- including contingency (%)	10
Incremental operational cost (US \$)	-
Total project cost (US \$)	290,620
Local ownership (%)	100
Export component (%)	N/A
Amount requested (US \$) {Original}	406,912
{Revised}	290,620
Cost effectiveness (US \$/kg)	1.45
National Coordinating Agency	OPRO / UEPRO
Implementing Agency	The World Bank
Technical review completed?	Yes

Secretariat's Recommendations:	
Amount recommended (US \$)	290,620
Project impact (ODP tonnes)	200
Cost effectiveness (US \$/kg)	1.45
Implementing Agency support cost (US \$)	37,778
Total cost to Multilateral Fund (US \$)	328,378

PROJECT DESCRIPTION

Halon Banking Programme to Help Eliminate the Use of Halon 1301 in New Applications and to Manage Recovered Halon 1301 in Argentina

1. Argentina's average halon consumption for years 1995-1997 was approximately 330 tons ODP. The purpose of this project is to establish a National Halon Management Programme, to help eliminate the use of Halon 1301 in new applications not considered critical in terms of the country's needs, and to manage the recovered Halon 1301 to serve existing installations during the equipment's lifetime.
2. The project is an integral part of the overall approach toward the phase-out of the use of halons in Argentina, besides a framework regulation to control halon imports and use. It includes two modules: setting up of a halon management programme, including training and education to the fire protection industry, and transfer of alternative fire protection technology and technical assistance for users and the establishment of a national H-1301 reclamation and recycling system, through a network of recovery stations, three strategically located reclamation and storage facilities, and a national clearing-house centre.
3. The Government of Argentina enacted law 24/040 in 1991, which bans the use of halons for firefighting except for essential uses, starting 5 years after the effectiveness of such law. All companies producing portable fire-fighting equipment have converted to non-ODS alternatives. The proposal states that no funds from the Multilateral Fund will be requested for halon 1211 banking and the Bank confirmed that no further halon activities would be required in Argentina.
4. The proposal notes that there have been many conversions from halon 1301 to alternatives and that the importation of halon 1301 has ceased.

SECRETARIAT'S COMMENTS AND RECOMMENDATIONS

COMMENTS

1. The project provides for education and training projects and a national reclamation and recovery system for halon 1301 in Argentina. Halon 1211 facilities will not be required under this programme.
2. The national reclamation and recovery system will include halon 1301 reclaiming equipment at three facilities throughout the country. Gas chromatographs will be provided to prevent contamination and to ensure that the reclaimed halon meets ISO standards.
3. The value of the recovered halon and the agreements between INTI and the three recovery centres will cover the operational costs for the national system.

RECOMMENDATION

1. The Fund Secretariat recommends that the project should be approved at a level of US \$290,620 and support costs of US \$37,778 for the World Bank.
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