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蒙特利尔议定书 多边基金执行委员会 第四十四次会议 2004年11月29日至12月3日,布拉格

项目提案: 阿根廷

本文件载有基金秘书处对以下项目提案的评论和建议:

生产

• 逐步停止 CFC-11 和 CFC-12 生产战略: 2004 年度工作方案

世界银行

## 背景

1. 执行委员会在 2002 年第三十八次会议上原则上核准为执行《阿根廷化工生产行业协定》拨款总计 830 万美元,第一期 50 万美元已拨给该项目。下表列出了年度氟氯化碳产量限额和供资阶段。

年份	2002	2003	2004	2005	2006	2007	2008	2009	2010	总计
允许的最高产	3,020	3,020	3,020	1,647	1,647	686	686	686	0*	
量(公吨)										
多边基金供资	0.5	3.5	0	0.3	2	0	1	1		8.3
(百万美元)										
机构费用(百	0.02	0.11	0.09	0.12	0.10	0.12	0.12	0.047		0.727
万美元)										

- (\*) 除了缔约方为满足阿根廷的必要用途可能商定的氟氯化碳产量。
- 2. 按照该协定中要求对年度生产指标的成就进行独立核查的条款,世界银行向 2004年7月的第四十三次会议提交了阿根廷惟一的氟氯化碳生产厂商 FIASA 2002年和 2003年氟氯化碳产量的核查报告。经过核查得出结论,2002年 FIASA生产了 3,015 ODP吨氟氯化碳,2003年生产了 3,018 ODP吨氟氯化碳,这两年的产量都低于协定中规定的 3,020 ODP吨指标。
- 3. 世界银行现提交 2004 年度工作方案并申请发放 2003 年和 2004 年的两期供资 350 万美元和相关的支助费用: 2003 年 110,000 美元, 2004 年 90,000 美元。世界银行还就秘书处关于提交第四十三次会议的 FIASA 2002 年和 2003 年氟氯化碳产量的核查报告的评论提交了答复。2004年工作方案和世界银行的答复附于本文件。

## 2004 年度工作方案

- 4. 2004 年度工作方案包括 FIASA 的氟氯化碳 产量指标、阿根廷政府为执行氟氯化碳生产淘汰计划和为 2004 年计划的技术援助活动所颁布的政策。2004 年的氟氯化碳生产指标为 3,020 ODP 吨,这符合行业计划中的指标。阿根廷政府通过制订最高生产限额确保实现该指标,这在法律上得到了第 24.040/1991 号国家法令的支持,后者确定了对消耗臭氧层物质的生产和销售进行管制。此外,阿根廷政府将自 2005 年 1 月 1 日起实行国家消耗臭氧层物质进出口许可证制度,将建立消耗臭氧层物质进出口商登记册并分配由环境部管理、由海关执行的年度配额。
- 5. 2004年度方案计划了一些支持行业计划的技术援助活动,该方案还包括培训政府工作人员以管理国家淘汰计划,探讨 FIASA 的替代商业机会并开展提高公众认识运动。但是,由于阿根廷政府与世界银行没有签署次级赠款协定,所以这些活动中没有一项得到实施。
- 6. 为了监测行业计划的执行,工业和商业部项目执行股将派遣一名兼职专业人员视察 FIASA,每月核查一次生产日程。

7. 在总计 830 万美元的供资中,780 万美元将作为补偿付给 FIASA,剩下的 50 万美元将用于管理该方案和开展技术援助活动。2004 年方案中有 350 万美元将成为付给 FIASA 的第一期款项,一旦签署了次级赠款协定,这笔款项将拨给该厂家。附件一中有四个表详细说明了 2004 年方案的各个组成部分。

## 秘书处的评论

- 8. 呈件确定了与协定中的指标一致的氟氯化碳 生产指标。管制消耗臭氧层物质生产的现行政策和将在 2005 年颁布的新的进出口许可证制度为实施生产管制提供了有力的支持。 工业和商业部实施的月度监测应该保证该企业遵守最高生产限额并且保持生产记录。
- 9. 该项目在签署次级赠款协定方面有些拖延,尽管据报告将在第四十四次会议之前签署该协定。

## 建议

- 10. 秘书处谨建议执行委员会:
  - (a) 注意到世界银行对关于阿根廷 FIASA 2002 年和 2003 年氟氯化碳产量的核查报告的评论做出的答复。
  - (b) 核准阿根廷氟氯化碳生产淘汰计划 2004 年度工作方案的供资数额 350 万美元以及 2003 年和 2004 年世界银行的相关支助费用 200,000 美元。

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## STRATEGY FOR GRADUAL PHASEOUT OF CFC-11 & CFC-12 PRODUCTION IN ARGENTINA

## 2004 ANNUAL PROGRAM

OPROZ / UEPRO AND

THE WORLD BANK

September 2004

## 1. DATA

Country	Argentina	l		
Year of plan	2004			
No. of years completed	1			
No. of years remaining under the plan	6			
Total ODS to be phaseout through the Strategy for Gradual Phaseout of CFC -11 & CFC -12 Production in Argentina	CFC – 11 + CFC – 12: 3020			
	ODS 3:	ODS 3:		
	ODS 4:	T	_	
ODS Production for the		Target	Actual	
Previous year (MT)	CFC	3,020	3.018	
	ODS 2			
	ODS 3			
	ODS 4			
CFC production independently verified	Yes			
Target ODS Consumption for the year of	CFC: 3,020 MT			
the plan (MT)	ODS 2			
	ODS 3			
	ODS 4			
Total MLF funding approved for the Plan	US\$ 8.3 Million			
Total funds released so far		1		
		Funding	Disbursed (*)	
Total funding disbursed on annual plans	Year 1	500,000	0	
	Year 2	3,500,000	0	
	Year 3	0	0	
	Total	4, 000,000	0	
Level of funding requested for this AP	US\$ 3,500,000			
Lead implementing agency	The World Bank			
Co-operating agency (ies)	UEPRO			
	OPROZ (Secretariat of Environment and Sustainable Development)			

<sup>(\*)</sup> No disbursements have taken place due to the delays in the Signature of the Sub Grant Agreement between the Government of Argentina (GOA) and FIASA.

## A: INTRODUCTION

Provide a brief general overview on the status of the implementation of the NOPP/SOPP and recent progress, new initiative, achievements etc.

In compliance with the Montreal Protocol, the Government of Argentina (GOA) should fulfill the obligations on phasing-out CFC-11&12 production by 2010. The CFC Production Phase-out Plan for Argentina was approved at the 38th meeting of the Executive Committee (ExCom) of the Multilateral Fund for the implementation of the Montreal Protocol and involves a sole production facility at Frio Industrias Argentinas S.A. (FIASA). The table below summarizes the phase out schedule as per the Agreement between the ExCom and the GOA:

**Table1: Phase-out schedule as per the Agreement with ExCom:** 

Year	CFC-11 and CFC-12		MLF funding (in Mill USD)	
	Target	Actual	Project funding	Support costs
2002	3,020	3,015	0.5	0.02
2003	3,020	3,018	3.5	0.11
2004	3,020		0	0.09
2005	1,647		0.3	0.09
2006	1,647		2.0	0.10
2007	686		0	0.09
2008	686		1.0	0.12
2009	686		1.0	0.017
2010	0		0	0
Total	3,020 (Total impact)	3,020 (Total impact)	8.30	0.637

<sup>(\*)</sup> save for any CFC production that may be agreed by the Parties to meet essential uses for Argentina

- The World Bank has submitted the reports of the independent external audits for the years 2002 and 2003, proving the accomplishment of the proposed maximum production targets for that period.
- Argentina will maintain its maximum CFC production level as agreed for 2004 of 3,020 MT, and will reduce its production (1,647 MT) by 2005.
- The Subgrant Agreement (SGA) between the GOA and FIASA is expected to be signed before the 44<sup>th</sup> ExCom meeting.

#### **B:** 2004 ANNUAL PROGRAM

## 1. STATUS OF IMPLEMENTATION 2004 ANNUAL PROGRAM

In accordance with the phase out schedule agreed with ExCom, the GOA has complied with the maximum production caps for the years 2002 and 2003. OPROZ though UEPRO has implemented a monitoring system to support its surveillance activities over FIASA's production. During the first semester of 2004, no activities linked to the TA component were undertaken due to fact that the SGA with the enterprise has not yet been signed.

The phase-out plan includes the following activities:

- (a) Phasing out CFC production by 2010;
- (b) Dismantling FIASA's CFC production facilities;
- (c) Monitoring achievement of each year's production under the maximum cap agreed with ExCom
- (d) Implementation of policy measures and technical assistance activities to support the plan in a sustainable permanent manner

# 1.1Policies, regulations etc. and governmental actions and initiatives

(e) Import / Export licensing System: In January, 1, 2005, the Government of Argentina will have a National ODS licensing system in place. The system is based on a national registry of ODS importers and exporters and will be located, administrated by the Secretariat of Environment and enforced by the Customs, Quotas will be allocated based on historic import/export volumes, following ODS consumption restrictions established by the Montreal Protocol. (f) Annual Production caps in Argentina have been in compliance with the Montreal Protocol phased-out schedules in 2002 and 2003, and has been enforced by the Secretariat of Environment. Legally, the controls are supported by the National Law No. 24.040 /1991 which establishes controls to the production and commercialization of ODS.

#### 1.2 Technical assistance activities

The technical assistance component (\$500,000) will be implemented throughout the project implementation (up to 2010). The following activities will be implemented during 2004:

- > Supporting the GOA to strengthen technical capacity of local staff: This will include training of GOA staff, plus workshops for various participants in the phase-out program, including training in reclamation and re-cycling;
- ➤ Research for Market Prospects: This will finance the pre-feasibility evaluation of alternative products/business for FIASA;
- Public Awareness campaign: This activity will support the ozone protection communication strategy prepared by OPROZ, and is linked to other activities currently being implemented by OPROZ;

The terms of reference and work schedule will be agreed with World Bank prior to initiating work.

## 1.3 Project Management Unit

The existing project coordination unit established at UEPRO will continue its activities. However, UEPRO will allocate on a part-time basis one professional staff position from INTI (Instituto Nacional de Tecnología Industrial) for maintaining technical, financial and statistical records to manage this phase-out program. The consultant will visit the plant on a regular basis, at least once every four weeks, to verify production logs.

UEPRO will be provided with computing equipment and technical assistance to keep track of the information collected.

## 1.4. Compensation to FIASA

The requested US\$3.5 Million is the first tranche of the plan approved for FIASA. Resources will be disbursed once the enterprise and the Government sign the SGA. The total amount of the Sub Grant Agreement is \$7.8 Million and will be disbursed in tranches according to the Agreement between the Executive Committee for the Implementation of the Montreal Protocol and the Government of Argentina. Additional \$500,000 approved by the Executive Committee for the Implementation of the Montreal Protocol are being used in Technical Assistance for the Government as detailed above.

## **ANNEX 1**

## PROPOSED ACTIVITIES IN THE 2004 ANNUAL PROGRAM

## TABLE 1A: POLICIES AND REGULATIONS

Proposed	Estimate	Ministry/Agency	Planned date of	
policy/regulation	costs	to be in charge	effectiveness	
Import / Export		Secretariat of	12/31/2004	
licensing system		Environment and		
		Sustainable		
		Development		
Production caps		OPROZ /	12/1/2004	
		UEPRO		

# TABLE 1B TECHNICAL ASSISTANCE ACTIVITIES AND TRAINING ACTIVITIES

Name of TA/Training activity	<b>Estimated costs</b>	Duration
Supporting the GOA to strength technical	15,000	1 Year
capacity of local staff;		
Research for Market Prospects	35,000	2 months
Public Awareness	10,000	1 Year
Facilitating monitoring capabilities and compliance with the agreement between Argentina and the Executive Committee of the MLF.	30,000	1 Year

## TABLE 1C: PROJECT MANAGEMENT UNIT

Name of activity	<b>Estimated costs</b>	Duration
One professional staff part-time;	7,000	1 Year
Equipment	8,000	One time basis

## TABLE 1D: COMPENSATION TO FIASA

Name of activity	<b>Estimated costs</b>	Duration	
Signature of SGA with FIASA	3,500,000	2004	

<sup>(\*)</sup> The total amount of the Sub Grant Agreement is \$7.8 Million and will be disbursed in tranches according to the Agreement between the ExCom and the GOA.

## ANNEX 2

Contact Agency/Organization and person in charge of managing the national import/export licensing system.

## Secretariat of Environment and Sustainable Development

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#### ARGENTINA: CFC-11&12 PRODUCTION PHASE OUT PROJECT

## Follow up of the 43<sup>rd</sup> EXCOM Meeting – July 2004

In response to document UNEP/OzL.Pro/ExCom/43/26/add.1 prepared by the Multilateral Fund Secretariat for the 43<sup>rd</sup> meeting, the World Bank has the following comments:

#### CFC-11 and CFC-12 Production

**CFC-13 co-production**: Co-production of CFC-13 at FIASA is very low; based on typical co-production percentages for determined CFC-11/CFC-12 output ratios, it has been estimated somewhere between 1.0 - 1.6% of total CFC-11+12 production. As per the maximum production cap allowed under the agreement with ExCom (3020 MT), the maximum output of CFC-13 would fall in the range of 30.2 - 48.3 MT per year, whereas this maximum volume would significantly drop to 15.1 - 19.1 MT in 2005 (cap for CFC-11+12 = 1647 MT), and 6.9 - 11 MT in 2007 (cap for CFC-11 + CFC-12 = 686 MT).

Monitoring and recovering CFC-13: CFC-13 has a very low boiling point and it would take a fairly complex condensing system to recover it from the other non-condensable gases that are vented from the refining distillation column. To determine how much CFC-13 is actually co-produced, a careful analysis of the crude product stream would be required. Another possibility would also be to measure the hourly vent rate of non-condensable gases from refining and carry out an analysis on this stream to determine the % of CFC-13; this would give a fairly accurate vent rate for the material.

CFC-13 disposal: Once the CFC-13 output is estimated, alternatives for disposal would have to be developed. Disposal of the captured CFC-13 would pose another problem in case it does not reach the standard to be sold as refrigerant grade CFC-13 (traces of CFC-12 and HFC-14 may be found). The installation of a refining vent tail gas incinerator to destroy all traces of fluorocarbons would consequently be a possible alternative; however, the destruction products would be HCl and HF with some serious corrosion problems that can be handled, but likely quite expensive. It is possible that a commercially available molecular sieve could be installed on the vent stream to capture the residual fluorocarbons, but again subject to a high cost.

**FIASA's capacity to deal with CFC-13**: As informed by FIASA and explained by the Bank, the company does not have the capacity to trace, recover or manage the coproduction of CFC-13 (an Annex B, group II substance).

Based on information from CFC plants in the United States and China, none of the plants in those countries have CFC-13 recovery facilities; in the case of India, there isn't evidence of recovery or disposal activities. In the United States, China and Russia, CFC-13 was produced in special facilities dedicated to it's production rather than attempt to recover it from CFC 11/12 plants. Comparing the highest CFC-13 output in FIASA to the

lowest overall volumes co-produced in any of the alluded countries, the formers potential emissions turn insignificant. Moreover, it does not affect Argentina's compliance with the phaseout agreements for CFC production.

The main concerns about investing in monitoring and recovery activities would be the high costs involved in dealing with such a low concentration by-product in a plant with a very limited remaining lifetime.

Disposing of CFC-13 at FIASA would require additional funding to cover incremental costs, which were not included in the approved closure project in 2002. However, the Bank could estimate the associated incremental costs to be incurred and report back to ExCom for its consideration.

## The 2004 Annual Program

A work program has been produced in coordination with the Government of Argentina (Attached).

## CTC Stocks

The consultant that carried out the audit report has informed to the Bank that FIASA does not have the capacity to trace specific components within the reactor. The data provided on the verification report was based on estimates from the percentage of production of CFC-11 and CFC-12 for 2002 and 2003; and it was done to fill out the agreed format for verification audits.

#### Daily CFC Production Records

Daily CFC production records are being stored and filed at the plant since February 18, 2004.

#### Qualification of the Verification Team

The Bank will ensure that the verification team for the CFC Production Verification in 2004 includes a member with financial and accounting background.