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الأمم المتحدة



للبيئة

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اللجنة التنفيذية للصندوق المتعدد الأطراف

لتنفيذ بروتوكول مونتريال

الاجتماع الأربعون

مونتريال ، 16-18 تموز/يوليه 2003

### اقترح بمشروع : الأرجنتين

تتكون هذه الوثيقة من تعليقات وتوصيات من أمانة الصندوق عن الاقتراح بمشروع الآتي بيانه :

#### مادة تبخير

- إزالة بروميد الميثيل من أحواض بذور التبغ والخضروات غير المحمية (الشريحة الثالثة) اليوثنديبي

ورقة تقييم المشروع  
الأرجنتين

القطاع : مادة التبخير الـ ODS المستعملة في القطاع (2001) : ODP 358,8 طن

عتبات جدوى التكاليف في القطاع الفرعي : لا ينطبق

عنوان المشروع

(أ) إزالة بروميد الميثيل من أحواض بذور التبغ والخضروات غير المحمية (الشريحة الثالثة)

بيانات المشروع	مادة التبخير
استهلاك المنشأة (طن ODP)	21
وقع المشروع (طن ODP)	12
مدة المشروع (أشهر)	467.000
المبلغ المطلوب أصلا (دولار أمريكي)	
التكلفة النهائية للمشروع (دولار أمريكي)	
التكلفة الرأسمالية الإضافية (أ)	
تكلفة الطوارئ (ب)	
تكلفة التشغيل الإضافية (ج)	467.000
مجموع تكاليف المشروع (أ+ب+ج)	
الملكية المحلية (%)	
عنصر التصدير (%)	467.000
المبلغ المطلوب (دولار أمريكي)	22,24
جدوى التكاليف (دولار/كغ)	
هل تأييد تمويل الجهة النظرية ؟	
الوكالة الوطنية المنسقة	Instituto Nacional de Tecnología Agropecuaria and Ozone Unit
الوكالة المنفذة	اليونديبي

توصيات الأمانة	
المبلغ الموصى به (دولار أمريكي)	
وقع المشروع (طن ODP)	
جدوى التكاليف دولار/كغ	
تكلفة مساندة الوكالة المنفذة (دولار أمريكي)	
مجموع التكلفة على الصندوق المتعدد الأطراف (دولار أمريكي)	

## وصف المشروع

### خلفية الموضوع

1- قدمت حكومة الأرجنتين إلى اللجنة التنفيذية في اجتماعها الأربعين ، كي تنظر فيه ، تقريراً مرحلياً عن تنفيذ برنامج إزالة جميع استعمالات بروميد الميثيل المتبقية للتربة ، في أحواض بذور التبغ وأحواض بذور الخضروات في الحقول المفتوحة (غير المحمية ) (الطماطم ، الفلفل الأخضر، الباذنجان ، وغير ذلك) . ومرفق بهذه الوثيقة صورة من ذلك التقرير .

### تقرير مرحلي

2- إن المرحلة الأولى من المشروع استهدفت إزالة 29 طن ODP من بروميد الميثيل ، ووضع إطار وآليات لكفالة بقاء ما يتم من إزالة .

3- بذلت عدة أنشطة ما بين أبريل 2002 و 31 مارس 2003، تشمل ما يلي : تكوين فريق للمشروع ووضع خطط وطنية وخطط عمل وطنية وإقليمية للتنمية ؛ رصد وازادات واستعمالات بروميد الميثيل ؛ الاتصالات بأصحاب المصلحة ، مما أدى إلى توقيع اتفاقات مع حكومات سبع ولايات تزرع التبغ ، مع إلتزام بالإزالة الكاملة لبروميد الميثيل في هذا القطاع بحلول عام 2007 ؛ تدريب المزارعين والأخصائيين على استعمال بدائل لبروميد الميثيل ؛ تقديم عطاءات وتوريد معدات ومدخلات زراعية لموسم إنتاج 2003؛ وتنظيم ندوة وطنية لقطاع التبغ ، لمناقشة وضع السياسة الوطنية .

### الأنشطة المقترحة

4- إلى جانب التقرير المرحلي قدمت حكومة الأرجنتين كذلك طلباً بمبلغ 467.000 دولار أمريكي توازي الشريحة الثالثة لتمويل المشروع . ومن المقترح ، بهذه الأموال ، تدريب ما لا يقل عن 60 مرشداً زراعياً و 4.900 مزارع و 10.000 عامل ، وشراء مدخلات ومواد لموسم 2004 ، لتحقيق إزالة 21 طن ODP إضافية من بروميد الميثيل ، والاستمرار في أنشطة رفع مستوى الوعي وإيجاد مواد تدريب ومنتشورات تدريب .

## تعليقات وتوصيات الأمانة

### تعليقات

5- إن التقرير المرحلي عن تنفيذ البرنامج القطري ، المقدم من حكومة الأرجنتين إلى أمانة الصندوق (مايو 2003) قد ذكر أن 298,8 طن ODP من بروميد الميثيل قد استعملت لتبخير التربة في 2001 . ويتضمن هذا المقدار 168,6 طن ODP استوردت في 2002 و 130 طن ODP متبقية من واردات سنوات سابقة (مخزون). وكان كل من استهلاك بروميد الميثيل في عام

2002- المادة 7 - (168,6 طن ODP) ، والاستعمال الفعلي لبرومييد الميثيل في السنة نفسها (298,8 طن ODP) ، أقل من المقدار الأقصى المتبقي من الاستهلاك عن عام 2002 ، الذي تم الاتفاق عليه بين الحكومة واللجنة التنفيذية (أي 376,6 طن ODP) .

6- سعت الأمانة إلى الحصول على إيضاح من اليوئنديبي بشأن ما إذا كان تخفيض استهلاك برومييد الميثيل قد تحقق من خلال تنفيذ المشروع أو كان نتيجة للأزمة الاقتصادية التي حدثت مؤخراً في البلد (وانطوت على تخفيض قيمة العملة الوطنية بـ 370 في المئة) مما أجبر عدة مزارعين على أن يخفضوا جزئياً أو يزيلوا استعمال برومييد الميثيل و/أو مساحة الإنتاج .

7- قام اليوئنديبي بإبلاغ الأمانة أن الأنشطة التي بذلت منذ أبريل 2002 قد لعبت دوراً هاماً في إزالة جزء من استهلاك برومييد الميثيل في قطاع التبغ . وخلال فترة الـ 2000-2002 تم إزالة 68 طن ODP من برومييد الميثيل في قطاع التبغ ، ( 54 طن ODP مردها الأخذ بوسائل بديلة و 14 طن ODP بسبب الظروف الاقتصادية المناوئة ) .

8- وفي هذا الصدد سعت الأمانة إلى الحصول على إيضاح بشأن إسهام الجهة النظرية (البالغ قدره 3,38 مليون دولار أمريكي تقريباً) على الرغم من الوضع الاقتصادي الصعب جداً في البلد . وأجاب اليوئنديبي بأنه حيث أن تكلفة المشروع كانت أكبر من مستوى الأموال المعتمدة ، فالأمر يقتضي إسهاماً من الجهة النظرية . وقد استعملت إسهامات الجهة النظرية لتوفير مواد لنظام المقاصير العائمة ولتغطية تكاليف إقامة منشآت وعمالة.

9- خلال إعداد اقتراح المشروع ، كان سعر الوحدة من مقاصير البلاستيك اللازمة لتكنولوجيا نظام المقاصير العائمة يقدر بدولار أمريكي واحد (وتكاليف المقاصير تمثل حوالي 65 في المئة من مجموع التكلفة الرأسمالية للاقتراح بالمشروع الخاص بالأرجنتين) وعلى غرار ذلك فإن سعر الوحدة من الخميرة وورقات البلاستيك في المشروع الأصلي كان مقدراً بـ 0,219/1 دولار أمريكي للتر و 24,90 دولار أمريكي للهكتار على التوالي . غير أنه خلال تنفيذ المشروع ، فإن سعر شراء المقاصير كان يتراوح بين 0,72 و 0,81 دولار أمريكي للوحدة ، بينما كانت أسعار الخميرة 0,120/1 دولار أمريكي للتر و 22,17 دولار أمريكي للهكتار من ورقات البلاستيك . وقد لاحظت الأمانة على أساس الأسعار الحالية أن عدداً كبيراً من الأنفاق الدقيقة (حوالي 20 في المئة زيادة) يمكن بناؤها بمستوى التمويل نفسه ولذا فإن مدة المشروع (أي خمس سنوات) يمكن تخفيضها.

#### توصية

10- قد ترغب اللجنة التنفيذية في أن تنظر في طلب الحصول على الشريحة الثالثة من المشروع لإزالة جميع الاستعمالات المتبقية لبرومييد الميثيل في التربة ، في أحواض بذور التبغ وأحواض بذور الخضروات في الحقول المفتوحة (غير المحمية) ، على أساس التعليقات الواردة أعلاه .



**ANNUAL PROGRESS REPORT**  
**Argentina's project to phase-out methyl**  
**bromide in soil fumigation of tobacco and**  
**open-field vegetables' sectors**



**Report of activities,**  
**YEAR I (April 2002 – March 2003)**

**MLF project number: ARG/FUM/36/INV/129**  
**UNDP project number: ARG/02/G61**

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## 1. BACKGROUND

### 1a. PROJECT INFORMATION

<b>MLF Project Number</b>	ARG/FUM/36/INV/129
<b>UNDP Project Number</b>	ARG/02/G61
<b>Project Title</b>	Methyl bromide phase-out in tobacco and non-protected vegetable seedbeds in Argentina
<b>Implementing Agency</b>	United Nations Development Programme (UNDP)
<b>Executing Agency</b>	Instituto Nacional de Tecnología Agropecuaria (INTA); Oficina del Programa Ozono (OPROZ), Secretaría de Ambiente y Desarrollo Sustentable
<b>Funding Agency</b>	Multilateral Fund of the Montreal Protocol
<b>Project Approval Date</b>	March 2002
<b>Project Completion Date</b>	December 2006
<b>Total budget approved (in principle) (US \$):</b>	US\$ 3,588,000
<b>Year 1 disbursement (tranches 1 &amp; 2):</b>	US\$ 1,720,000
<b>Year 2 disbursement requested (tranche 3):</b>	<b>US\$ 467,000</b>

### 1b. PROJECT OBJECTIVES

This project is designed to phase-out all remaining soil uses of methyl bromide in tobacco seedbeds and open-field (non-protected) seedbeds of vegetables: tomato, pepper, eggplant and others. It covers all the remaining soil uses of MEBR in Argentina. In these sectors, MEBR is used by many thousands of farms (about 80% small and medium peasant farms) in 12 Provinces, covering a large area of diverse climates from cool Patagonia in the south to Misiones in the tropical north. The MEBR users will adopt three successful alternatives identified by the demonstration project (ARG/FUM/26/DEM/79): the floating polystyrene tray system, non-float plastic trays and metam sodium. The project will be implemented at the local level with farmers' cooperatives purchasing and disbursing relevant agricultural equipment and materials, and will be implemented a thorough training and extension program for approximately 73,200 farmers and labourers (average of two labourers for each 24,400 growers). It will be accompanied by policy measures to ensure that MEBR used in the tobacco and open field vegetable sectors will be phased out permanently.

The first phase of the Methyl Bromide Phase-out Project targeted the phase out of 29 ODP tonnes of methyl bromide used in the aforementioned sectors in Argentina, as well as the development of strong project support and mechanisms for ensuring stakeholder commitment, that will enable the necessary phase out activities to continue in future phases of the project. The approved budget for Phase I included funding approved for the years 2001 (US \$220,000) and 2002 (US \$1,500,000), representing a total budget approval of US \$1,720,000.

## **2. SUMMARY OF YEAR 1 ACTIVITIES (April 2002 – March 2003)**

In 2002, the Instituto Nacional de Tecnología Agropecuaria (INTA) and the Oficina del Programa Ozono (OPROZ), of the Secretaría de Ambiente y Desarrollo Sustentable, with the assistance of UNDP, launched implementation of a project to phase-out the uses of MEBR in the tobacco and field vegetable seedbeds in Argentina. As a result of the economic crisis faced by Argentina, project implementation developed in a very different environment than had first been envisioned during the early stages of the project design process, introducing new situations that had to be carefully considered during the development of the Year I work programme. Large devaluation of the national currency (370%) forced some farmers to reduce the tobacco production area and/or not use a soil fumigant, which contributed favourably to reducing overall imports of MeBr. Despite the very difficult economic situation, the project worked hard to gain full support of Argentine counterparts who showed themselves to be very committed to the project objectives, making significant in-kind contributions in order to maximize availability of funds and materials to the greatest numbers of MB users possible.

### Activities implemented and achieved April 2002 - 31 March 2003

- Establishment of the Project Team;
- Development of detailed work plans and regional plans in the regions of Tucumán/Catamarca, Misiones/Corrientes, Salta and Jujuy;
- Active monitoring of MEBR imports and uses;
- Dialogue sessions with stakeholders in all the regions;
- Agreements signed with the governments of the 7 tobacco growing provinces;
- Commitments to fully replace MeBr up to 2007 signed by nearly all tobacco sector stakeholder organizations;
- Training of growers and technicians on alternatives, building on that initiated within the context of the demonstration project (ARG/FUM/26/DEM/79);
- Counterpart contributions received for procurement and distribution of materials and equipment;
- Dissemination of materials and information on alternatives to farmers in 2002;
- Bidding process for procurement of equipment covered by grant funding;
- Procurement of equipment and inputs for 2003 season;
- Awareness-raising activities at agriculture schools in tobacco producing areas;
- Development of a first phase of a “methyl bromide free crop” protocol;
- Development and implementation of a media campaign for awareness-raising;
- Inclusion of project-related information as part of the public activities sponsored on International Day to Protect the Ozone Layer (16 September 2002); and,
- Organisation of a national forum with the tobacco sector to discuss national policy development.

The activities were implemented according to the project’s operative plan. The project was launched in mid-May 2002 at the start of the crop season, during an official signing ceremony that included both public and private sector participants. Given that approval by ExCom occurred in



March and that the seedbed season begins in May, this did not allow sufficient time to access grant funds approved by the MLF in order to conduct the bidding process for procurement of equipment and materials required for the 2002 seedbed growing season. In spite of this, in areas where alternatives had been well received during the implementation of the demonstration project, important in-kind counterpart investments were obtained (as stated in the investment project document), and these permitted the project to achieve the targeted MeBr reduction in 2002.

The project succeeded in surpassing the elimination target of 29 ODP T required by the project's Agreed Conditions. The project team made significant efforts to ensure that reductions achieved through the project's implementation during 2002 and early 2003 were sustainable permanent reductions that can be subtracted against Argentina's national aggregate consumption of MEBr. The project team was especially focused on ensuring such sustainable reductions given the very difficult economic situation that Argentina faced during 2001 and 2002 including, important devaluation of its currency, sharp increases in prices resulting from this devaluation, inability to secure external loans, all of which resulted in a global decrease in imports of all goods to just 39% of the level they had been in 2001.

Not surprisingly, this economic crisis had a significant impact on the agricultural sector. Although production continued as best it could, many growers that are traditional users of MeBr were forced to reduce dosages in order to reduce costs, or simply not use any pesticides at all – neither MeBr nor other alternatives – with consequent negative impact on crop survival and quality.

While the national overall consumption of MeBr dropped in 2002 partly as a result of the economic crisis, this economic situation is temporary and very largely reliant on external factors. A recent strengthening in the economy, and preliminary data that indicates increasing imports of MeBr, are factors that indicate that more normal patterns of MeBr use may start to return during the 2003 growing season.

### 3. MeBr CONSUMPTION OVERVIEW

Table 1, below, provides a summary of historical MeBr consumption in Argentina (excluding QPS) as has been reported to the Ozone Secretariat.

**Table 1: MeBr imports in Argentina (ODP-tonnes)**

Year	MeBr imports (ODP-tonnes)
Baseline (1995-98 average)	411.3
1999	468
2000	466
2001	362.1
2002 *	168.6

\* Imports of MeBr for 2002 total 168.6 ODP-t (281 MT). However, consumption (excluding QPS) in that year came to a total of 298.8 ODP-t (498 MT), as it has been officially reported.

Argentina's MeBr baseline, as calculated by the Ozone Secretariat, is 411.3 ODP-t and consumption in 1999 was 468 ODP-t. MeBr imports during 2000 were 466 ODP-t and in 2001, dropped to 362.1 ODP-t, when the economic recession started. Total MeBr imports for 2002 indicate that Argentina has stayed within the national aggregate limit of 376.7 ODP-t called for in the project's Agreed Conditions. While part of this reduction was due to the economic recession (and is therefore temporary and not related to the project activities), part of the MeBr reduction was a direct result of the activities of the project and counterpart commitments, which resulted in permanent elimination of more than the required 29 ODP-t.

In accordance with the project agreement, the Argentine government committed to phase-out **29 ODP-t** of consumption in the tobacco sector during Year I implementation activities. According to the information provided above and highlighted by the figures presented below, the project surpassed its target, achieving a phase-out of **53.6 ODP-t**. It is important to note that this achievement should be assessed separately from the national reduction in MeBr use that resulted from the impact of the economic crisis on national planted area. This is explained below.

The total reduction in MB that occurred in the tobacco sector in the period 2000-2002 was 113 tonnes (ie. 268 t in 2000, decreasing to 155 t in 2002), as shown in Table 2. However, the important question is how to determine what part of the MB reduction resulted from the adoption of alternatives (ie. permanent elimination of MB due to the national project) and what part was due to the economic recession (ie. temporary reduction in MB due to economic circumstances). We have resolved this question by conducting a detailed analysis (based largely on survey results in the tobacco provinces) to determine the MB consumption, tobacco area that has adopted alternatives, and the total area of tobacco production. This method permits us to determine project impact reliably, because it identifies the area that has adopted alternatives in the tobacco sector, a result of the combined efforts of the project team and counterparts (following counterpart commitments made in the project document).

**Table 2: Methyl Bromide Phased-Out in 2002 in tobacco production provinces**

Province	Consumption 2000 *		Consumption 2002 **				MeBr phased-out (tonnes)	ODP-t phased out (ODP-t)
	Area using MeBr (hectares)	MeBr consumption (tonnes)	Area using MeBr (hectares)	Area that has adopted alternatives (hectares)	Total area (hectares)	Estimated MeBr consumption (tonnes)		
<b>Tucumán (1)</b>	5,833	21	3,640	2,260	5,900	13.21	8.2	4.9
<b>Jujuy (2)</b>	19,444	70	11,616	4,884	16,500	42.16	17.7	10.6
<b>Salta (3)</b>	17,222	62	14,030	1,770	15,800	50.92	6.4	3.85
<b>Corrientes (4)</b>	5,555	20	5,626	174	5,800	20.42	0.6	0.3
<b>Chaco (5)</b>	1,110	4	850	-	850	3.08	-	-
<b>Misiones (6)</b>	24,400	88	6,043	15,657	21,700	21.93	56.3	34.1
<b>Catamarca (7)</b>	833	3	950	-	950	3.44	-	-
<b>GENERAL TOTAL</b>	<b>74,444</b>	<b>268</b>	<b>42,755</b>	<b>24,745</b>	<b>67,500</b>	<b>155</b>	<b>89.7</b>	<b>53.6</b>

\* 74,444 hectares relied on MeBr from a total of 78,360 hectares of tobacco (data stated in the Prodoc)

\*\* 67,500 hectares were planted with tobacco (unofficial figures)

<sup>1</sup> Based on a project survey of over 1,389 growers (77% of the total) in 2002

<sup>2</sup> Source: Fernandez G.S. "Diversidad e Innovación: el uso de tipologías para adecuar el cambio de prácticas en la desinfección de almácigos en los sistemas de producción tabacaleros de Jujuy"; November 2002

<sup>3</sup> Based on a project survey over 449 growers (46%) of a total 959 in 2002

<sup>4</sup> Estimate based in information of the Instituto Provincial del Tabaco

<sup>5</sup> Estimate based in information of the Ministry of Agriculture of Chaco

<sup>6</sup> Information based on data from the Cooperativa Tabacalera of Misiones, and Tabacos Norte, Standard Tobacco, Blasa and Cima local tobacco companies.

<sup>7</sup> Based on a project survey of the total 181 growers that planted tobacco in 2002

#### 4. RESULTS OF ACTIVITIES TO DATE

The following sections describe key activities and results.

##### a) Organization of the project activities

Regional teams were formed to coordinate and implement the project activities in each region, as listed below. The implementation of the project under the leadership of regional project teams enhances the sustainability of the project. Local regional experts, familiar with local agricultural practices and growing conditions, work to provide specific and focused training in alternatives which in turn, allows for the establishment of local knowledge networks and enhanced capacity development. In addition, the high level of involvement on the part of INTA is demonstrative of the importance that the government places on the successful and sustainable implementation of a project that targets an important economic sector for Argentina.

###### Jujuy regional team:

Juan Regazzoni (coordinator)\*  
Gabriela Fernandez \*  
Mario Aprile\*  
Carlos Burgos\*\*  
Carolina Fascio\*\*

###### Salta regional team:

Daniel Fernández (coordinator)\*  
Santiago Arias\*\*  
Simón Burgos\*\*  
Fernando Soria\*\*  
José Arias\*

###### Misiones/Corrientes regional team:

Alberto Sosa (coordinator)\*  
Marcelo Mayol\*  
Mario Kryvenki\*  
Evaldo Steger\*\*

###### Tucumán/Catamarca regional team:

Cristina Biaggi (coordinator)\*\*  
Omar Triadani \*  
Angeles Namur\*  
Daniel Rossi\*

###### National Coordination team:

Alejandro Valeiro (national coordinator)\*  
Héctor Muela\*\*  
Julio Agüero\*  
Carolina Corvalán \*\*

(\* INTA personnel / \*\* personnel contracted by the project)

Although work in the tobacco sector was launched in all sectors in 2002, it was decided that for year one, only the Tucumán province would work on the field vegetables sector. This was in order to build experience that could be transferred to the other regions in 2003 and onwards. The underlying reason for this was that the previous demonstration project had focused on the tobacco sector, not field vegetables. As a result, the national project team needed to undertake further developmental work in vegetable production using alternatives to MeBr before transfer of expertise and adoption could begin in earnest. The primary focus of the training work in the project this year was therefore, in the tobacco sector.

##### b) Elaboration and approval of detailed plans

Once the regional project teams were established they in turn, and in collaboration with stakeholders in each tobacco producing province, developed detailed work plans for each of the project intervention areas, outlining detailed lists of activities, goals and timetables. In addition, detailed budgets for each region were spelled out, as were roles and responsibilities. The stakeholders, through provincial Consultative Committees whose membership included grower's

organizations, local government representatives, the regional project team and representation from the national team, then approved these regional work plans.

Regional teams met on a weekly basis to review, and if necessary, revise planned activities, as well as to evaluate results. The national team held quarterly evaluation and planning meetings.

### c) Training growers and technicians

Despite the difficult national circumstances, it is important to note the remarkable advance that resulted in achieving the project goals. A key reason for the success lay in the previous constructive work that had been undertaken during the demonstration project, as well as the joint work and collaborative approach adopted with other institutions including, the National Secretary of Agriculture, provincial ministries and secretaries of production and environment, in addition to the tobacco sector.



*Training of trainers in Tucumán*



*Field training on transplant results in Catamarca*

During 2002, 5 train-the-trainers' courses were implemented and 97 training field days were organized. To date, the project has trained 2,762 growers. The project as a whole is scheduled to train in the order of 24,400 growers in total. The table below highlights the number of training sessions and awareness-raising activities hosted in 2002e, and indicates the number of participants involved.

**Table 3: Summary of training courses implemented in Year 1**

	<b>Misiones/ Corrientes</b>	<b>Salta</b>	<b>Jujuy</b>	<b>Tucumán/ Catamarca</b>	<b>TOTAL</b>
Number of training field days and meetings	63	10	8	16	<b>97</b>
Number of trained growers	1,993	284	107	281	<b>2,762</b>
Number of courses for technicians	---	1	2	5	<b>8</b>
Number of trained technicians	---	17	29	68	<b>114</b>
Number of school awareness sessions	8	6	5	5	<b>24</b>
Number of participating students	395	923	116	250	<b>1,684</b>

As the data in the table above demonstrates, the rhythm of implementation and uptake varied from region to region. This was to be expected and indeed, had been highlighted within the context of the project document approved during ExCom 36. For example, in Misiones the small growers (nearly 15,000) are very interested in new technologies and new production methods and are more open to accepting such changes, so the project made excellent progress in this region despite the large challenges involved in training and visiting many small-scale growers. In contrast, due to the larger tobacco areas planted by each grower in Salta, technological innovations require much larger capital investment per farm, making them reluctant to make such investments in a crisis environment. In addition, a requirement of tobacco companies for reconverting the Virginia tobacco curing systems, due to a nitrosamine problem in the leaves, has recently obliged growers of Salta and Jujuy to make significant investments in that respect. They informed the project team that they were not able to make additional changes in their production procedures during Year I due to economic constraints. As a consequence, the project trained fewer growers in these regions during Year I. However, further work will be done in these areas in future years.

It was therefore, considered logical to focus first on the regions like Misiones which have the largest number of growers and where solid progress could be made during the first year of implementation. By exercising this flexibility, the project was able to remain on track with the total numbers of growers trained to date.



*Group production of floating seedbeds in Misiones*



*Training small farmers of Catamarca in floating seedbed production*

**d) Acquisition and distribution of equipment and materials**

As previously mentioned, the project received approval in March 2002 and disbursement of the first and second tranches of funding was not possible until nearly mid-year. Owing to this fact, the project team was not in a position to carry out bidding and procurement of the materials and equipment using grant funding to meet the seedbed season starting in May 2002. Hence, investment in materials and equipment made during Year I activities were the result of important counterpart contributions described in the project document.

Counterpart contributions, in material inputs and investments, as outlined below, serve to demonstrate the strong commitment of the tobacco sector - despite the economic crisis - in working with the project and phasing-out MeBr, particularly in some provinces.

**Table 4: Summary of counterpart contributions (Year 1)**

<b>{PRIVATE}Origin of funds</b>	<b>Misiones</b>	<b>Tucumán</b>	<b>Salta</b>
Government (Fondo Especial del Tabaco)*	725,200 US\$	184,600 US\$	-

Tobacco companies and cooperatives **	1,750,000 US\$	160,000 US\$	-
Growers ***	294,000 US\$	112,100 US\$	152,000 US\$
<b>TOTAL</b>	<b>2,769,200 US\$</b>	<b>456,700 US\$</b>	<b>152,000 US\$</b>

\* Official figures from the Federal Ministry of Agriculture/Fondo Especial del Tabaco

\*\* Estimate based on materials contributed by tobacco companies and cooperatives

\*\*\* Estimate of hand labour and pool construction materials and other inputs

The bulk of growers that adopted alternatives in 2002 received some financial support to cover the costs of materials from either the government or the tobacco sector, and was trained and received technical assistance with MLF project funds during the seedbed season. Following training activities, materials were distributed to farmers and their proper use was supervised and ensured by trained extensionists who made follow-up visits to the farms. This distribution was made in both the tobacco and vegetable sectors.

The bidding and procurement of equipment and materials that needs to be purchased with MLF funds is underway for the 2003 seedbed season. The process of international tendering for the 2003 season was launched in December 2002 and will be finalized in early May 2003. The quantities and breakdown of some the materials ordered and distributed by region are detailed in the table below.

The procurement situation faced during 2002 will change in 2003 as the MLF project funds dedicated to procurement of equipment and materials have been committed. The process of international tendering for the procurement of inputs for alternatives for the 2003 season was launched in late December 2002 and will be finalized in early May 2003. The quantities and breakdown of some of the materials ordered and distributed by region are detailed in the table below:

**Table 5: Materials and equipment procured by project in Year 1 (for 2003 seedbed season)**

Province	Polystyrene trays (units)	Cost (US\$)	Substrates (litres)	Cost (US\$)	Plastic sheets (metres)	Cost (US\$)
Salta	152,000	110,960	760,000	91,432	346,900	84,678
Tucuman	85,000	62,050	425,000	51,130	550	134
Catamarca	4,250	3,103	21,250	2,556	3,700	903
Chaco	2,240	1,635	12,320	1,482	9,000	2,197
Jujuy	190,500	139,065	952,500	114,591	33,600	8,202
Corrientes	1,600	1,168	19,360	2,329	96,800	23,629
Misiones	10,638	7,766	2,583,460	310,804	-	-
<b>TOTAL</b>	<b>458,558</b>	<b>334,747</b>	<b>4,835,540</b>	<b>581,715</b>	<b>490.550</b>	<b>119,743</b>

As was stated in the project document, the cost of trays and substrates is high in Argentina, largely because they have to be imported. Due to the devaluation of the national currency, in 2002 every imported product was much more expensive than it was the previous year. This new situation led the project team to prioritize and accelerate the planned actions seeking national production of the main inputs for the alternatives. The project team is working jointly with substrate suppliers to develop and test new formulas according to the tobacco sector needs, and designing specifications and quality control measures to ensure that a sustainable local substrate industry can be developed in the near future.

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imported product was much more expensive than it was when the project document was written. This new situation led the project team to urgently accelerate the planned actions to promote national production of the main inputs for the alternatives (as listed in the work activities of the ProDoc). As a result of this work, polystyrene trays are due to be produced in Argentina for the 2003 season, hopefully in sufficient quantity to meet the project needs during 2003. This has allowed the unit cost of trays to be reduced to approximately US\$ 0.72 per tray. However, fluctuations in the Argentine economy, as markets re-stabilise following the crisis, make it very difficult to predict what price trays may be procured at in future. For example, during finalization of purchase of trays in March 2003, a price of US \$0.72 per unit was obtained. In comparison, according to recent developments in the exchange market (devaluation of US dollar) the cost of the same trays in May 2003 was quoted at US \$0.81 per unit.

The project team continues to work with substrate suppliers to develop and test new formulas according to the tobacco sector needs, and designing specifications and quality control measures to ensure that a sustainable local substrate industry can be developed in the future.



*Appropriate technologies for managing  
Application of alternatives are being developed*



*A new local-made substrate  
is being tested for tobacco seedlings*

The aforementioned activities are strong indicators of project sustainability at the national level.

#### **e) Summary of Cumulative Project Progress**

The project has worked intensively with growers and the tobacco sector during 2002, as well as in the previous demonstration project, and important efforts have been made to replace the use of MeBr. The result of these efforts, combined with the receipt of inputs through counterpart contributions is that alternatives have been adopted on part of the tobacco production area and this work will continue until alternatives have been adopted on the entire tobacco area and all MeBr in the sector has been phased out.

#### **f) Awareness-raising**

The organization of awareness-raising campaigns was the initiative of, and was coordinated by, the Communication's team of the INTA/UNDP project.

- National public interest campaign

A major awareness raising media campaign was developed. As this was a public interest campaign, the project was able to use the "National Radio and TV Network" without any transmission cost.

Message: "We are still on time; protect our future; protect the ozone layer"

Duration: 10 days, from September 14 to 24.

TV: a 30" advertisement, 4 times per day on each of the 81 open TV channels from the main provinces; 5 main open TV channels of Buenos Aires and 3 main national cable news' channels.

Radio: a 30" advertisement in 365 radio stations throughout the country, including Buenos Aires.

- September 16 Campaign

The campaign aimed to explain the need for protecting the ozone layer and the objectives and activities oriented to replace the use of methyl bromide. Interviews were coordinated with reporters from a large Number of media:

TV: 3 national cable channels; 2 open TV channels from Buenos Aires.

Radio: 45 AM and FM radios all over the country.

Newspapers: 1 national, 4 local, 1 Latin American.

News' Websites: 2

E-mail: a message was sent to 11,000 subscribers of INTA mailing lists. 83 queries seeking additional information and advice were received and answered.

INTA's President, National Director, the Regional Director for the Northwest, the National Director of Environment, the Ozone Unit coordinator, and the national coordinators of both UNDP and UNIDO projects took part in this campaign.

- Awareness raising activities were also made in rural primary and secondary schools where the bulk of students are the children of growers and tobacco workers.
- In addition to these targeted campaigns continuous awareness actions are taken through the media in each region and at the national level. An example was the main report in the Sunday magazine of the most popular newspaper in Argentina (Clarín, November 17, 2002).



*Awareness raising meeting in Misiones*

**g) Communications strategy**

- Leaflets, manuals, and other diffusion materials were produced and distributed in each region.
- Information was produced, and a 0800 toll free telephone Number was provided to answer growers' questions.
- A manual describing how to produce tobacco seedlings in floating seed trays was developed and disseminated.



- The project website was renewed (<http://www.inta.gov.ar/prozono/>) and new content was included.



## h) Policy discussions

Twenty-six multi-stakeholder policy dialogue meetings were held with local authorities in all the seven tobacco production provinces, including growers, grower’s organizations, tobacco companies, and national governmental agriculture institutions. Main issues on the agenda include: presentation of the project and its objectives; explanation of the agreement between Argentina’s government and the Multilateral Fund of the Montreal Protocol; and, the need to complement the project’s resources with in-kind labour and financial resources.

The need for a specific agreement between INTA and each local government – involving the local tobacco private sector - was stressed, and a draft model was designed and discussed. The idea of signing a joint government/tobacco sector “commitment for protecting the ozone layer” was also presented. Such a document endorses the phase-out calendar and includes a commitment on the part of the local government and industries to gradually reduce their MeBr consumption, distribution or acceptance of MeBr-based products, ending as of January 1<sup>st</sup>, 2007.

This series of regional meetings culminated in the First National Meeting for Replacing Methyl Bromide in the Tobacco Sector, which was held September 19, 2002 at the offices of the National Secretary of Agriculture (SAGPyA) in Buenos Aires. Thirty one representatives from local governments in the producing provinces, main grower’s organizations, and all the tobacco companies took part.

The main conclusions of this meeting were:

- Support for the phase-out calendar already agreed to by the national government;
- Agreement that floating seedbed systems are the best alternative, with emphasis placed on the strong requirement to identify lower priced components in order to ensure sustainability;
- Need to develop a research strategy to develop cheaper components to replace imported components for the alternatives, again to ensure sustainability;

- Support from the tobacco sector for the installation of alternatives and the continued commitment to do so. They are making contributions to the project according to the Counterpart Contributions described in the project document.
- Support for two sets of agreement: one between INTA and each local government, including local private sector tobacco companies; and, two, “commitment for protecting the ozone layer”.

It is expected that by May 2003, all the agreements with the tobacco producing provinces will have been signed, and the same is expected with the “commitments for protecting the ozone layer”. The signature of these commitments is of central importance to control the supply side of methyl bromide, since some provincial governments finance MeBr to their growers. The same happens with cooperatives and tobacco companies. The main local tobacco companies have already signed the commitment to no longer distribute MeBr, based on the understanding that the phase-out project will proceed as stated in the approved project document, and actively support the efforts to phase out this ODS.

#### 5. PROJECT EXPENDITURES AND PENDING OBLIGATIONS (as at 31/03/03):

<i>Budget line</i>	<i>N° of budget line</i>	<i>Total approved budget (1 st. tranche)*</i>	<i>Disbursements during Year 1</i>	<i>Funds obligated during Year 1</i>
<b>Administrative Support</b>	13.01	5,462	2,408	3,054
<b>Local travel</b>	15.01	25,171	16,470	0
<b>Transportation costs (internal)</b>	16.01	4,977	1,698.89	3,278
<b>Audit costs</b>	16.97	5,000	-	5,000
<b>National Project Manager</b>	17.01	5,889	3,182	2,708
<b>National Consultant</b>	17.02	12,924	6,241	6,672
<b>National Consultant</b>	17.03	11,422	5,471	5,951
<b>National Consultant</b>	17.04	10,334	3,834	6,501
<b>National Consultant</b>	17.05	11,422	5,471	5,951
<b>Extensionists</b>	17.06	125,896	8,221	112,111
<b>Growers training</b>	32.01	54,315	38,800	15,545
<b>Training of trainers</b>	32.02	9,000	0	9,000
<b>Planning meetings</b>	34.01	8,000	3,012	4,988
<b>Consultative meetings</b>	34.02	8,000	1,200	3,000
<b>Consumable equipment and inputs</b>	45.01	1,378,843	1,197,749	0
<b>Non Consumable equipment and inputs</b>	45.11	5,343	19,221	13,276
<b>Miscellaneous/Sundries</b>	53.01	32,688	11,094	21,594
<b>Exchange rates differences</b>	85.05	5,288	0	5,288
<b>Total</b>		<b>1.720,000,00</b>	<b>1,324,073</b>	<b>223,917</b>

As was outlined in Section 4 d), in Year I the counterparts made substantial contributions in material inputs and investments in order to not delay implementation at the technical level, thus underlining the commitment of the Argentine tobacco sector in phasing-out MeBr, particularly in some provinces.

## **6. YEAR 2003 PROPOSED WORK PROGRAMME**

Following the approval of the Executive Committee of the Montreal Protocol on the disbursement of the second tranche of funding (US\$ 467,000), the project will proceed with implementation of the following work programme to achieve further MB reductions:

1. Continuation of the train-the-trainers programme, training at least 50 extensionists;
2. Storage and distribution of materials and equipment to the growers for the 2003 season;
3. Administration of the field operations by the project site engineers;
4. Training of at least 4,900 growers and 10,000 workers. Activities will be concentrated in Salta, Jujuy, Corrientes and Chaco where fewer growers have adopted the alternatives. Begin training of vegetables growers in different areas;
5. Continue awareness-raising activities with a new mass media campaign and local outreach events;
6. Continue the production of training materials and publications for growers and extensionists;
7. Continue with actions aiming to reduce the cost of inputs for floating trays systems;
8. Continued coordination with the Secretary of Environment to design the new regulation controlling imports of methyl bromide for the coming years; and,
9. Purchase and storage of inputs and equipment to the growers for season 2004.

During the 2003 tobacco growing season, the project will eliminate an additional 21 ODP T, as required by the project agreement, and will sustain the current reduction in MeBr consumption. Work will be focused in provinces where reductions during Year I implementation were less significant, and in areas in the open-field vegetables' sector where MeBr consumption is concentrated.