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# REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT OF TOBACCO CONTROL (FCTC)

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Economic and social impact quantification  
in tobacco producing provinces



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in tobacco producing provinces



**ARGENTINA**  
Con vos, siempre.



Ministerio de  
Agricultura, Ganadería y Pesca  
Presidencia de la Nación

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## PREFACE





## PREFACE

In Argentina, the Tobacco industry represents an important activity in terms of production, economic and social impacts on different regional economies. Particularly, there are seven tobacco producing provinces: Misiones, Salta, Jujuy, Chaco, Catamarca, Corrientes and Tucuman. Four of them have a high share of the tobacco industry in the Gross Geographic Product and many departments and localities rely almost entirely on the tobacco industry.

It is also a source of fiscal revenue for the Government and the provinces, and an important generator of labour.

But besides the generation of added value in the above economies, the tobacco growing has historical roots, the tobacco permanently installed in the collective imaginary, passed on from generation to generation within the family, the habit of tobacco growing as a way of life, and in many cases as a way of livelihood.

Is in this sense that the global and local trend to discourage tobacco industry undoubtedly impact negatively on these regions, not only in terms of added value but also in the way that producers find to carry out their economic activity within today's society.

The target of this study is to analyze the impact it would have on tobacco-producing areas of Argentina implementing the measures agreed in the Framework

Convention Tobacco Control (FCTC) of the World Health Organization (WHO). For this purpose it was commissioned the analysis of this problem to the economic team of "Economy and Regions" entity that performed the task with dedication, simplicity and depth, thus allowing to develop clear and detailed analysis of the issues raised.

To achieve this objective, the evolution of various campaigns up to now will be discussed taking the most significant figures in the provinces where the activity occurs. That means it will quantify social and economic impact that would occur in the provinces mentioned above in the event that we get to the ban on tobacco growing.

The study is structured into different sections, which will allow the reader to understand the scope of the rules that regulate the activity, awareness of the importance of it in different provinces engaged in the tobacco growing, know the position of our country in the international market as an exporter and importer of various products of tobacco, and also see the prospects in demand, both locally and externally, of different products, to finish analyzing the feasibility of diversification of production in different alternative activities. This action is not so easy to carry out as above mentioned, since usually the substitute activities with

similar occupation requirement have very limited markets and - unlike tobacco- produce export quality products, another volume to the domestic market and usually remain unsuitable products for direct consumer market, but are useful for industrial processing (fresh, canned, dried, etc.) that requires heavy investment in industry and training, this generates investments that up to date no one has defined who will provide funds, especially since in all meetings of WHO it has specifically said that did not have the funds necessary to realize this action. Funds, which given the current international crisis seem increasingly remote.

The study begins, specifically with an introduction to be followed under paragraph 2, where describes the tobacco industry in Argentina analyzing the different campaigns. Then it describes the value chain of the tobacco industry (tobacco farms, businesses, leaf-buying companies, manufacturing and distribution and retailing), in particular in our country, and also analyzes the tobacco consumption.

In Section 3 examines the socio-economic importance of the tobacco industry in Argentina, both at product level, labour employed by the sector, externally, as well as the fiscal contribution of the sector in Argentina's economy.

Section 4 presents a selection of crops to be a substitute of tobacco in the tobacco growing provinces, analyzing not only the differences in added value that would leave in the economy, but also in terms of labour requirements. Particularly, we analyze the possible diversification with corn, tea, citrus, stevia, white beans, soy and cotton, concluding in the section that nowadays there is no activity that generates labour requirements as does the tobacco industry.

The main body of the study ends with a series of final comments and a selection of the most important numbers to summarize in some pages the subject under review.

This document has also an annex, which contains a thorough analysis of the tobacco industry in each of the provinces that depend on it.

The above mentioned is followed by the bibliography and websites consulted for the realization of the report, after which there are two appendices. The first methodological, which contains the various tools used for the construction of the data and some definitions used in the main body of the study.

It concludes with the second statistical appendix where is displayed in tabular form all the information contained in it.

**Ing. Agr. Eugenio F. Corradini, M.S.**

Coordinator of the Reconversion  
of Tobacco Areas Program



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## CONTENTS

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# CONTENTS

Preface .....	VII
Introduction .....	3
<b>Tobacco industry in Argentina</b>	
Tobacco production in Argentina.....	5
Tobacco value chain .....	8
Tobacco farms .....	9
Leaf-Buying companies .....	10
Manufacturing companies.....	10
Distribution and retail.....	12
Tobacco consumption	
In Argentina .....	13
In the World .....	16
<b>The importance of socio-economic tobacco industry in Argentina</b>	
Tobacco importance in the product.....	19
Tobacco importance in employed labour.....	20
Tobacco importance in the Argentine foreign sector.....	24
Fiscal (or Tax) contribution of the tobacco industry .....	27
<b>Replacement and diversification in the tobacco areas of Argentina</b>	
Burley tobacco (Misiones Province) .....	32
Virginia Tobacco (Salta and Jujuy Provinces).....	34
<b>Final comments .....</b>	<b>38</b>
To sum up .....	42

**Anex I****Tobacco activity analysis by province**

Misiones Province.....	45
Salta Province .....	50
Jujuy Province .....	55
Corrientes Province.....	60
Tucumán Province.....	64
Chaco Province.....	67
Catamarca Province.....	69

**Methodological appendix**

Labour primary tobacco sector .....	75
Monetary value of production (market price+ SFT).....	76
Calculation of the fiscal contribution of the tobacco industry within each province .....	76

**Statistical appendix**

<b>Table 1.</b> Evolution of the planted and harvested area, production and yield (National). Campaigns 1989-2010.....	79
<b>Table 2.</b> National Participation by type of tobacco. Campaigns 2009/2010 .....	80
<b>Table 3.</b> Provincial Share of tobacco production. Campaigns 2009/2010 .....	80
<b>Table 4.</b> Changes in the number of producers per province. Campaigns 2009/2010 .....	80
<b>Table 5.</b> Production by type of tobacco per province. Campaigns 2009/2010 .....	81
<b>Table 6.</b> Evolution in domestic cigarette consumption. Period 1910-2010.....	81
<b>Table 7.</b> Evolution of the planted-harvested area, production and yield (Misiones) Campaigns 1989-2010.....	84
<b>Table 8.</b> Evolution of the planted-harvested area, production and yield (Salta) Campaigns 1989-2010.....	85
<b>Table 9.</b> Evolution of the planted-harvested area, production and yield (Jujuy) Campaigns 1989-2010.....	86
<b>Table 10.</b> Evolution of the planted-harvested area, production and yield (Corrientes) Campaigns 1989-2010.....	87
<b>Table 11.</b> Evolution of the planted-harvested area, production and yield (Tucumán) Campaigns 1989-2010.....	88
<b>Table 12.</b> Evolution of the planted-harvested area, production and yield (Chaco) Campaigns 1989-2010.....	89
<b>Table 13.</b> Evolution of the planted-harvested area, production and yield (Catamarca) Campaigns 1989-2010.....	90

**Bibliography**

Websites consulted.....	93
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# REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)

## INTRODUCTION

The target of this study is to analyze the impact that would have on tobacco-producing areas of Argentina implementing the measures agreed in the Framework Convention Tobacco Control (FCTC) of the World Health Organization (WHO).

The agreement, signed on May 21, 2003 and entered into force on February 27, 2005, focuses on various tobacco control policies such as the tax increase on all tobacco products, even including those who do not smoke, restriction or prohibition of advertising and marketing of these products and finally, the constraint of producing tobacco smoke in public places.

In Argentina, tobacco represents an important activity in productive, economical and social terms for different regional economies. The producing provinces are seven. Four of them have a high share of the activity in the Gross Geographic Product and many departments rely almost entirely on the tobacco industry, so replacement requires a sharp analysis not only economic, but also fiscal and social.

In this sense, tobacco replacement for

other activities, such as other agricultural crops, it is not so practicable in light of:

- Agricultural labour high demand for tobacco cultivation (between 70 and 120 wages per hectare), hence its replacement would affect the community of workers in the area.
- Productive structure, since in many cases the small scale allows to consider only alternative activities that meet certain characteristics such as: intensive labour / capital, with a new production technology and a certain degree of transformation / processing and a demanding market in volume and quality, to give products that generate income equivalent to tobacco.
- The income level generated by this activity, both at the primary producer and the value chain marketing, and tax revenues generated in countries, the average level of taxation is higher than 60 % of sales value of the product.
- The intrinsic character of the destination of primary production, since in this product 100 % of the produce is purchased by the applicant, with no portions of the product remain-

ing unsold and without having to define a differential treatment of the primary product, while in any other fruit-vegetable product part of the production is suitable for the international market, another percentage goes to domestic market and there is always a balance to be industrialized if you want to market. Just by 2010/11 restrictions were presented to this general rule, to continue operating in this way would involve a review of the prevailing marketing system, this campaign also showed price differentials between different leaf-buying companies, situation that was presented twice in the history of tobacco, now seems to get to settle down in the marketing system.

- The productive area concentration, in the particular case of Argentina, except in Burley tobacco from Misiones Province, whose production is spread throughout the province, entire communities condition their income to this activity as the Valle de Lerma-Salta and Jujuy-, and the town of Los Altos in Catamarca, General San Martín in Chaco, Goya in Corrientes and La Cocha in Tucumán. However the Cooperativa Tabacalera de Misiones is located in the town of Alem, the cessation of this activity would deteriorate significantly, the income level.
- In the specific case of Virginia tobacco, developed mainly in Salta and Jujuy, usually produced by larger-scale producers; the primary conditioning system called “green tobacco” is given to the collectors is not so, because to be received it has to be conditioned to obtain a moisture content no greater than 14% and this implies a fast drying process in stoves that requires an investment of around U\$S 15,000 per

unit and that can process the equivalent of about 5,0 hectares of crops. Therefore, a 50,0 hectares producer has a demand of about 10 stoves which means an investment of around U\$S 150,000.0 that would be paralyzed because although it can be used in the drying of other agricultural products; normally these require more sophisticated ovens and their markets are limited.

Consequently, it is understood to pose the following report:

1. Evaluate the negative impact of a decrease (or elimination) of the tobacco activity in Argentina, with special emphasis on social and economic impact in the main towns, and national, provincial and municipal levels fiscal impact.
  - A. Analysis of the population affected by the elimination of the tobacco growing:
    - At primary level, in farming activity itself and hoarding, where the first tobacco processing takes place.
    - In processing industry, as well as in cigarette and/or exporter.
    - In wholesale and retail marketing of the product and its contribution to foreign exchange earnings from exports.
    - In towns, settling of tobacco industry, job loss and / or incomes level of the inhabitants of the area.
    - In activities indirectly related such as input suppliers, services, transport, trade, fuel, etc.
    - In spending and investment of income generated in the tobacco sector.

- B. Decreases in tax revenues:
- Nacionally.
  - At provincial level.
  - Impact of this loss in GDP / GGP of each one of the indicated administrative levels.

2. Production alternatives, market constraints and investment requirements to realize a successful substitution.

This section will address the diversification of production, which is proposed as a solution to the problem, taking it to Argentinean reality: that is, develop the local issues to advance in diversification of production from the requirements it demands: markets destination, training, investment, etc., focusing in that not necessarily other agricultural activities can improve the situation. In this sense, it will look for:

- A. Detect primary sector activities that are impossible to develop in the tobacco regions of Argentina, because they don't satisfy the requirements of labour and / or income earned by tobacco, or whose requirements are not very feasible to develop.
- Identify those activities that can substitute tobacco, regardless of economic analysis and define:
  - Training requirements for labour. Capital requirements. Industrialization requirements. Feasible Target Markets to achieve with a special determination of the maximum volumes that these markets can absorb without deterioration of prices to reach.

Otherwise, even when the WHO is trying to defend the health of consumers, inroads in limiting the consumer

rights, because even while the product is not "healthy" is no different to any other "healthy" consumed in excess.

So it can be stated that scientific evidence makes explicit that consumption of one cigarette per kg. body weight per day involves body pollution levels assimilated by the body (Eng. Balari) and that from the social point of view, other products, such as drugs and alcohol determined by its action on third parts not involved, higher damage to those generated by smoking (Researcher English).

## TOBACCO INDUSTRY IN ARGENTINA

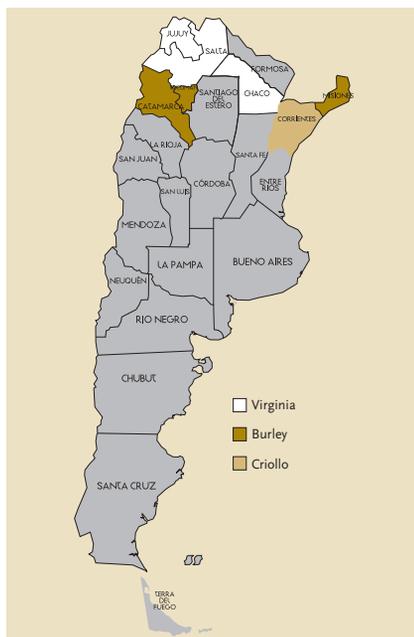
### Tobacco production in Argentina

Tobacco hails from Cuba. It is said that the product of this country is the world's best. This is due to the kindness of the Cuban land as a decisive influence on the unmatched quality of tobacco planted there; increasing their good combustibility, flavor and aroma, therefore, the essential qualities of the cigar nowadays recognized above all others around the world.

In our country, the crop began to develop during the nineteenth century in the provinces of Tucumán, Salta and Corrientes. In the last century, during the '30s expanded to the provinces of Jujuy, Catamarca, Chaco and Misiones.

In the last 5 seasons, the cultivated area of tobacco was between 70,000 to 90,000 hectares, occupying 0.34 % of hectares of the total agricultural production at national level (26,926,895).

In spite of the above, tobacco represents an important activity in productive, economic and social terms in the different regional economies of our country.



Tobacco. Producing provinces.

From a geographical standpoint, tobacco production is concentrated in the Northwest (NOA) and Northeast (NEA) region of our country.

The NOA has highly technified farmers whose target is to take care of tobacco quality. We can highlight that fields

of more than 30 hectares have produced more than 50 % of the total. At national level they contribute more than 77 % of the total tobacco produced.

At the NEA, the productive reality of this area is very different. The most important province is Misiones (22 % of total tobacco produced) where most producers are small farmers using family labour, and where almost 50 % of production takes place in establishments with surfaces up to 2 hectares.

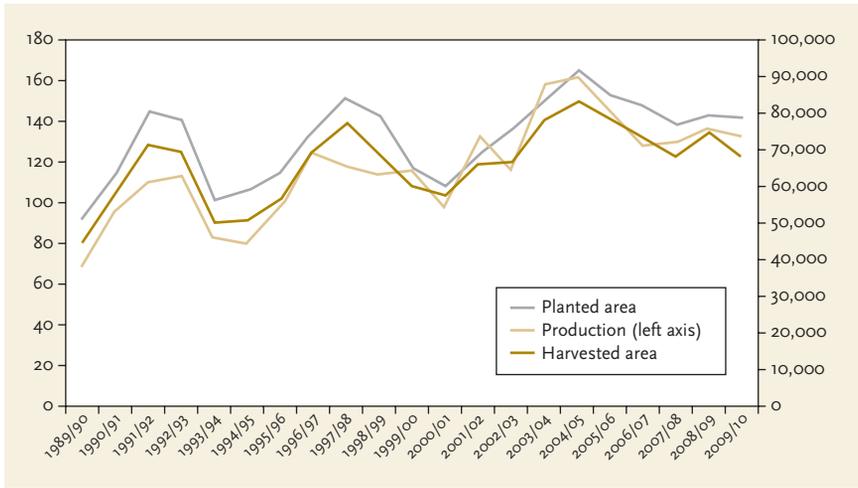
According to the National Agricultural Census conducted in 2002 (CNA 2002) the average size of Argentinean farm was 587 hectares, in the case of tobacco farms the average unit was of 3.67 hectares.

In the past 20 years, the tobacco production in Argentina has shown a positive trend, registering record highest value in 2004-2005 season, reaching 161,063,709 kilos. Since then a decline in production has been shown, with a slight improvement in 2008-2009 season. **In 2009/2010 season the total production reached 132,869,988 kilos.**

According to 2009-2010 season, **production is mostly concentrated in the province of Jujuy with 37.2%, Salta**

Campaign	Area (in hectares)		Production in ton	Yield (kg/ha)	Average price (market price + FET) per kg	Value in thousand of \$ARS (market price + FET)
	Planted	Harvested				
2001/02	68,308	65,988	132,437	2,007	2.61	386
2002/03	75,207	65,702	115,837	1,763	4.32	579
2003/04	83,185	77,587	157,294	2,027	4.03	782
2004/05	91,559	83,169	161,064	1,937	4.14	774
2005/06	84,587	78,255	144,345	1,845	4.67	779
2006/07	81,801	73,267	127,740	1,743	5.38	830
2007/08	76,435	67,498	130,381	1,932	6.91	997
2008/09	79,455	74,547	135,531	1,818	9.15	1,428
2009/10	78,304	67,674	132,870	1,963	9.77	1,532

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



Campaigns 1989-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**34.5%, Misiones 22.1%**, followed further for Tucumán 4,2 %, Corrientes 0.9 % Catamarca 0.6 %, and finally, the province of Chaco with 0.4 %.

Meanwhile, the planted area was 78,304 hectares, of which the largest concentration is in the Province of Misiones (36.5 %), followed by the province of Salta (28.2 %), Jujuy (25.1 %), Corrientes (3.3 %), being in the last position the provinces of Catamarca (0.8%) and Chaco (0.7%).

Analyzing the planted and harvested areas by province in recent seasons, there is continued growth experienced by the provinces of Salta, Jujuy and Tucumán in the number of hectares devoted to this crop, as opposed to the provinces of Misiones, Corrientes, Chaco and Catamarca which reduced the area under cultivation.

Even when production decreased last season by 2 % over the previous tobacco campaign, **the average yield per hectare increased to 1,963 kg per ha.** compared to 1,818 kg of the 2008/2009 season.

Meanwhile, **the average market price plus the price paid for the “Special Fund Tobacco” amounted to \$ 9.77 per kg, the maximum price observed in recent years.**

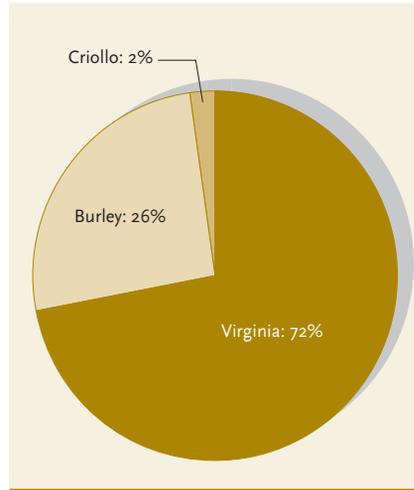
**Thus, monetary values, the last tobacco campaign meant \$ 1,532 million, 7.3 % above the value obtained in the 2008/2009 season and almost double the value of the 2004/2005 campaign.**

In Argentina, **the different types of tobacco according to the volumes produced are Virginia 72.53%, Burley 25.22%** characteristic, the first of Salta and Jujuy, while the second focuses in Misiones and Tucuman, **the Criollos** (Salta, Misionero, Correntino and Chaqueño) with 2.26 %, according to the 2009/10 season. In the 2011/12 campaign is meant to be developed in addition to these the Criollo Argentino and the Kentucky, which although by 2010/11 had failed to provide significant contributions even though their prices were higher than the rest of the tobacco generated.

Virginia tobacco is mainly produced in the departments of Cerrillos, Chicoana, Rosario de Lerma, General Güemes (belonging to the Province of Salta), El Carmen (Jujuy), Santa Rosa (Catamarca), and other minor departments. It is grown on farms with a high degree of capitalization and a clear predominance of larger economic units. Its production has increased over the last decade due to increased demand for light cigarettes.

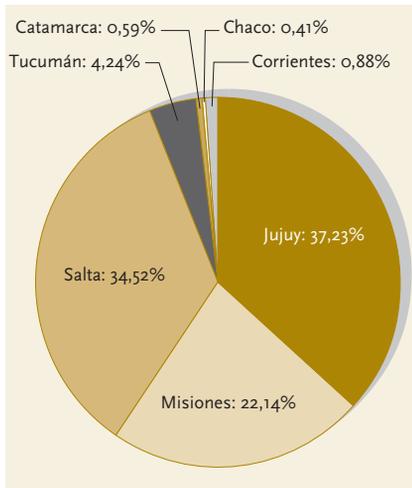
**Burley tobacco** occurs in Guaraní, 25 de Mayo (both in Misiones), La Cocha and Juan Baustita Alberdi (both in Tucumán). Mostly grows in the province of Misiones, which unlike Virginia tobacco, are small producers with lower levels of technology. Just over two thirds of the country's tobacco growers are located in this province; on the other hand, Misiones holds the first place in acreage.

The different varieties of **Criollo tobacco** are grown in Libertador General San Martín (Chaco), Goya (Corrientes),



Share by tobacco type. Campaign 1989-2010. Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Guarani, 25 de Mayo, Cainguas (belonging to Misiones), La Viña and Chicoana (both departments of Salta), most in less than one hectare land and family labor are the predominant forms of cultivation.



Provincial share in National Production. Campaign 1989-2010. Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### Tobacco value chain

Argentinean tobacco industry is highly integrated with a significant tobacco production, manufactured tobacco products and a wide distribution and marketing network.

Value chain refers to the total range of activities that firms and workers do to bring a product from the beginning to the final use. These include activities such as design, production, grading, conditioning, storage, industrialization, marketing, distribution and support until the product reaches the consumer. The activities involved may be performed by a single firm or divided among different firms.

The value chain allows understanding and presents how the industry structures and / or organizes, including functions, actors and their relation among participants in the value chain. It can be used to display quantitative data such as number of companies, total sales or per firm, number of workers involved in the various segments or links, value added per sector or activity.

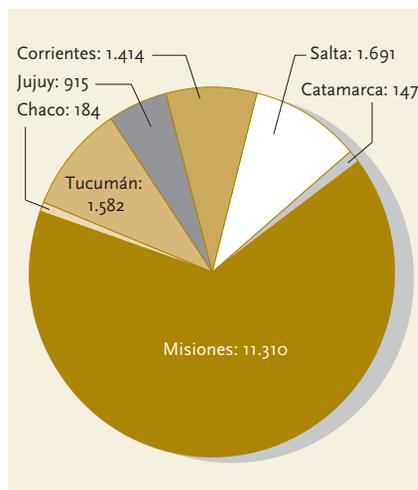
### *Tobacco farms*

Traditional cultural activities are related to land preparation. The first planting is in seedbeds varying according to different types of tobacco and geographic regions. The seedbeds are then transplanted to the permanent location to obtain the tobacco plant itself, there it is treated with fertilization techniques, irrigation, ridging (approximate soil is the stem of the plant to encourage the development of adventitious roots and facilitate their ability to assimilate nutrients and resistance to lodging), deflowering, deshooting, manual harvesting, and curing the leaves harvested. This first cured done by the producer aims to preserve the tobacco leaves by generating, via heat, appropriate organoleptic qualities for preserving the leaf quality potential. The process involves drying the leaves naturally (sun exposure or suspended in aerated places "tendaderos") or artificially in ovens with controlled humidity and temperature. Then the producer performs the pre-qualifying of leaves and bundles available at 45/50 kg depending on quality and leaf position. Tobacco that comes from farms after the drying process is called "Green tobacco" at this stage it should be noticed that production has achieved excellent results in their actions to preserve the environment and achieve a more friendly consumer

health product. Thus eliminating the use of methyl bromide in seedbeds, due to deteriorating ozone layer, and became flame stoves by stoves indirect fire, drying of the leaves is accomplished via hot air without contact between combustion gases with the product, it prevents the occurrence of nitrosamines in tobacco strand that makes up the cigarette, which are mainly carcinogenic.

In spite of technological change that leads agriculture and industry in the last century, the production of tobacco from cultivation to manufacturing is still delicate and intensive use of labor.

According 2009-2010 season information, **there are 17,243 tobacco farmers in Argentina**, 65.6 % of them are located in the province of Misiones, 9.8 % in the province of Salta, 9.2 % in the province of Tucumán, 8.2 % in Corrientes, 5.3 % in Jujuy and the remaining 2 % in the provinces of Chaco (1.1 %) and Catamarca (0.9 %).



Numbers of farmers per province. Campaign 1989-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### *Leaf-Buying companies*

Producer takes to the leaf-buying companies the tobacco bales. There they receive the industrialization process. In these processes there takes place a second classification of tobacco, and is processed to obtain stick, stemmed leaf, strand and various blends (mixture of tobacco) that will make up the tobacco used in different brands of cigarettes. In 2009/2010 season were 28 the leaf-buying companies located in different provinces of our country.

The production process for the attainment of cigarettes and other final products can be described in four stages: 1) Production of raw material 2) Processing includes deveined leaves or leaf stripping, 3) Second industrialization chopped and strands obtained, 4) Cigarettes manufacturing, distribution and sale.

The processing includes the stripped leaves or leaf stripping and a number of additional activities that were presented above.

Argentina grows blond and black tobacco, which have different technical, strategic and commercial characteristics. These types of tobacco in turn make up two distinct markets:

- The first one basically intended to the manufacture of cigarettes. The tobacco is acquired by the tobacco companies after the harvest and hoard in their purchasing agencies and / or dealers who acquire it for the cigarette industry and / or for export. In the last campaign it was found that the cigarette industry increased its vertical integration by acquiring more tobacco from producers than from the intermediary sector.
- The second one intended for the mixing, cigar production, cigars and export.

The product differentiation gives the degree or level of industrialization or added value. Thus, from cured tobacco in factory, are produced cigars (puros), little cigars (puritos), cigarettes, etc. You also get the “blend” of tobacco, which consists of different varieties blends from agro-ecological productive zones, highlighting in this regard tobacco produced in the temperate valleys of Salta and Jujuy.

According to data from the 2009-2010 season, **there are (on the tobacco-producing provinces) 21 leaf-buying companies and tobacco companies** with presence in some cases in more than one tobacco-producing province. The Province of Misiones has 6 tobacco companies, Jujuy has 6, Salta with 5, 4 in Tucuman, Corrientes with 4, 3 in Chaco and Catamarca with a cooperative.

In terms of kilos of stockpiled tobacco, **the most important is the Cooperativa de Tabaco de Jujuy, with 20.9% of the total of the season 2010/2009, followed by the Cooperativa de Tabacaleros de Salta, with 16.7% of this production, Massalin Particulares with 20.2%** (found in all tobacco-producing provinces except Catamarca and Chaco), **Alliance One Tobacco Argentina with 15.4%**, and **Cooperativa Tabacalera de Misiones with 8%** of the total stockpiled in the 2010/2009 campaign. Meanwhile, the remaining tobacco companies and leaf-buying companies concentrate less than 5% of total production.

### *Manufacturing companies*

The manufacture of tobacco products in Argentina are held by 11 companies. However, the two main ones are **Massalin Particulares and Nobleza Picardo**

Leaf-buying companies and tobacco companies. Campaign 2010/2009.				
Province	Company	Campaign 2009/2010 (kg total)	Percentage on the total	Percentage on the provincial total
Salta	Cooperativa tabacaleros de Salta Ltda.	22,150,858	16.7	45.4
	Alliance One Tobacco Argentina S.A.	9,623,438	7.2	19.7
	Massalin Particulares S.A.	7,329,624	5.5	15.0
	Tabes S.A.	6,510,010	4.9	13.3
Jujuy	Compañía Salteña de Tabacos S.A.	3,179,043	2.4	6.5
	Cooperativa de Tabacaleros de Jujuy Ltda.	27,774,845	20.9	59.6
	Massalin Particulares S.A.	8,094,060	6.1	17.4
	Alliance One Tobacco Argentina S.A.	8,361,661	6.3	17.9
Corrientes	Universal Leaf Tabacos S.A.	1,951,601	1.5	4.2
	Sudamérica Tabacos de Crecer S.R.L.	444,681	0.3	1.0
	Montecarlo Tabaco	13,371	0.0	0.0
	Alliance One Tobacco Argentina S.A.	477,594	0.4	40.9
Chaco	Cooperativa de Tabacaleros y productores agropecuarios de Corrientes Ltda.	511,392	0.4	43.8
	Massalin Particulares S.A.	43,587	0.0	3.7
	Cooperativa Agropecuaria Buena Vista Ltda.	135,125	0.1	11.6
	Cooperativa Tabacalera y Agropecuaria del Chaco Ltda.	412,465	0.3	75.9
Tucumán	Tabacos	100,719	0.1	18.5
	Eliana Méndez	30,030	0.0	5.5
	Massalin Particulares S.A.	2,637,793	2.0	43.9
	Cooperativa Independencia Ltda.	610,284	0.5	10.1
Misiones	Alliance One Tobacco Argentina S.A.	1,949,083	1.5	32.4
	Cooperativa productores agropecuarios de Tucumán Ltda.	815,507	0.6	13.6
	Cooperativa tabacalera de Misiones Ltda.	10,591,000	8.0	36.0
	C.I.M.A. S.A.	3,477,892	2.6	11.8
Catamarca	BLASA - Bompland Leaf Argentina S.A.	1,659,099	1.2	5.6
	Massalin Particulares S.A.	8,754,223	6.6	29.8
	Universal Leaf Tabacos S.A.	4,816,964	3.6	16.4
	Cooperativa tabacalera San Vicente Ltda.	113,797	0.1	0.4
Total	Cooperativa de Trabajo Cigarros de Catamarca - CIGAT	300,242	0.2	100.0
		132,869,988	100.0	-

Note: leaf-buying companies: stockpiled kilos are taken according to the location of the company regardless of its source, so all the kilos reported by MINAGRI are added up to their respective collection agent to obtain the total collected by each individual company.  
Source: E&R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Manufacturing companies.		
Province	Department	Company
Buenos Aires	Merlo	Massalin Particulares
	San Martín	Nobleza Piccardo
	Avellaneda	Tabacalera Sarandí
	Quilmes	Deloren
	Berazategui	Espert
	Lomas de Zamora	Coimexport
	Avellaneda	Gloteca
C.A.B.A.		Dólar
Entre Ríos	Concordia	Tabacalera del Litoral
Jujuy	El Carmen	Monterrico
Salta	Salta	Tabes

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

(96 % of total). The operations of both companies are vertically integrated, including tobacco stripping plants and cigarette manufacturing plants with a wide distribution network.

Share of cigarette market sales has changed significantly in the last year due before the signing of the Agreement between Industry and Ministry of Economy and Production, market forces prevailed

in only two companies (Massalin and Nobleza) with an incipient growth of small companies. After the Agreement was signed and according to adjustments that occurred in cigarettes, the growth of small companies was in steady increase, reaching 11 % of the market. This situation started to decline after the launch of lower-value products by the leading companies reaching today the SMEs participation less than 4 % of the total market.

#### *Distribution and retail*

In the last years, cigarette makers hold exclusive contracts with distributors and retailers, implementing in many cases mixed systems, using its own sales force and an indirect distribution through exclusive contracts with distributors in different regions around the country.

Meanwhile, **cigarette sales to the domestic market reached 2,120 million packages in 2009 and 2,098 million in 2010**, slightly below the historical highest record(2008) for the last 25 years.

**With an average price of \$5.44 per pack, total billing in 2010 would have exceeded \$11,418 millions.** Note that despite the increase in the price 73 % between 2007 and 2010, the amounts sold remained relatively stable.

Billing for the sale of cigarettes.			
Year	Number of pack of cigarettes (in millions)	Average price	Billing (in millions)
2005	1,844	3.10	5,716
2006	1,987	2.86	5,673
2007	2,051	3.14	6,440
2008	2,168	3.57	7,744
2009	2,120	4.48	9,502
2010	2,098	5.44	11,418

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

## Tobacco consumption

### *In Argentina*

The tobacco consumption in Argentina is regulated by numerous anti-smoking laws in different provinces, and in turn, there is a campaign from the National Government against tobacco and its advertising.

However, Congress made several attempts to advance in the tobacco control activity since 1986.

National Law No. 23.344, approved on August 29, 1986, imposed restrictions on advertising and tobacco promotion, and forced tobacco companies to include a warning that "Smoking is injurious to health" in all cigarettes packages, but did not include sanctions against violations of this law (which were included later, and then partially vetoed).

In 1992 a rule prohibiting the advertising and sale of cigarettes to minors was created. That rule was vetoed by the President Carlos Saul Menem arguing that it harmed the tobacco provinces.

In May 2003, Argentina signed the Framework Agreement for the Tobacco Control in Geneva with the main argument of protecting public health. In 2007 the National Program for Tobacco Control was settled, prohibiting the consumption and sale to minors.

On June 1, 2011 was enacted the National Law No. 26.687, which regulates tobacco products advertising, promotion and consumption with the purpose of prevention and care of the population from the damages smoking would produce.

At the time, following the national politics, several provinces began to regulate the tobacco industry in the last decade.

Among them we can mention the Autonomous City of Buenos Aires, in which in October 1, 2006 came into force by Law No. 1.799 passed by its Legislature, which prohibits smoking in public buildings of the city government as well as in private places. Also, since January 1, 2007 that jurisdiction do not allow advertising in public places, as well as incorporates the criminal figure to those who sell tobacco to minors.

Since June 1, 2006, Córdoba province, came into force by Law No. 9.113, which prohibits smoking in enclosed places, whether public or private. It also prohibits the sale of tobacco in stores that are located within 200 meters of any building of educational institutions and recreation for children under 18 years.

The province of Entre Ríos, since September 2008 Law No. 9.862 prohibits smoking in all indoors with access to the general public, both public and private since September 2008 by Law No. 9862.

The province of La Rioja, establishes limitations and prohibitions on advertising in its territory since August 14, 2003 by Law No. 7.525.

The same happens in Chubut, where smoking is prohibited indoors and in public offices.

Mendoza prohibits smoking in any enclosed space with public access in both public and private areas of the province since September 26, 2007 by Law No. 7.790.

The same applies to the province of Neuquén, which since December 6, 2007, Law No. 2.572, prohibits smoking or lit cigarettes, tobacco or other tobacco products in closed areas both public and private. Chaco, Tierra del Fuego and Salta have similar laws. In Jujuy, Municipal Ordinance No. 5.345, enacted in 2008, declared smoke-free public spaces in San Salvador de Jujuy.

Evolution of the domestic cigarette consumption.

Year	Total packs (in millions)	Population (in millions)	Apparent consumption
2001	1,740	36	48
2002	1,812	37	49
2003	1,990	37	54
2004	1,890	37	51
2005	1,862	38	49
2006	1,990	38	52
2007	2,057	38	53
2008	2,173	39	56
2009	2,132	39	55
2010	2,098	40	52

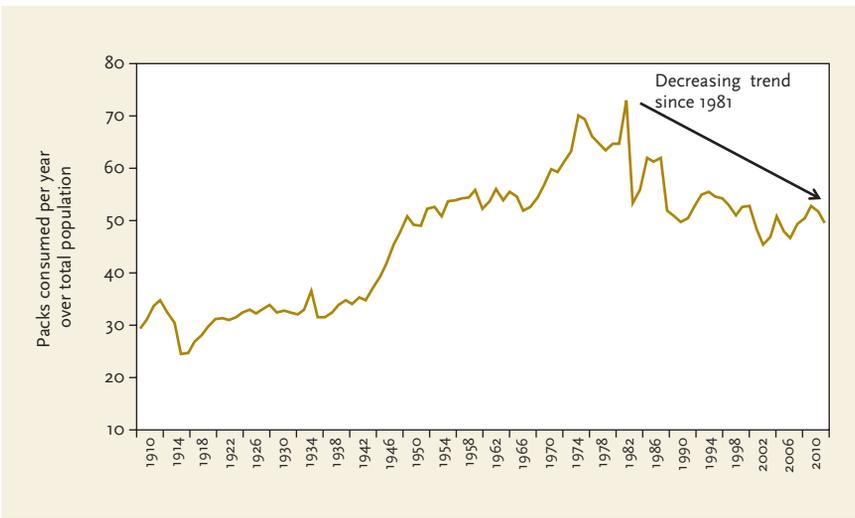
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Meanwhile the province of San Juan, since June 9, 2005 by Act No. 7.595 prohibits smoking inside places and offices belonging to all public authorities, agencies of centralized and decentralized administration, public enterprises, companies with state participation and state societies.

The province of Santa Fe, with Law

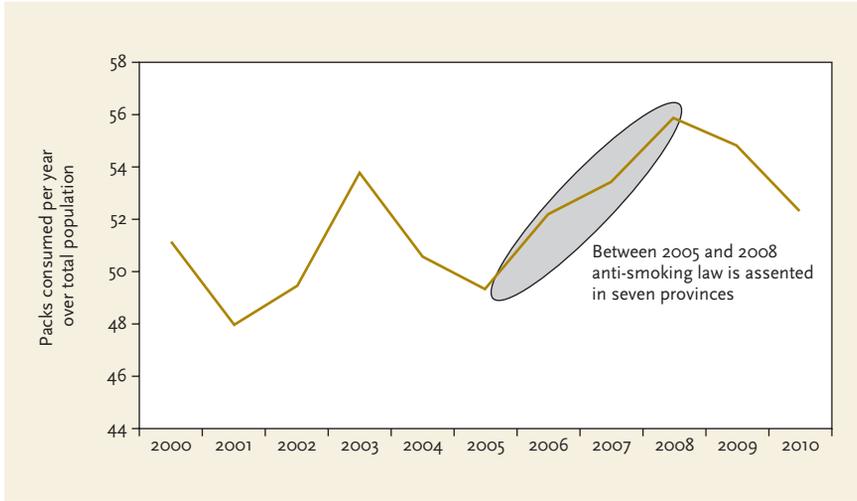
No. 12,432 enacted on November 10, 2005, establishes penalties to people who smoke indoors. Since June 29, 2006 with Law No. 7.575, the province of Tucumán, establishes the prohibition on smoking in enclosed public places.

Besides, many municipalities have established local laws created to supplement the provincial laws or to fill legal



Campaign 1989-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



Campaign 1989-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

gaps originated by the lack of them. The law provides penalties for those who break it, whether if they are tobacco companies, shops or individuals. The application of this legislation varies considerably among jurisdictions.

**However the progress of anti-smoking regulations, domestic consumption of cigarettes continues to rise.** In 2008 there was a consumption of 2,173 million packs of 20 cigarettes, peak of the last 20 years and then begin to decline slightly, as shown in the table below. At the same time, the increasing number of inhabitants determines that the reduction of the consumption per capita decreases.

Apparent consumption, which is measured as the ratio between total packs consumed in a given year on the total population is **52 packs per capita per year**. If we look at its evolution over the past 20 years, we see that we are four packs below than observed in 2008 (56 packs per capita).

By analyzing the apparent consumption between 1910-2010 shows that the maximum number of units is given in 1981 reaching 78 packs per capita per year. You can divide the series into two parts, the first since the beginning of the century until the year where you see a growing trend in consumption, although it has ups and downs accompanying economic cycles. The second period is from 1981, where this trend is reversed and there is an almost constant decline in apparent consumption.

While since the year 2005 began to legislate on the tobacco consumption, it seems that the measures taken in those years did not impact on consumption, which on the contrary continued increasing. Only since 2008 begins to observe a drop of this indicator, although it may not only be explained by the enacted laws, but can also be due to economic cycles present in the domestic market.

*In the World*

**Globally**, according to recent data published by the Food and Agriculture Organization of the United Nations (FAO), **global tobacco production would have exceeded 7.1 million tons of tobacco leaves in 2010**, a significant increase compared to 5.9 million tons produced in 1997/99.

**About 100 countries are tobacco producers.** The main ones are China, India, Brazil, United States, Turkey, Zimbabwe and Malawi, all together produce more than 80 % of tobacco on the planet. China itself produces more than 35 %.

According to FAO, the number of smokers rose from the 1,100 million in 1998 to about 1,300 million in 2010, which would mean an annual increase of about 1.5 %.

According to the latest statistics published by FAO in 2010, developed countries consumed 29 % of global tobacco consumption (in 1998 was 34 %), while developing countries consumed the remaining 71 %.

The demand for tobacco in developed countries slowly decreases and would have come to 2.05 million tons in 2010, 10 % less than the 2.23 million tons consumed in 1998, which can be explained by the slower growth of population. Furthermore, in developed countries, the population is increasingly aware of the harmful effects that smoking has on health, we have to add the measures taken by governments, including the intensification of the anti-tobacco campaigns, the advertising bans and increased taxation.

On the other hand, developing countries will smoke more and is estimated that tobacco consumption in 2010

reached 5.9 million tons (compared with 4.2 million 1997/99). Most of the projected increase in demand will correspond to the Far East, particularly China. China's share in total demand for tobacco in the world would be around 37 % in 2010. In India, the second largest consumer of tobacco, conventional cigarettes represent only 25 % of consumption. Most people consume tobacco in different ways, for example, hand-rolled bidis, tobacco for chewing, etc. Probably the total demand for tobacco in India will grow, but at a slower pace than in past decades. In Latin America, the use of tobacco in 2010 was 0.48 million tons., of which more than the half was in Brazil. In Africa, the total demand for tobacco increased in the 90's and reached a record annual growth (3.5%), with similar growth rates for 2010. In the Near East, demand for tobacco would have increased 0.42 % over the decade of the 90's.

**Tobacco industry produces more than 5.4 trillion cigarettes a year worldwide.** The most important cigarette market is in China and its 350 million smokers consume about 2.2 trillion cigarettes a year, in other words, 40 % of global consumption.

China is also the largest country in tobacco shred consumption, followed by Germany. Regionally, there are two zones that are characterized by the use of shred, Middle East and Africa with 45 % and Western Europe with 32 %. In Poland, the pipe market is positioning to the cigarette since 2003.

Globally, between 2002 and 2007, the tobacco consumption trend was given by chewing tobacco, which grew by 44 % in those 5 years, while cigarettes grew by 51 % and tobacco in shred 25 %. Meanwhile, cigarettes have declined by nearly 6 % in that period.

The “Snus” is derived from tobacco that is consumed placing it under the lip standing for long periods of time. It’s a way of chewed tobacco that does not requires to spit. Snus is consumed mainly in Sweden and Norway and its sale is prohibited in all states of the European Union, with the exception of Sweden.

In Western Europe, snus has two types of presentation, loose or in packages, which is becoming very popular in USA. Approximately 20% of men consume snus in Sweden. Swedish snus is manufactured in a process of heat in contrast to most American products that are fermented. The moisture content of snus varies from 30% to 60%. Some brands are also flavored.

In North America, the snus is sold as tobacco leaf or as blocks, and both are placed between the gum and the lip. Consumers chew it for several hours to have a permanent dose of nicotine.

In Asia a dried pasta that includes tobacco, nut o products based on herbs

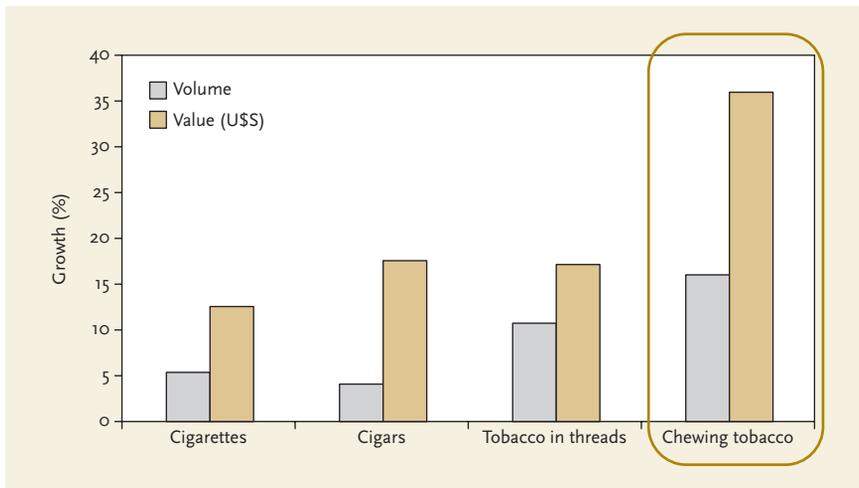
and flavoring, is used for chewing. Many products are used to freshen breath and chewed after a meal.

In recent years “fire safe” cigarettes have appeared. They are also called “cigarette reducers” or “low propensity to ignition.” They are used in USA and there are plans to introduce in the EU (European Union). These cigarettes have a less porous paper that provides a lower burning cigarette. If it remains unchecked, will burn out.

In early 2009, 9 U.S. states had laws on fire safe cigarettes by 2010, 50 states are expected to adopt legislation requiring fire safe cigarettes.

Since November 17, 2011, the European Commission will force to make cigarettes with low-burning paper to prevent fires.

Regulations of the sector keep growing and include health warnings on packs, harsh restrictions on advertising and even tighter restrictions on smoking in enclosed public spaces. The



Growth projection of tobacco products in the world by sector 2008-2013. Source: Euromonitor International.

sharp taxes increase in markets where tobacco is not exactly cheap is causing consumers to switch to cheaper brands and is likely to continue observing this trend.

It is expected that consumers smoke less and to register a lower percentage of smokers population. However, it is expected that the number of adults over twenty years in the world will increase by 11% in 2015<sup>1</sup>. In this sense, for the next 10 years, no major changes are expected in annual sales for the sector internationally.

The projected growth of the categories of tobacco in the period 2008/2013, according to Euromonitor International, suggests that chewing tobacco will have the highest growth among the different types of tobacco consumed, both in volume (16%) and price (35%). Meanwhile, the tobacco in shred will grow 10% in volume and 17% in value, and cigars and cigarettes will do so by 5% in volume and 17% and 13% in value respectively.

Going forward, the outlook for global tobacco consumption is positive. Even when tobacco demand could demonstrate falls in some developed countries, this decline would be balanced by growth consumption in China.

According to the FAO report, the increased demand for tobacco will be supplied by developing countries, which will increase their share in world tobacco production. In this regard it should be noted that even when in 2009 the first reduction of global cigarette production was registered, which reached -0.6%, down around 14% in the U.S. and 6% in Europe, that reduction was balanced by increased consumption in Asia Pacific

Bowl and allowed to get to - 0.6% of the world total.

Given these perspectives, the question arises about de convenience or not to Argentina to discourage the tobacco industry because of reducing production and export, would be creating a “vacancy” between countries bidders, which would place the country at a disadvantage compared to other economies, Brazil (one of the leading exporters of tobacco, with 20% of total), which could increase production to satisfy growing international demand. Note that Argentina is involved in only 1.8% of world production.

### THE IMPORTANCE OF SOCIO-ECONOMIC TOBACCO INDUSTRY IN ARGENTINA

The tobacco industry in Argentina contributes in various ways to the national economy. On one hand, is one of the main agricultural sectors in the country and generates significant economic activity in the Northern provinces. On the other hand, it provides a significant source of tax revenue for both the National Government as well as the tobacco-producing Provinces. It is also a dynamic external sector.

From the point of view of labour, culture is the lead labour claimant per unit area of agriculture, with about 70 to 120 wages according to zones, forms of production and type of tobacco. From a socio-economic and productive angle, as happens in other producing countries, is the most profitable crop in small-scale farms and areas where other crops are not viable or as profitable.

Please note that for some of these departments of the producing provinces is a crucial activity, which gives it great importance. Considering the high

<sup>1</sup> British American Tobacco Report, “Global Tobacco Market”.

labour intensity its importance is bigger in the primary stage of processing, compared to other major crops in terms of production and area planted nationwide.

### Tobacco importance in the product

To develop this section, in the lack of information from official offices about the provincial GDP, own estimates were used, based on statistics of the INDEC statistics addresses from various provinces and other government agencies that provide information on prices and quantities of different sectors of the economy. (See Methodological Appendix). In this sense, the values listed below are our estimates, not being possible to guarantee that they are complete or accurate. The information given will correspond particularly to the year 2009, calculation based on 2004.

In 2009, **the Gross Value of Production (GVP) at basic prices<sup>2</sup> of the tobacco industry would have reached \$1,820 million. Nationally, this sector would have contributed 0.2% to Gross National Product in 2009,** measured at basic prices.

Gross Value of Production of the primary stage of tobacco (crop), would have reached \$ 550 million in 2009/08 campaign, equivalent to 0.9% agriculture, livestock, hunting and forestry, having been 0.6% during the previous year 2008.

The Gross Value of Production (GVP) for the **secondary or industrial stage of the tobacco chain** would have reached \$ 1,270 million, measured at basic prices, and would represent 0.7% of Gross Domestic Industry during 2009,

record that is superior to that observed in 2008 (0.55%).

However, if we analyze the involvement of tobacco sector in the Gross Geographic Product of the 7 jurisdictions tobacco producing, it is observed that for the same period, its significance is much higher. **In the provinces of Jujuy (35.7%), Misiones (12.9%) and Salta (7.6%) the share of tobacco industry in the provincial agriculture would be high.** Note that in the provinces of Corrientes, Catamarca, Chaco and Tucumán development of this activity within the agricultural sector is minor (< 2% of the PBG).

In the Overall PBG, however, these shares decreased to 3.2% in the province of Jujuy, to 2.0% in Misiones, Salta 2.1% and 1.1% in Corrientes.

In Misiones, the VBP (at basic prices) of the tobacco sector in the primary stage would have totalized \$ 166 million while another \$ 95 million was provided in the stage of industrialization.

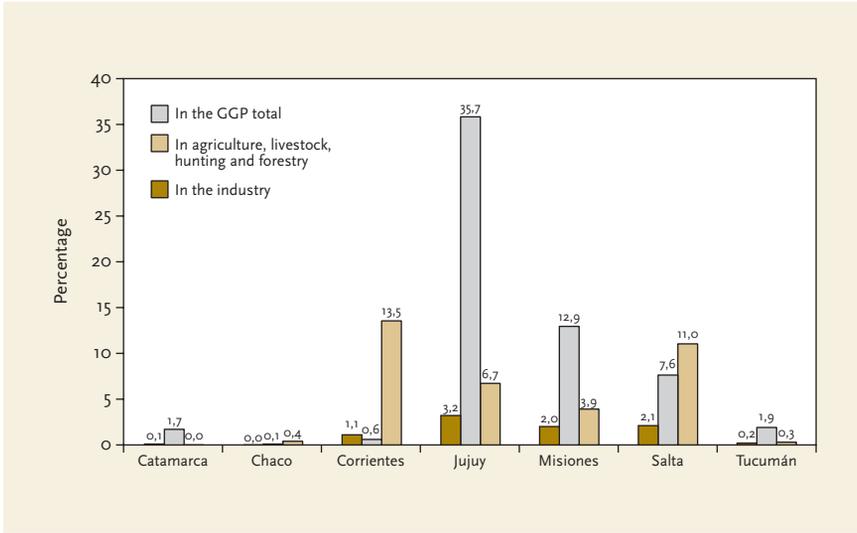
In Salta, the tobacco VBP in its primary stage of industrialization would be equivalent, reaching \$ 157 million in each one of these stages (at basic prices).

In Jujuy, the primary stage would have provided a value of \$ 179 million, and industrialization another \$ 95 million gross value of production in 2009.

In Corrientes, the primary activity would have reached \$ 10 million (at basic prices), while industrialization would bring another \$ 111 million. Less significant are the provinces of Tucumán, where these activities would have accumulated \$ 28 million and \$ 9 million, respectively, and Chaco \$ 2 million and \$ 3 million, respectively.

Despite these shares in terms of gross value of production, the significance in the workforce involved in this activity

<sup>2</sup> Basic prices see methodological appendix.



Tobacco share in provincial economy (GGP, Year 2009, current prices).  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

is more important considering that over 500,000 people depend on the sector, as discussed below.

### Tobacco importance in employed labour

The tobacco industry is ranked as one of the labour-intensive industries. Particularly, **in its primary stage, tobacco has labour requirements amounting on average to a maximum of 120 wages per hectare**, with a minimum of 70<sup>3</sup> wages. In the case of soy, wheat and corn, that figure is 0.44 wages per hectare.

The number of wages required per hectare depends on the type of tobacco and the particular moment of the campaign.

Particularly, for the Virginia variety, for the preparation of the seedbed, 4 wages are required, soil preparation and

planting (30) and harvesting (77). Besides 9 wages that are also needed permanently.

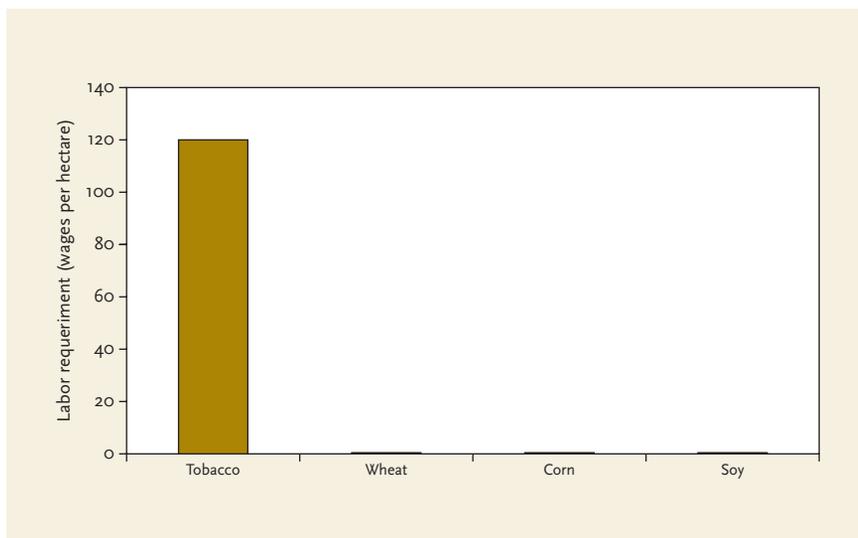
Something similar occurs for Burley and Criollo, observing the largest wage requirement at the crop stage.

Considering these average requirements of wages by type of tobacco, and the information of the hectares from last season 2009/2010, **tobacco industry average requirement of wages was about 8,194,160 nationally**.

Salta is located in first place with 2,604,870 wages, followed by Misiones (2,550,970), Jujuy (2,356,200), Tucumán (383,670), Corrientes (182,410), Catamarca (59,790) ending with Chaco (56,250).

Considering the requirements of wages by type of tobacco, hectares planted and harvested in the last campaign, and analyzing the labor requirements can be estimated that the cultivation of tobacco has generated 49,518 jobs during the 2009/10 season.

<sup>3</sup> Data from the Ministry of Agriculture, Livestock and Fisheries of Argentina.



Labor requirement. Wages per hectare.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Wages per hectare in Virginia tobacco production.		
Labor	Crop Stage	Numer of wages
Permanent		9
Temporary	Seedbed	4
	Sail preparation and planting	30
	Harvest	77
<b>Total</b>		<b>120</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Wages per hectare in Burley tobacco production.		
Labor	Crop Stage	Numer of wages
Permanent		7
Temporary	Seedbed	3
	Sail preparation and planting	23
	Harvest	57
<b>Total</b>		<b>90</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Wages per hectare in Criollo tobacco production.		
Labor	Crop Stage	Numer of wages
Permanent		5
Temporary	Seedbed	2
	Sail preparation and planting	18
	Harvest	45
<b>Total</b>		<b>70</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Wages estimated by Province. Campaign 2010/2009	
Province	Number of wages
Catamarca	59,790
Chaco	56,250
Corrientes	182,410
Jujuy	2,356,200
Misiones	2,550,970
Salta	2,604,870
Tucumán	383,670
<b>Total</b>	<b>8,194,160</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

That number is equivalent to **15 % of jobs generated by agriculture, forestry and fisheries nationally in 2010 and equivalent to 2.2 % of jobs generated by the private sector and 1.9 % of total employment.**

The tobacco generated 5.8 % of the private occupation in the province of Misiones and 5.1 % of total employment, while in Jujuy these amounts reached to 5.0 % and 4.3 % respectively. The importance of tobacco as an employment generating activity was also high in Salta (2.8 % and 2.5 % respectively) and Catamarca (0.5 % and 0.4 % respectively), and recorded its lowest in Chaco province (0.13 % and 0.10 %, respectively).

Moreover, **the employment generated by the tobacco primary production**

**in the seven tobacco-producing provinces amounted to 13.2 % of employment generated by the public sector of that set of provincial governments.**

It should be noted the case of the Province of Misiones, where the relationship between employment in the tobacco cultivation and public employment was 43.3 %, while in Jujuy and Salta, the same numeral stood at 29.4 % and 23.2 %, respectively.

**In terms rural family type (3.5 members) for each employee affected to tobacco production means that 173,313 people depend on tobacco farming for their livelihood, it means 6.27 % of total rural population of the country,** according to the Census 2010 and ECLAC estimates (2,766,304 people).

Considering the average family group (3.5 members on average for all provinces), estimates show that 6.7 % of the population of Misiones, 5.8 % of the population of Jujuy and 3, 6 % of the population of Salta, depend on the primary tobacco production for their livelihood.

**When the analysis of working relevance is done at locations or departments level, the growing economic importance of tobacco for some communities can be seen more clearly.**

Employment generation in tobacco growing at provincial level. Year 2010							
Province	Employment in tobacco-growing	Private employment	Public employment	Total employment	Over private (%)	Over public (%)	Over total (%)
Catamarca	498	101,104	37,890	138,994	0.5	1.3	0.4
Chaco	332	263,470	64,275	327,745	0.1	0.5	0.1
Corrientes	1,268	301,994	66,478	368,471	0.4	1.9	0.3
Jujuy	11,220	222,193	38,166	260,359	5.0	29.4	4.3
Misiones	21,134	363,230	48,818	412,047	5.8	43.3	5.1
Salta	12,517	439,305	54,053	493,358	2.8	23.2	2.5
Tucumán	2,548	515,028	66,083	581,111	0.5	3.9	0.4
<b>Total</b>	<b>49,518</b>	<b>2,206,322</b>	<b>375,763</b>	<b>2,582,085</b>	<b>2.2</b>	<b>13.2</b>	<b>1.9</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Number of people who depend on Tobacco Growing at provincial level. Year 2010				
Province	Employment in tobacco-growing	Number of people who depend on tobacco-growing	Population Census 2010	Over population total (%)
Catamarca	498	1,744	367,820	0.5
Chaco	332	1,163	1,053,466	0.1
Corrientes	1,268	4,438	993,338	0.4
Jujuy	11,220	39,270	672,260	5.8
Misiones	21,134	73,968	1,097,829	6.7
Salta	12,517	43,811	1,215,207	3.6
Tucumán	2,548	8,919	1,448,200	0.6
<b>Total</b>	<b>49,518</b>	<b>173,313</b>	<b>6,848,120</b>	<b>2.5</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

In the last season (2009/2010), Misiones Province recorded the highest number of tobacco producers (11,310). Assimilating the number of farmers to number of families or households involved in this activity can be seen that in places like **Guaraní**, one of the departments with the largest number of tobacco farmers (3,655 farmers) and 19,696 households surveyed in the area, the dependence of families with the tobacco industry reached **18.6% of households**.

In the department of **25 de Mayo**, although it is less the number of tobacco farming families (1,958), the ratio of **households that depend on the tobacco industry reached 24.3%**. Moreover, in the department of **San Pedro**, which concentrates 1,005 farming families, the ratio of households that depend on the tobacco industry rises to **11.5% of the total**.

In Salta, La Viña department has the highest number of households that depend on tobacco activity for their livelihood, reaching 12.5% of total households (1.869) existing in this provincial town according to the population Census in 2010.

Same thing happens between Tucumán and Misiones, particularly where

there are two departments who are highly dependent on the tobacco industry. The department of **La Cocha, 19.1% of households depend on the tobacco production**, while in the department of **Juan B. Alberdi, it reaches 13.8% of all households in the region**.

In addition to the workers affected in primary production (49,518), 5,800<sup>4</sup> formal jobs in hoarding and processing plants, 3,102 administrative employees, 2,334 distribution employees and 110,000 employees distributed in the stalls<sup>5</sup> must be added.

**Taking the whole tobacco chain, in 2010 we can estimate, at national level, a total of 170,754 workers dependent on tobacco production, tobacco commercialization and industrialization, for their livelihood. Which**

<sup>4</sup> According to a study by the Federal Administration of Public Revenue (AFIP), entitled "Manufacture of Tobacco", in 2010 the number of employees involved in the different tobacco-industry companies reached to 5,826, a number similar to 2009 and slightly above the number of people employed 5 years ago.

<sup>5</sup> The data relating to workers hoarding and processing plant were obtained from the AFIP report entitled "Manufacture of Tobacco," 2010. The data administrative employees, wholesale / retail stalls were obtained from the report of the Universidad Católica Argentina entitled "Characterization of the tobacco production sector in Argentina", year 2005.

REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)

Number of families who depend on Tobacco Growing at provincial level. Year 2010				
Province	Department	Numbers of farmers	Total of households INDEC 2010	Ratio
Misiones	Guaraní	3,655	19,696	18.6
	25 de Mayo	1,958	8,073	24.3
	Cainguas	1,517	15,859	9.6
	Gral. Manuel Belgrano	1,175	12,562	9.4
	San Pedro	1,005	8,753	11.5
Salta	Cerrillos	391	8,505	4.6
	Rosario de Lerma	358	8,968	4.0
	Chicoana	301	4,949	6.1
	La Viña	234	1,869	12.5
	General Güemes	217	11,562	1.9
Tucumán	La Cocha	881	4,607	19.1
	Juan B. Alberdi	479	3,481	13.8
	Graneros	208	7,554	2.8
Corrientes	Goya	1,330	24,344	5.5
Jujuy	El Carmen	821	23,324	3.5
Chaco	Lib. Gral. San Martín	154	15,797	1.0
Catamarca	Santa Rosa	143	3,096	4.6

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Number of people who depend on tobacco activity (crop, industrialization and marketing). Year 2010		
Sector	Workers	Worker plus household
Primary sector	49,518	173,313
Hoarding and process Plant employees	5,800	19,984
Administrative employees	3,102	8,299
Wholesale/retail distribution employees	2,334	9,336
Stalls	110,000	330,000
<b>Total</b>	<b>170,754</b>	<b>540,932</b>

Source: E&R, based on data from the Ministry of Agriculture, Livestock and Fisheries, INDEC and AFIP.

is equivalent to 1% of the employed population nationally (17,023,248) and 540,932 people around the family group, 1.35% of the total national population.

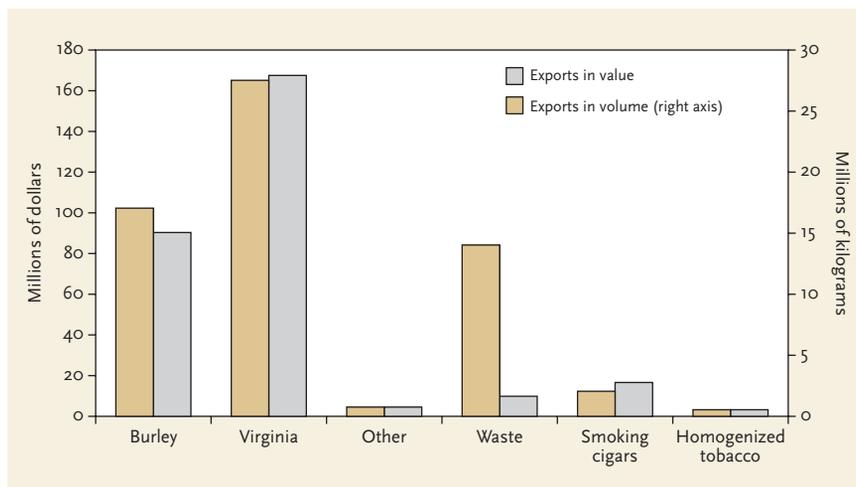
### Tobacco importance in the Argentine foreign sector

In the context of international trade, the tobacco industry exports more than

50.75% of total production in the form of stripped tobacco.

During 2010, tobacco exports totaled U\$S 308,447,659 and reached 67,750,963 kilos, having decreased by 18.57% in value and 25.55% in volume compared to 2009. The sum in amounts equaled to 0.45% of Argentina's total exports recorded in 2010.

Of total exports 88.05% corresponds to stripped tobacco, which has shown



Tobacco exports.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

a decrease of 19.96 % in value (U\$S 269 million), and 26.8 % in volume (46,3 million kilos) over the previous year. 62 % of stripped tobacco is Virginia, and 38 % Burley. The average price of stripped tobacco increased that year by 8.28 % passing from the U\$S / kg 5.38 in 2009 to a unit value of U\$S / kg. 5.83 in 2010.

The value of **leaf tobacco exports** rose from U\$S 8.2 million to U\$S 8.9 million in the same year. It should be highlighted that it hasn't been exports of denervated tobacco, not dried or fermented nor of dry leaves or fermented layer type. The main leaf export destinations were Paraguay, Uruguay, Puerto Rico and the U.S.

**Exports of cigars and little cigars** had a decrease of 88.19 % in 2010, while the average unit price decreased by 70 % over the previous year. The only destination countries were Brazil and Chile.

In relation to cigarette category, there was a decrease of 36.22 % in value from the previous year from U\$S13,4 million

in 2009 to U\$S 8,56 million in 2010. However, the average export unit price did not change remarkably, reaching U\$S / kg. 12,86 in 2010. The main destinations remained Peru, Chile and the Oriental Republic of Uruguay.

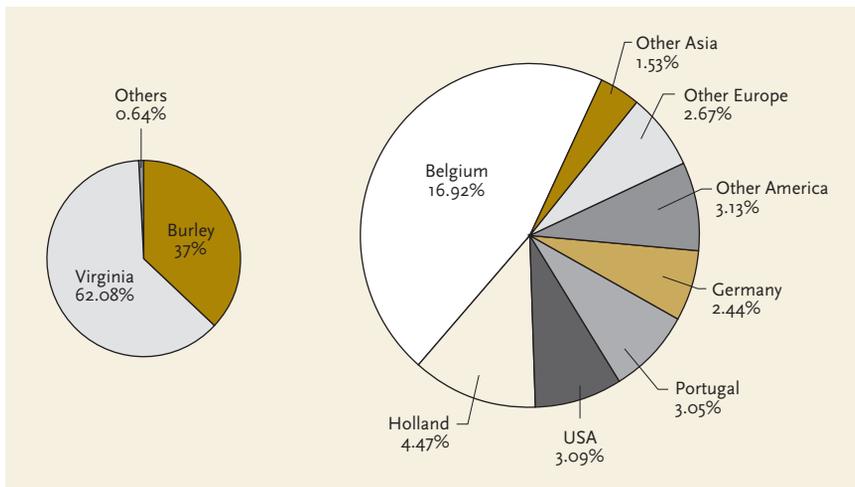
**Exports of tobacco for smoking** decreased by 64.97 % (U\$S 22,423 kg) in volume compared to 2009, however value has increased by 14.11 % (U\$S 54,997). The main destinations were China and Uruguay.

Finally, in relation to exports of homogenized tobacco it has passed from a value of U\$S 48,195 in 2009 to U\$S 54,997 in 2010. The main destination was Chile.

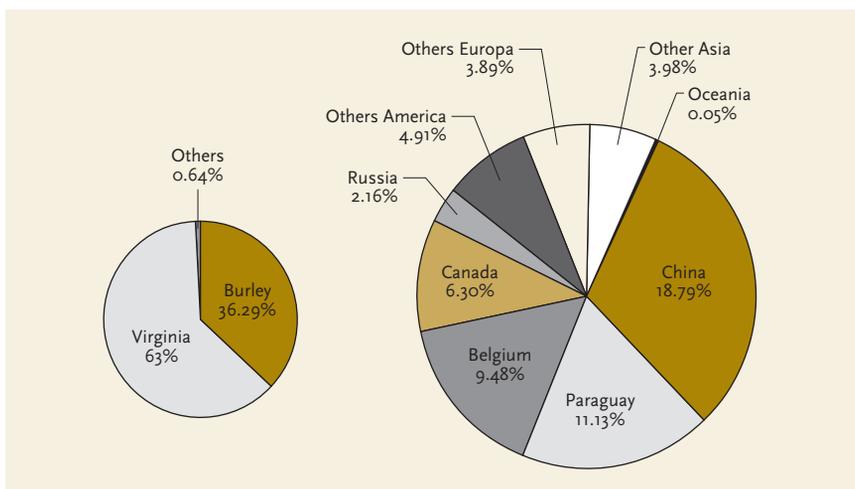
Regarding the destination of exports **by type of tobacco**, it can be seen that in 2010, Burley was mostly to Belgium (17 %), Netherlands (4 %) and the U.S. (3 %), Portugal (3 %) and Germany (2 %).

The main destinations for **Virginia**, which represent 63 % of tobacco exports, went to China, Belgium, Paraguay and Canada.

REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)



Burley tobacco. Exports Destinations. Year 2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



Virginia tobacco. Exports Destinations. Year 2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Although to export over 80% of the tobacco production, Argentina is also an importer of tobacco in different ways.**

During 2010, tobacco imports reached a total of US\$ 56,667,635 and

9,872,044 kilos, having increased in value 28.31% and 3.14% in volume compared to 2009. **The number in amounts equivalent to 0.1% of Argentina's total imports recorded during that period.**

Compared to the previous year, the average price increased by 24,51 % (U\$S/kg. 5,74).

The 10.24 % of total imports in kg. belongs to **whole-leaf tobacco** (unmanufactured tobacco), which has shown a decrease of 30.49 % in value (U \$ S 5.46 million) and 27.29 % in volume (1.01 million kg).

The average price of **stripped tobacco** declined 3.54 % from the U\$S/kg. 5.64 in 2009 to a unit value of U\$S/kg 5.44 in 2010. The main countries supplying Burley stripping tobacco were Mozambique and South Africa, while for the Virginia variety was Brazil.

The **cigars and little cigars category** showed an increase in imports 31.22 % from U\$S 2.93 to U\$S 3.85 million. However, the average price decreased by 6.41 % over the previous year. The main countries of origin of these imports were U.S., Cuba and the Netherlands.

Cigarette imports showed an increase of 25.91 % in value and 29.09 % in kg. compared to the previous year. At the same time there was a decrease in the average import price of 10.5 % from a unit value of U\$S/Kg 17.84 in 2009 to U\$S/kg 15.95 in 2010. The main country of origin has been Chile.

To finish, **homogenate tobacco** can be mentioned, which have gone from a value of U\$S 4.9 million in 2009, to U\$S 6.24 million in 2010. In terms of volume and average price of tobacco is an increase of 10.29 % and 14.38 % respectively. The main country of origin has been Brazil.

### Fiscal (or Tax) contribution of the tobacco industry

While the final products of the chain, cigar and cigarettes, are criticized for

their negative impact on human health, should not be overlooked that **they are an important source of revenue for both the National State to the Provinces.**

In this way, they play a key role in the collection agreements signed between the tobacco industry and the National Executive Power (NEP), which emerged in 1989 as a measure to increase revenue and at the same time to ensure economic stability and tobacco sector jobs at different levels (tobacco-leaf producing, cigarette manufacturers, wholesalers, distributors and retailers).

They set biannual objectives of collection, which must be achieved from the sum of tax revenue in concept of Internal Revenue, VAT, Supplemental Tax of Emergency and Special Fund Tobacco (SFT)<sup>6</sup>, which have the following tax rates.

In last years, **targets tax collection** have increased significantly, **from \$4,000 to \$7,600 million between 2006 and 2010**, resulting in a 90 % increase between points, and totaling \$26,400 million for the period under review

<sup>6</sup> Decree Law No. 19 800 August 1972 establishing a Special Fund Tobacco (SFT), which is funded from cigarette tax (7 % of retail price of each pack). The Fund tobacco policy axis is linked to the determination of income received by the producer, which is comprised as follows:

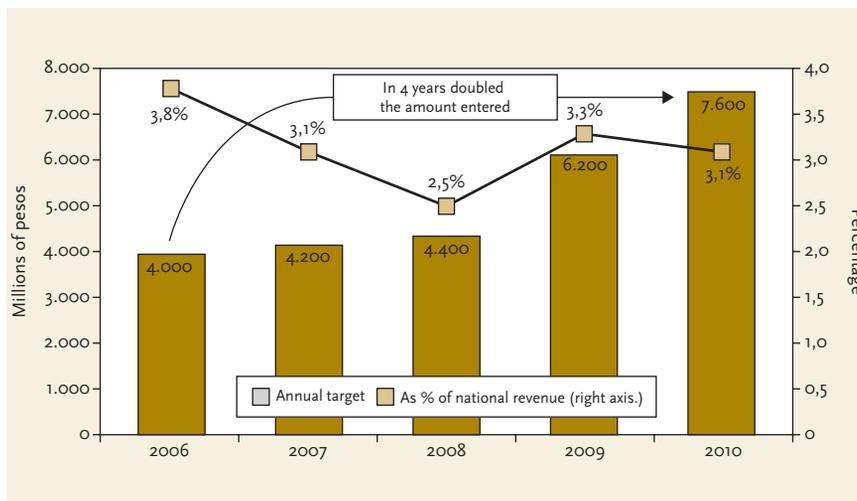
- a) The cost of hoarding which is paid by the buyer (dealers, cooperatives and Industry).
- b) Price paid by the State through the SFT, the same includes a premium (variable contribution according to the types of tobacco, which can not exceed 40 % of the total received by the producer) and an emergency additional (that can not be greater than 50 % of the premium and is intended to palliate the economic and social problems caused by the regime of tenure of the land) in some regions.

The SAGPyA is the enforcement authority of the Fund and its functions include the pricing of the different varieties of tobacco and transfer 80 % of the proceeds of the FET to the provinces for them to make the payment to producers.

REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)

Tribute	Aliquot	Destination
Internal	60%	Nation - Provinces
IVA	21%	Nation - Provinces
Emergency additional	7%	Social Assistance Fund (Nac.)
SFT	7,35 % + \$0.2112 x paq. 20 uds.	Primary sector

Source: in force Laws.



Tobacco industry tax collection agreements.  
Source: E&R, based on data from MECON and Sector Entities.

(USD 7,700 million at the average exchange rate each year).

Moreover, we can see that **the sector contributed on average 3.1% of annual revenues just for this concept**, to which should be added the paid in income tax, export duties and turnover (gross income) tax, the latter provincial orbit.

To estimate the **total tax contribution of the sector**, data collection provided by the AFIP (Internal and Emergency Supplemental) and the Ministry of Agriculture (SFT) is used as input. While for the rest of taxes they are our own estimates, based on in force-legislation and on data from private companies for the rest of the tax data.

The **rates of export duties are 10% for unprocessed products** (stripped tobacco, whole-leaf tobacco), **and 5% for higher value added products** (cigarettes, cigars), counting in the first case with a refund of 2.7%. In the case of **Gross Income (GI), the rate varies between 1.5% and 3.5%, according to the jurisdiction in which productive activity is filed.**

As shown in the table, **the tax contribution of the tobacco industry has been close to \$ 28,500 million over the past 5 years**, giving an average of \$ 5,700 million annually, while measured in dollars, the contribution accumulated during the last five years reaches 8.258 million USD.

Fiscal Resources generated by the Tobacco Industry, Years 2006-2010						
Annual tax revenue (in millions of \$ARS)	2006	2007	2008	2009	2010	Acumulated
Internal	2,717	3,021	3,641	4,323	5,081	18,785
IVA	380	423	509	605	711	2,628
Emergency additional	398	447	555	658	786	2,845
FET	363	413	486	763	1,016	3,041
Total taxes agreements	3,859	4,304	5,192	6,350	7,594	27,298
Profits	20	51	49	58	69	247
Export duties	77	84	109	139	118	527
Total Nation	3,955	4,439	5,350	6,547	7,782	28,073
Gross income	55	61	74	87	103	380
<b>Total revenue</b>	<b>4,010</b>	<b>4,500</b>	<b>5,424</b>	<b>6,634</b>	<b>1,016</b>	<b>3,041</b>
<b>In US\$ (annual average)</b>	<b>1,305</b>	<b>1,445</b>	<b>1,715</b>	<b>1,779</b>	<b>2,015</b>	<b>8,258</b>
Distribution by destination	2006	2007	2008	2009	2010	Acumulated
Nation	2,055	2,303	2,794	3,325	3,876	14,352
Provinces	1,593	1,784	2,144	2,546	2,993	11,060
Farmers FET	363	413	486	763	1,016	3,041
<b>Total</b>	<b>4,010</b>	<b>4,500</b>	<b>5,424</b>	<b>6,634</b>	<b>1,016</b>	<b>3,041</b>

Source: E&R, based on data from the AFIP, Ministry of Agriculture and Sector Entities.

In terms of distribution, it appears that **the National Government is the main beneficiary<sup>7</sup>, since it takes 50% of the resources generated, while the remaining half is distributed among the provinces (39%) and Producers (11%).**

Regarding the annual fundraising targets, there is an over compliance with them, since the amount generated was \$ 27,300 million, some \$ 900 million above from what was signed with the National Government. Note that the compliance review is made in relation to the biannual<sup>8</sup> target, while the surplus generated revenues are carried to the following accounting year.

In this context, it is clear that the tobacco industry tax contribution is significant, especially considering that **the**

**annual flows of tax are equivalent (on average) to 6.7 times the value of primary production.** Another way to see the relevance of the sector is comparing the revenue with other significant taxes, such as the tax on gasoline and personal assets, both with a substantially wider tax base.

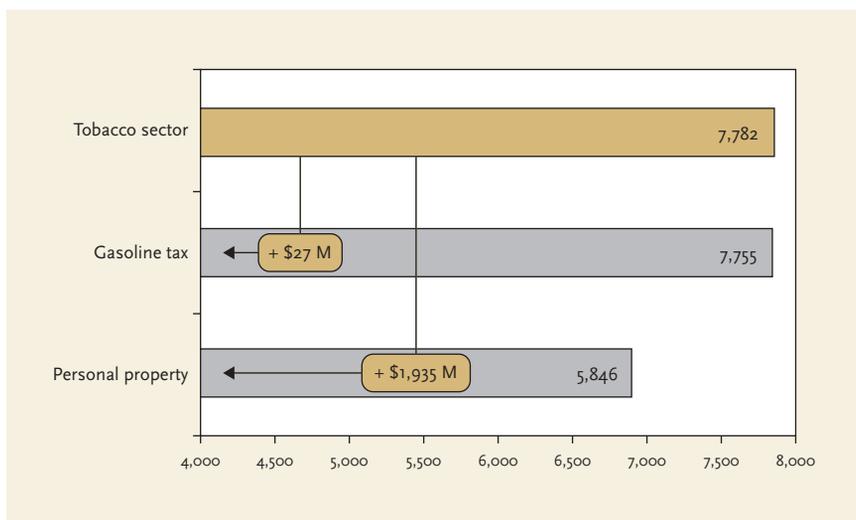
As the chart shows, **the contribution of the tobacco sector was slightly higher than the tax on liquid fuels (+0.3%), and much higher than the Personal Property, exceeding 33% of the resources generated by the estate tax.**

To underline the importance that has the tobacco industry on the provincial tax, it is noted that in 2010 the resources generated (\$ 2,993 million) equivalent to 52% of revenue from the stamp tax, 59% of property taxes, and 74% automobile tax.

It can be seen that **the collection has remained constant relative to the size**

<sup>7</sup> It includes the National Treasury and other federal agencies, such as ANSeS.

<sup>8</sup> As an example, the biannual target of the last agreement signed was \$ 13,800 million, while the resources generated by our calculations were \$ 13,944 million.



Comparative revenue collection in 2010.

Source: E&R, en base a datos de la AFIP, Ministerio de Agricultura y MECON.

**of the economy, with an average ratio of 0.56% of GDP.** This dynamic is derived from the tax collection agreements, which have set as one of its main objectives to maintain a stable tax burden on cigarettes, avoiding disproportionate increases on the already high level of taxation, which is within the highest in Latin America, surpassed only by Brazil.

At provincial level, the tobacco industry generates a significant source of tax revenue to the treasury, through two channels: the federal system of sharing federal tax (VAT, Internal and Emergency Supplemental) and own tax revenue, as the Tax Gross Income<sup>9</sup>.

This can be seen that **for the total of tobacco-producing provinces, the tobacco industry has generated just in 2010, \$ 834 million, having accumulated a total amount of \$ 3,083 million in the last 5 years.**

<sup>9</sup> See Methodological Appendix.

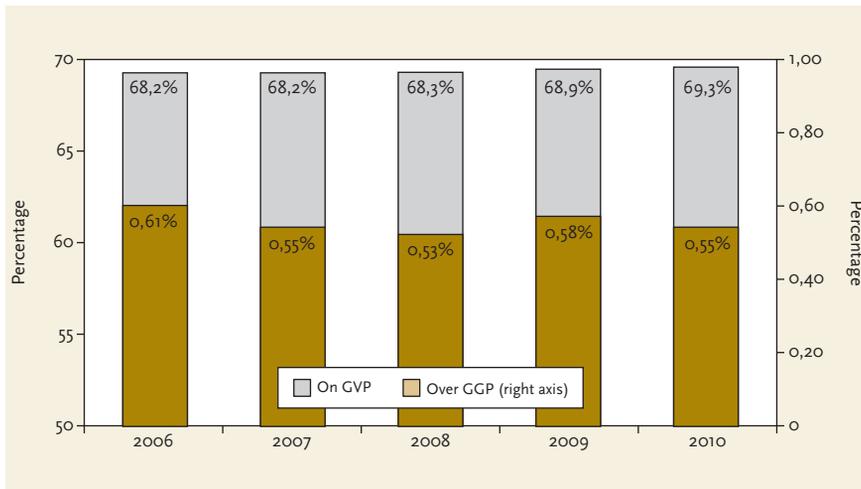
In provinces like Salta, Chaco and Tucumán, the activity provided approximately \$140 million in 2010, representing \$117; \$133 and \$95 per capita.

In provinces like Jujuy and Misiones, tobacco contributed \$118 million and \$115 million during fiscal 2010, while in Corrientes, the activity contributed \$105 million. In per capita terms, this collection is \$175, \$105 and \$106 per year per capita. It should be highlighted that in Catamarca, while the sector's contribution to the treasury reached to \$77 million, one of the lower amounts relative to the rest of the tobacco-producing provinces in per capita terms these resources are the highest, with an annual collection of \$210 per capita.

To conclude this section, we measured the tax contribution of the sector in terms of gross product, and in terms of Gross Value of Production (GVP) of the activity, being the latter a clear indicator of the **heavy weight of the tax**

Estimate of fiscal resources that get the provinces by the tobacco activity. Years 2006-2010								
Tobacco-producing provinces	2006	2007	2008	2009	2010	Acumulated	Part (%)	Rec. per capita 2010
Catamarca	41	46	56	66	77	286	2.6	210
Chaco	74	83	100	119	140	517	4.7	133
Corrientes	58	63	77	90	105	392	3.5	106
Jujuy	57	68	82	96	118	421	3.9	175
Misiones	66	71	86	105	115	444	3.8	105
Salta	73	84	99	116	143	515	4.8	117
Tucumán	74	81	99	117	137	509	4.6	95
Annual total	444	497	598	710	834	3,083	27.9	122
Other jurisdictions	1,149	1,287	1,547	1,836	2,158	7,976	72.1	

Source: E&R, based on data from the AFIP, Ministry of Agriculture and MECON.



Tax pressure on the tobacco industry.

Source: E&R, based on data from the AFIP, Ministry of Agriculture and MECON.

**component of the tobacco industry**

because the direct tax burden on the price (Internal tax, FET, Additional and IIBB) represents about 70 % of sales price to final consumers.

**REPLACEMENT AND DIVERSIFICATION IN THE TOBACCO AREAS OF ARGENTINA**

Tobacco production is characterized by high demand of labour at farming,

so this activity remains labour intensive.

To achieve the tobacco production replacement and / or diversification, the profitability of alternative crops should be the key to success. It is fundamental to persuade farmers to turn to other crops.

Numerous studies raise alternative crops such as vegetables, fruits, cereals, citrus, oil, etc., to replace the tobacco cultivation. However, is required to

analyze the profitability of these crops to assess more thoroughly the feasibility and sustainability over time of such replacement. An so on with the necessary technical and financial assistance for implementation, training of labour and social support, institutional and commercial market for their successful development.

Diversification must include opportunities both agricultural and non-agricultural, to transform a product into another.

Remember that tobacco producers are doing this activity from generation to generation, which they not only have to get an economic benefit, but also have to change their mind and join in the cultural change to make a substitution or diversification of the activity carried out regularly.

At the NEA, the diversification of tobacco-farming turns to citrus, vegetables, corn, beans, forestry, while in the NOA is done through the oilseeds, fruits and vegetables.

Since the provinces of Misiones, Salta and Jujuy represents 90% of the total tobacco planted area in the country, producing 93% of the total, they will be taken as reference for the analysis of the feasibility of replacing tobacco with other crops.

Moreover, analysis of alternative crops will be done on a comparative way for the predominant type of tobacco in each jurisdiction.

### Burley tobacco (Misiones Province)

For the analysis of substitution and / or diversification of Burley tobacco we will use as a basis gross income of the 2009/2010 season, equivalent to 19,192 hectares harvested at a price of \$10.20, giving a total of \$ 300,012,345.

Taking the performance of 2009/2010 season it was 1,533 kg/ha with a value of \$ 10.20 per kg giving a gross income of \$ 15,632.16 per hectare.

When we compare to corn production, which has a yield of 3,000 kg / ha to \$ 0.68 per kg, giving a gross income of \$ 2,040 per hectare, **it is concluded that 7.66 hectares of corn are needed to achieve the same income as tobacco by one hectare of Burley.**

To achieve the same gross income at provincial level rather than 19,192 hectares harvested; 147,064 hectares would be needed, it should be noted that the province has about 2,700,000 hectares, of which 2,000,000 are forest use between native forests and grown. **So, to substitute for corn production, not only would have to use the area occupied**

**Burley tobacco production in Misiones province.**

Campaign	Planted (ha)	Harvested (ha)	Production (kg)	Yield (kg/ha)	Market price + SFT (\$)
2004/05	35,232	32,770	52,388,944	1,599	4.73
2005/06	30,606	29,462	44,805,608	1,521	5.05
2006/07	28,136	26,444	33,999,948	1,286	5.63
2007/08	27,295	22,410	36,010,679	1,607	7.59
2008/09	30,646	26,353	41,045,594	1,558	9.67
2009/10	28,581	19,192	29,412,975	1,533	10.2

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Burley tobacco replacement by other alternative crops. Comparative.**

Crop	Yield (kg/ha)	Price (\$/ha)	Gross income (\$/ha)	Affected Area (ha)	Initial investment (in millions of dólares)	Years of maduration of the project
Burley tobacco	1,533	10.20	15,632	19,192	122	0
Corn	3,000	0.68	2,040	147,064	28	1
Tea	18,000	0.30	5,400	55,557	620	3
Citrus	40,000	0.45	18,000	16,667	521	5
Stevia	2,500	7.00	17,500	-	100	1

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**by tobacco, but should also have to take other areas that are used by different crops.**

Compared with the **cultivation of tea** we have to remember that for this type of production you need to have a soil type 9A (deep red), whereas the production of Burley tobacco don't.

Following the same reasoning used above, we see that for a production of tea with a yield of 18,000 kg / ha to a value of \$ 0.30 per hectare, gives a gross income of \$ 5,400 per hectare. In other words, **it takes 2.89 hectares of tea to achieve the same gross income of one hectare of Burley tobacco.** At the provincial level would require 55,557 acres to submit a soil class 9A (deep red).

Additionally, each 10,000 tons of tea, it takes 50,000 tons of raw materials and is needed investment in processing factories by \$ 20 million each. For 55,557 hectares of tea to produce about 18,000 kg / ha would require 1,000,041,382 kg of tea. If we consider that for every 50 million kilos of tea a processing factory is needed, we would be needing 20 plants of 20 million dollars each, to process 1,000,041,382 kg so to the costs of implementing we have to add \$ 400 million factory, which would have to find investors willing to pay that amount, especially since this level of additional production

would upset the current balance of the tea market and therefore would generate a sharp decline in market value of that product, this observation fits any other product to replace tobacco and does not frame among the cereals.

In the case of substitution and/or diversification for **citrus (tangerine)**, gross yield per hectare is \$ 2,368 more than in the case of Burley tobacco, but keep in mind that if you replace tobacco by tangerines it would take 16,667 hectares and the production would increase to 666,694,100 kg. Considering that 30% of production is exported, we would be sending abroad 200,008,230 kg but in 2010 were exported 11,500,000 kg 17.39 times less than it would have to be exported to achieve the same gross income. Obviously if that amount of kilos would be exported the price would fall automatically as long as we found the markets to put it.

As in the case of tea, for the industrialization of tangerine **it is necessary to invest in packaging plants and processing of juice.** The first requires an investment of approximately U\$S 30,000,000 each, if we multiply this by 17 processing plants needed to 200,008,230 kg gives an investment of U\$S 521,760,600. We also have to think that the juice industry is 70% of total production, about 466,685,870 kg, in 2010,

38,333,333 kg were processed for industry, 12.17 times less than what would have to be processed to achieve the same level of income, which would take about 12 plants of about U\$S 15,000,000 each. To process 466,685,870 kg would have to invest U\$S 182,616,210, which added to the amount of investment for packing plants gives us a total of U\$S 704,376,810. In the same case of tea, we would have to find investors willing to pay that amount.

For the **cultivation of stevia** if you take the performance of the first year of production has a yield of 2,500 kg / ha, a value of \$ 7 per hectare, giving a gross income of \$ 17,500 per hectare, which means 11% more income than Burley tobacco. That positions it as a **good alternative for replacement and would not have to incorporate new hectares to achieve the same gross income.**

### Virginia Tobacco (Salta and Jujuy Provinces)

For the analysis of substitution and/or diversification of tobacco we will use as a basis the 2009/2010 season gross income, this equates to 41,059 hectares harvested a total price of \$12.16 gives a total of \$1,159,165,217.

Taking the yields of the campaign of 2009/2010, it was of 2,322 kg/ha to a value of \$ 12.60 per kg the gross income was \$ 28,231.70 per hectare.

When we compare with **white bean** production, with a yield of 1,100 kg/ha to a value of \$8.82 per kg, giving a gross income of \$9,702 per hectare, it would require 2.91 hectares of beans to achieve the same income by a hectare as Virginia tobacco, which represent 119,476 hectares of white beans.

The same happens in the case of **substituting by soy**. The average yield for soy in the area is of 2,200 kg / ha to a value of \$1.35 per kg, giving a gross income of \$2,970 per hectare. In this case we would need 9.51 times more hectares to achieve the same income, so you should have about 390,221 hectares available.

**To replace Virginia tobacco by corn is exactly the same as in the case of Misiones**, except that in these provinces the crop yield is higher so the amount of hectares needed will be less. Anyway, to replace this production by corn should be taken in mind that the yield is about 8,000 kg/ha to a value of \$0.68 per kg, giving a gross income per hectare of \$5,440. Again **we would need about 5.19 times more hectares of corn to achieve the same gross income of Virginia tobacco.**

In the **case of cotton**, values are similar to those of corn, cotton has a yield of 3,000 kg/ha at a value of \$1.46 per kg giving an expected gross income of \$4,380 per hectare, which 264,649

Virginia Tobacco Production in Salta and Jujuy Provinces.

Campaign	Planted (ha)	Harvested (ha)	Production (kg)	Yield (kg/ha)	Market price + SFT (\$)
2004/05	41,987	39,675	92,124,829	2,322	5.06
2005/06	40,811	37,570	81,990,495	2,182	5.89
2006/07	42,592	38,638	85,643,307	2,217	7.06
2007/08	41,184	38,074	83,090,299	2,182	7.87
2008/09	40,085	40,085	83,294,923	2,078	11.29
2009/10	41,686	41,059	95,326,087	2,322	12.16

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Virginia Tobacco replacement by other Alternative Crops. Comparative.**

Crop	Yield (kg/ha)	Price (\$/ha)	Gross income (\$/ha)	Affected Area (ha)	Initial investment (in millions of dollars)	Years of maduration of the project
Virginia tobacco	2,322	12.16	28,232	41,059	384	-
Alubia bean	1,100	8.82	9,702	119,476	33	1
Soy	2,200	1.35	2,970	390,221	114	1
Corn	8,000	0.68	5,440	-	89	1
Cotton	3,000	1.46	4,380	264,649	95	1

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

hectares are needed to achieve the same level of income, which is **6.45 times the tobacco hectares**.

In addition to the aforementioned crops for both the NEA and NOA there are plenty of crops to replace tobacco, despite of not being economically as profitable and not generating the same amount of direct labour.

In the region of the NEA the following crops can be cultivated: fruit, black beans, horticulture field and under cover, pastures, sugar cane and forestry. In the case of NOA the following productions can be developed: peppers, tomatoes, zucchini, strawberry and other horticultural products (garlic, carrot).

Finally, with regard to labour, we see **tobacco growing demands the largest number of wages per hectare, between 70 and 120 wages per hectare depending on the type, being this crop the largest generator of employment for crops tested**.

The above table shows that **the wage requirements for the selected crops as potential tobacco replacements are much lower**. The culture that is close, but with a difference of 40 wages, is stevia, requiring 80 wages per hectare. Then follows bean with 53 wages. Corn and soy-bean are the crops that less labour need per hectare (0.4 and 0.2 respectively).

**Tobacco replacement by other Alternative Crops. Comparative, wages demanded.**

Crop	Wages/ha	Needed wages compared to tobacco
Tobacco	120,0	-
Corn	0,4	0.3%
Tea	20.0	16.7%
Citrus	27.0	22.5%
Stevia	80.0	66.7%
Bean	53.0	44.2%
Soy	0.2	0.2%
Cotton	28.0	23.3%

Source: E&R, based on data from the Ministry of Agriculture, Livestock and Fisheries and INTA.

With the above, one could argue that **there is currently no activity that generates the demand for labour in the same intensity as tobacco. That is why the replacement, if it occurs, should be gradual and with a job placement program**. Especially considering that in several cases, substitute crops have market limitations.

**Together with the analysis of technical and economic feasibility, target markets for alternative crops must be taken into account, with special determination of the maximum volumes that these markets can absorb without damage of the prices to be achieved.**

In this respect, **prospects of soy in the world, in the medium and long**

**term are positive**, because consumption will increase both for human consumption either as beans, as well as products that add value to the chain.

Even when there may be last gasps affecting soy markets in the world, foresee good prospects for soy future, with falls that would not exceed 3%. Keep in mind that our neighbor country "Brazil" is more technologically advanced, both seeds and machinery level, which can lead us to lower export volumes.

There is an estimated annual growth of around 7% of demand in all soy products (beans, flour, Oil, etc.), so the future can be very good.

As for **white bean, context that are passing the major bean importing countries conditions market behavior**.

Since the late 70's, where the expansion of the agricultural frontier bean crop was chequed, mainly towards warmer areas of NOA, Argentina became a major exporter of this legume concentrating exportations in white bean type alubia.

White bean production was lower than external demand (Spain and Arabian countries), but when supply exceeded demand, prices fell to levels not sustainable for production. This oversupply was due, on one hand to the expansion of production area, the production in our country and also for the international market entry of new exporters of beans, such as Turkey, USA, Peru and Russia, among others.

If Argentina does not exceed its production of between 100,000 and 120,000 tons compensatory prices for producers are achieved.

As for **stevia, it may be noted that presents itself as a product with a large global market integration**.

The strong growth in consumers seeking low-calorie sweets pushed Coca-Cola and Cargill to develop a sweetener derived from stevia, an herb found in Latin America.

This strong entry of both brands in the global industry of sweeteners with the launch of a new natural product without calories, however, faces serious regulatory and production problems.

The new natural sweetener for soft drinks without calories, would compete with the billionaire global market of sweeteners, still dominated by sugar, fructose corn syrup and synthetic sweeteners like aspartame and sucralose.

Moreover, the natural sweetener will also be used in products such as yogurts, cereals, ice cream and candy.

Late last year the World Health Organization (WHO) stated that there is no data on the alleged toxicity of the herb, the bureau says that more information about stevia is needed. The WHO emphasized in seeing the effects on blood sugar levels and possible effects on hypertension.

Stevia was never produced in quantities needed to satisfy a mass market globally. Therefore, it was announced that in the coming years will be invested in developing technologies of cultivation and industrial production in China, Paraguay and Argentina. If stevia testings are successful, its cultivation and production would occupy the first place in current market of sweeteners.

About cotton, grown mainly for its fiber, is universally used as raw material for textile products and is an important commodity in the global economy. Grown in more than 100 countries, cotton is an agricultural product for which there is an important trade, more than 150 countries export or import cotton.

Considering that cotton production will inevitably vary from one year to another, the changes in supply cause large fluctuations in prices. World cotton trade is not excessively concentrated in comparison with other commodities. About 500 companies around the world are dedicated to the export of cotton and represent an important sector in the economies of many developing countries. In many countries, exports of cotton are not only a vital contribution to foreign exchange earnings, but also represent a significant portion of GDP and tax revenue.

For **corn**, the report published by the Department of Agriculture of the United States, **projects a significant growth in global consumption of that wheat.**

This year, the world will reach the biggest corn consumption in its history, stroking the 872 million tons. This projection implies an increase 25.74 million over the previous year's consumption and nearly 11 million tons compared to last month's report.

Until last season, the increase in global corn consumption was supported by the strong increase in demand of corn for ethanol production in the U.S. and in the strong growth in consumption of animal protein in China.

Indeed, this year is China that leads the increase in corn consumption, an increase of 13 million tons over the previous month, rising from 168 million to a record 181 million tons.

The Americans, in contrast falls by 2.5 million tons in domestic consumption of corn for the first time in the last decade, projecting 290.97 million versus 293.38 million last season.

In combination with the increase in global demand for corn, the USDA corrected downwards its estimate of U.S. corn production, with a decline of 7.7

million tons, now reaching 335.3 million versus 343 million the previous month. The adjustment done by the Department of Agriculture has to do with the lower area of planting and harvesting of the new season of corn in the United States, whose evolution in the crops suffered one of the worst delays of the past two decades, due to adjustments of lower final area of planting and harvesting.

It remains to grow 6 % of the initial intention of surface, which represents more than two million hectares or equivalent to 20 million tons. In these circumstances, Argentina should take advantage of seeing this off-season film and act accordingly to capture the demand that Americans can not provide.

Our country can easily sow a million hectares of corn in the coming season 2011/12, it is based on the biology and producer sowing decisions that are moved by expectations.

Furthermore, **global demand for citrus has a future trend of growth**, which opens prospects for production. In a report published by the University of Orihuela (Alicante), Spain, referring to the evolution of the citrus fruit market in the world. The work places citrus fruit as an international leader with a global production of about 90 million tons.

FAO forecasts estimate that this value would be exceeded and would reach 95 million tons. Of the four varieties, oranges account for more than 67 % of production, and is followed with 17 % by tangerines, lemons 10 % and grapefruit 6 % of production. Although the main destination of the fruit is fresh consumption, the percentage that goes to industrialization for obtaining derivatives, including juices is high.

Currently Brazil is the leading manufacturer and exporter of citrus juices,

because it handles large volumes and low production costs. The second producer is the United States.

As the **world market of tea**, several studies (quantitative studies, focus groups and discussion) shows that the penetration of tea consumption in homes exceeds 90%. Which leads to widespread expectations that increased production will be absorbed by the market.

Consumption will grow as the consumer perception appreciates the taste, they find it enjoyable to take it, weigh the quality and associate, as a positive feature, with the ritual or ceremonial, which generates its preparation. The various meanings associated with the tea links it with: do something nice for someone else or for yourself, enjoy a relaxing moment, attend or treat yourself when you are sick, a ritual in the afternoon, take comfort in the cold, rest, calm, relieve stress, aid digestion, quench thirst, a ceremonial display, share a moment with friends, family, entertaining, especially when it comes with cake.

Tea production is mainly destined for export; more than 90% of the total obtained is placed in foreign markets behavior that is maintained since 1999.

### FINAL COMMENTS

As a closing, the most important data presented throughout this study will be set out to show the importance of the tobacco industry in some provinces of Argentina.

In Argentina, tobacco production is concentrated in the Northwest (NOA) and Northeast (NEA) of our country. There are seven provinces for the tobacco cultivation. These are, in order of importance of production, Jujuy, Salta,

Misiones, Tucumán, Corrientes, Chaco and Catamarca.

Overall, in the last season 2010/2009 they have generated a production value of \$ 1,532 million, with 133 million kilos of tobacco produced on a cultivated area of 78,304 hectares.

The different types of tobacco produced in our country in order of importance according to the volume produced are: 72% Virginia, Burley 26% characteristics of Salta and Jujuy, and Criollos (from Salta, from Misiones, from Corrientes and from Chaco) with 2%.

The production of tobacco in the 2010/2009 campaign involved 17,243 producers located in the provinces of Misiones (65.6%), Salta (9.8%), Tucumán (9.2%), Corrientes (8.2%), Jujuy (5.3%), Chaco (1.1%) and Catamarca (0.9%).

While in the provinces of NOA (Catamarca, Jujuy, Tucuman and Salta) farmers are highly technified, and nationally contribute over 77% of tobacco produced; in the NEA provinces (Chaco, Corrientes and Misiones), most of producers are smallholders, being Misiones (22% of tobacco produced) the most important province, using family labour, nearly 50% of the production takes place in establishments with areas up to 2 hectares.

The tobacco production and industrialization becomes extremely important in both economic and social terms for the country and the 7 Northern provinces.

The tobacco production generates an economic value within the country and to each province, which can be measured by its gross value of production.

Nationally, this sector accounted for 0.2% to Gross National Product in 2009, equivalent to 0.9% Agriculture, livestock, hunting and forestry, while in the

Tobacco industry in numbers. Campaign 2009/2010	
<b>Primary sector</b>	
Planted areas in hectares	78,304
Harvested area in hectares	67,674
Numbers of producers	17,243
Total tons	132,870
<b>Haarding</b>	
Market price + SFT (millions of \$)	1,532
<b>Sales</b>	
Total value of sales of cigarette packs of 20 units (millions of \$)	11,418
<b>Share in GNP</b>	
	<b>0.20%</b>
<b>Tax collection</b>	
Total collection in millions of \$	7,884
<b>External trade</b>	
Imports in US\$	56,672,146
Exports in US\$	306,510,437
<b>Labour (in employment)</b>	
Primary sector	49,518
Buying/receiving station and processing plant workers	5,800
Administrative employees	3,102
Wholesale/retail distribution employees	2,334
Stalls	110,000
Total numbers of people who depend on tobacco	540,932

Source: E&R.

secondary or industrial stage of the tobacco chain, the Gross Value of Production reached to 0.7% of gross domestic industry.

In provinces like Jujuy activity participation in the Gross Geographic Product (GGP) reaches 35.7%, while Misiones reaches 12.9% of GGP, and Salta 7.6%, with a high share of the tobacco activity within provincial agriculture.

Moreover, the tobacco industry gives an important contribution to the generation of labour employed. Its importance as a job-creating sector if we consider the high labour intensity in the primary stage of processing compared to other major crops in terms of production and planted area nationwide is hard to match.

Particularly, tobacco has labour requirements reaching an average of 120 wages per hectare. In the case of soy, wheat and corn, that number is 0.44 wages per hectare.

Nationwide, the tobacco industry required an average of 8,194,160 wages for the last season (2009/10). Salta is located in first place of importance with 2,604,870 wages, followed by Misiones (2,550,970), Jujuy (2,356,200), Tucumán (383,670), Corrientes (182,410), Catamarca (59,790) ending with Chaco (56,250).

Measured in employment tobacco growing created 49,518 jobs during the 2009/10 season. This number is equivalent to 15% of jobs generated by agriculture, forestry and fisheries nationally in 2010, to 2.2% of jobs generated by the

goods-producing sectors in the same year and 13.2% of jobs created in the seven tobacco-producing provinces by the public sector in 2010.

At regional level, in 2009/10 season the tobacco primary production generated 9.10% of registered private employment in the seven tobacco provinces and 1.9% of total employment.

In the Province of Misiones the relationship between tobacco-cultivation employment and public employment was 43.3%, while in Jujuy and Salta, the same numeral stood at 29.4% and 23.2% respectively.

In terms of type rural families (3.5 members), the tobacco industry involves 173,313 people who depend on tobacco-farming for their livelihood, that is to say 6.27% of total rural population of the country.

Additionally, within some of these provinces, many departments rely almost entirely on the activity.

In Misiones can be seen that in places like Guaraní, one of the departments with the largest number of tobacco farmers (3,655 farmers) and 19,696 households surveyed in that locality, the dependence of families with the tobacco industry, reached 18.6% of households.

In the department of 25 de Mayo, although it is less the number of tobacco farming families (1,958), the ratio of households that depend on the tobacco industry reaches 24.3%. Moreover, in the department of San Pedro, which concentrates 1,005 farming families, the ratio of households that depend on the tobacco industry rises to 11.5% of the total.

In Salta, La Viña department has the highest number of households that depend on tobacco activity for their livelihood, reaching 12.5% of total households

(1,869) present in this provincial town according to the Census population 2010.

In Tucuman, two departments particularly depend heavily on the tobacco industry. The department of La Cocha 19.1% of households depend on the tobacco production. While in the department of Juan B. Alberdi, this dependence reaches 13.8% of all households in the region.

Taking tobacco chain as a whole, in 2010 we can speak (nationally) of 170,754 workers depending on the tobacco production, commercialization and industrialization for their livelihood, equivalent to 1% of the employed population nationally (17,023,248) and 540,932 people around the family group, 1.35% of the total population.

At national and provincial level, the tobacco industry generates a significant source of tax revenue to the treasury, through two channels: the federal system of sharing federal tax (VAT, Internal and Emergency Supplemental) and provincial tax revenues, as Tax on Gross Income.

In the last 5 years the tax contribution of the tobacco industry has been close to \$28,500 million, an average of \$5,700 million annually, slightly higher than the tax on liquid fuels (+0.3%) and much higher than personal goods. This collection has remained constant relative to the size of the economy, with an average ratio of 0.56% of GDP. In terms of distribution, it appears that the National Government is the main beneficiary, since it takes 50% of the generated resources, while the remaining half is distributed among the provinces (39%) and producers (11%).

To achieve the replacement and/or diversification of the tobacco production, the profitability of alternative crops

should be the key to success. It is fundamental to persuade farmers to turn to other crops.

At the NEA, the growing diversification of tobacco turns to the following crops: citrus, vegetables, corn, beans, forestry, while the NOA does it through the oilseeds, fruits and vegetables.

With respect to labour we see tobacco growing demands the largest number of wages per hectare, between 70 and 120 wages per hectare depending on the type, being this crop the largest generator of employment with respect to other crops analyzed.

The crop that is close, but with a difference of 40 wages, is stevia, requiring 80 wages per hectare. Then follows the bean 53 wages, and corn and soybean crops to less labour needed per hectare (0.4 and 0.2 respectively).

For all the above, one could argue that nowadays there is no activity that generates the demand for labour in the same intensity as tobacco. That is why the replacement, if it happens, should be gradual and with a job placement program.

It should be noted that the Ministry of Agriculture, Livestock, Fisheries and Food of the Nation understands that tobacco, because of the importance to regional economies and consumer preferences can not be ruled out of domestic production, but is aware of the need to develop a more friendly product with environment and the consumer, respecting a set of parameters that distinguish the Argentine product (target outlined in Resolution SAGPyA. No. 520/2004).

Therefore, under the frame of the tobacco industry proposed in the Law No. 19,800 this Department impels, from several years ago, changes to tobacco production operative, trying to

revitalize and modernize it. In this regard, it seeks to adapt to the Special Fund of Tobacco(SFT) providing it with financial mechanisms by which credit, technical and social support can be maximized, both for the tobacco industry to undertakings arising from the restructuring of the sector.

Thus was created the Conversion Project of Tobacco Areas (CPTA), with funding from the SFT, whose main objective is to guide, coordinate and monitor actions to achieve modernization, conversion, complementation and diversification of tobacco areas, both in primary production and associated agribusiness chain, protecting the environment and welfare of the producer and consumer.

In this sense, the guidelines of the national tobacco policy, tend to improve the qualities of tobacco, both in regard to the impact on the ecosystem, and in regard to the smoker's health and welfare of the producer. Hence, among the patterns is determined that the value of smoking, 7% of it is earmarked to complete these guidelines, funding actions ranging from the replacement of production and/or its complement, to the care of the environment, provision of extra resources to adverse weather, as well as care of the producer's income.

Among the main actions of the project can include programs to improve the marketing system and develop tobacco production, promote complementation of tobacco production to other primary and agro industrial diversifying income and reducing risk. Support for diversification, modernization and conversion of tobacco industry through technical assistance and training for producers, support the producer with differentiated credits for tobacco diversification, technification and reconversion of its

exploitation. Promote overcoming problems associated with the system of land tenure, and within the guidelines of the national tobacco policy, prioritises actions to improve the qualities of tobacco, both in its impact on the ecosystem, as in the smoker's health and welfare of the producer.

### To sum up...

Tobacco, as a generic product is high worldwide consumption, with a tradition of over 500 years. While in developed countries there is a slight tendency to decrease, those who are in developing countries have a stronger tendency to increase. Thus, efforts by many health agencies to raise awareness about the danger that its use can mean and agreements with many countries to protect non-smokers, the increase of global consumption does not drop.

In Argentina there are different types of tobacco that determine different types of products able to satisfy different demands. This production and its value chain, are major generators of jobs and activities. To achieve the tobacco-production replacement without damaging the economic and social level reached by this activity creates great difficulties.

In such a situation would not be recommended that Argentina takes restrictive

measures for their production directly or indirectly nor the policies that could be made for reducing it, because on one side if the other bidders not do the same globally, it would leave a hole on the side of supply that would be immediately covered by them, missing markets and adversely affecting our trade balance and foreign exchange earnings.

On the other hand in the tobacco producing areas, there have been made so many technological efforts that a production decrease would impact in the total income unbalancing employment levels with a tendency to lower labour occupation. At the social level the potential development of the farmers would also become affected because they would crack productive and social structures built around tobacco. Only replacing immediately or over time (with the costs involved) tobacco activity by other having equal or higher profitability and labour absorption could remedy the problem.

Not to undermine tobacco production would not mean that tobacco industry in Argentina would stand off from awareness guidelines for smokers nor the protection of nonsmokers that has the World Health Organization and regardless of that, measures could be addressed to consider consumption and consumers.

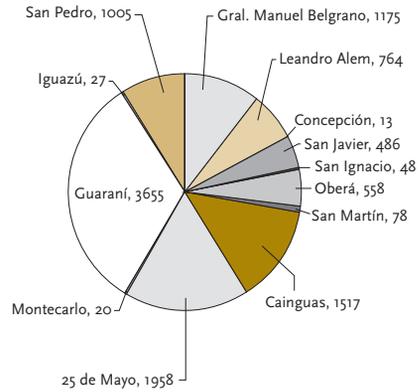
# ANEX I

## TOBACCO ACTIVITY ANALYSIS BY PROVINCE



## TOBACCO ACTIVITY ANALYSIS BY PROVINCE

### MISIONES PROVINCE



Province map and numbers of farmers by department. Campaign 1989-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

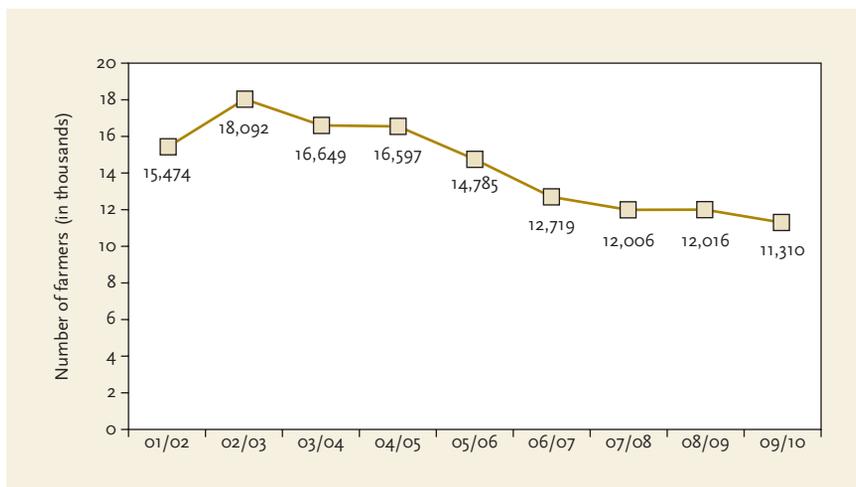
Misiones has 11,310 tobacco producers, of which the highest percentage is in the Department of Guaraní (33%). 25 de Mayo (18%), Cainguas (14%), General Manuel Belgrano (10%), San Pedro (9%), the remaining 16% is distributed in different departments.

Since 2002 there has been a significant fall in the number of farmers in the

province of Misiones. After the record year 2002 (18,092 farmers) the number of farmers is falling consistently, arriving in the year 2010 to 11,310 farmers.

Regarding the tobacco production registered in the Province of Misiones, the trend is downward although in the 2008-2009 season a recovery was observed after the fall of 2007/08, but last

## REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)



Evolution of tobacco-farmers, 2001-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### Tobacco production. Misiones province.

Campaign	Area (ha)		Production (kg)	Value in thousand of \$ (Market price + SFT)
	Planted	Harvested		
2001/02	25,519	24,630	39,424,292	115,808
2002/03	29,160	26,922	29,582,344	138,820
2003/04	30,178	29,337	47,992,954	220,649
2004/05	35,232	32,770	52,388,944	251,333
2005/06	30,606	29,462	44,805,608	230,263
2006/07	28,136	26,444	33,999,948	192,268
2007/08	27,295	22,410	36,010,679	276,106
2008/09	30,646	26,353	41,045,594	401,030
2009/10	28,581	19,192	29,412,975	304,274

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

season production returned to decrease.

To calculate the estimated labour in primary production, we took the average amount of wages required for each variety of tobacco and then multiplied it by the number of hectares planted for each variety.

In this province for Burley tobacco are estimated 2,476,350 wages, while for the Criollo variety 74,620 wages in the 2009/2010 season. Totaling in the

province 2,550,970 wages in all activities at primary level.

The following table shows how representative is the demand for labour by the tobacco industry on both the public employment (43.3%) and private employment (5.8%).

With regards to the leaf-buying companies in the province, the highest percentage is held by the Cooperativa Tabacalera de Misiones (36%), followed by Massalin



Production 2001-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Estimation of labour employed in tobacco sector and its weight in Misiones' employment. Year 2010.						
	Hectares by tobacco type	Wages per hectare	Total wages	Employment	Private sector (%)	Public sector (%)
Virginia	0	120	0	0	0.0	0.0
Burley	27,515	90	2,476,350	20,636	5.7	42.3
Criollo	1,066	70	74,620	497	0.1	1.0
<b>Total</b>	<b>28,581</b>	<b>-</b>	<b>2,550,970</b>	<b>21,134</b>	<b>5.8</b>	<b>43.3</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



Proportion of tobacco. Kg collected by company. 2009-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Particulares S.A. (29.8%), Universal Leaf Tobacco SA (16.4%), C.I.M.A. S.A. (11.8%), Blasa - Bompland Leaf Argentina S.A. (5.6%), and with lower participation the Cooperativa de San Vicente (<1%).

Note that the Misiones province contributes 30% of total production in the country and the crop is among the major production complexes.

In 2010, tobacco exports reached US\$ 70.9 million. Among the main exported products, the tobacco went from being the second most exported product (23% of total) to third place, with 13.5% of total exports, behind the cellulose pulp (34.2%) and tea (17%).

Main Products in Misiones Province. Years 2003-2009										
Product	MU	2003	2004	2005	2006	2007	2008	2009	Share of national total (%)	Source
Cattle stock	cab.	s/d	s/d	s/d	s/d	s/d	353,232	391,765	0.7	RIAN INTA-SENASA
Tobacco growing	ton	29,582	47,992	52,389	44,806	34,000	36,010	41,046	30.3	MAGyP
Tea growing	ton	285,750	289,220	281,010	325,331	381,658	332,191	328,882	96.0	MAGyP
Dried yerba mate	ton	s/d	416,125	691,583	803,967	752,897	694,572	650,224	79.6	INYM
Orange	ton	15,295	19,368	19,266	17,796	13,469	12,960	9,581	1.1	Federicitrus
Tangerine	ton	29,108	39,938	35,590	37,183	49,471	50,776	47,601	11.9	Federicitrus
Implanted forest round logs	ton	5,157,430	4,807,291	2,992,072	4,677,277	4,084,231	3,804,998	s/d	53.1	MAGyP
Native forest round logs	ton	250,079	297,863	350,920	292,284	231,007	142,771	s/d	16.0	SAYDS
Paper pulp	ton	470,853	479,559	449,949	469,649	435,3790	342,912	s/d	34.3	MAGyP
Paper	ton	91,250	94,368	90,121	96,005	95,554	92,554	s/d	5.4	MAGyP
Fiber boards	m <sup>3</sup>	261,544	265,643	277,967	298,473	303,234	298,750	s/d	37.5	MAGyP

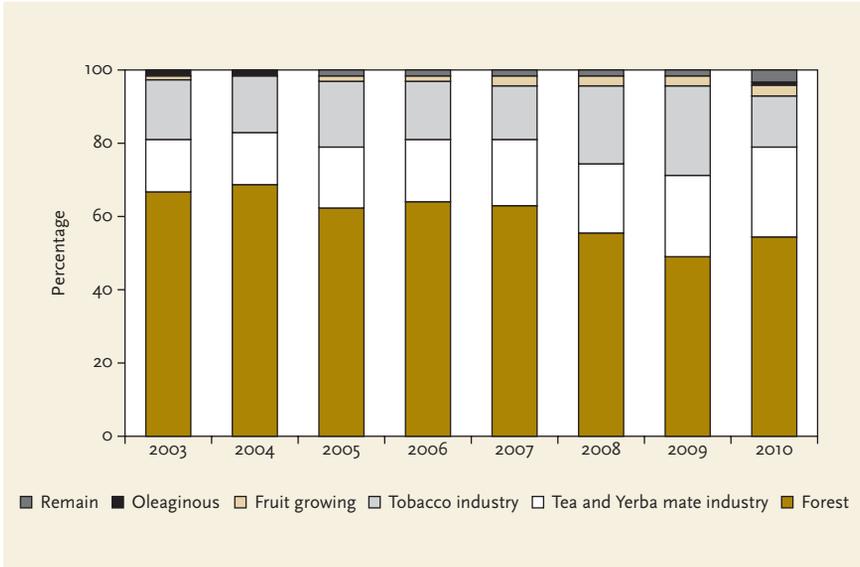
Share corresponds to the last year for which data are presented.

Source: MECON.

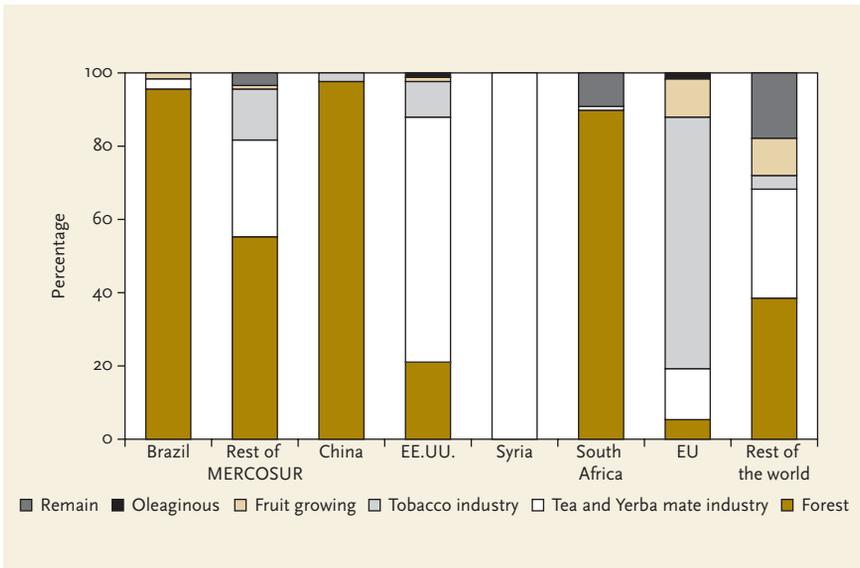
Main exported products. Year 2010			
Product	Complex	Value (millions of US\$)	Share of provincial total (%)
Cellulose paste	Forest	179.5	34.3
Tea	Tea and Yerba mate industry	89.2	17.0
Tobacco	Tobacco industry	70.9	13.5
Pine sawnwood	Forest	38.7	7.4
Wooden Boards (+ 9 mm)	Forest	34.3	6.5
Yerba mate	Tea and Yerba mate industry	30.3	5.8
Other pine woods	Forest	13.2	2.5
Other boards	Forest	13.1	2.5
Tangerine	Fruit growing	9.2	1.8
Citric fruit juice	Fruit growing	4.6	0.9
Total		483.0	92.0

Source: MECON.

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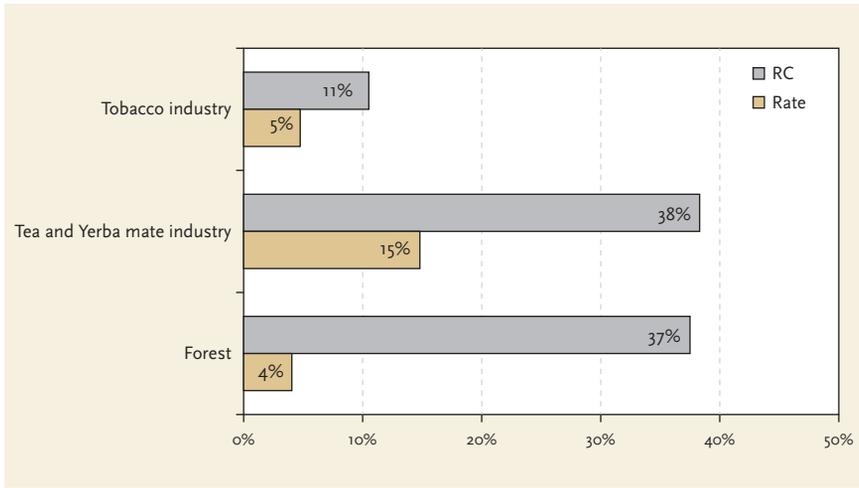


Development of exports of major production complexes. 2003-2010.  
Source: MECON.



Export complexes according to the target market. Year 2010.  
Source: MECON.

REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)



Average annual growth rate and relative contribution to the growth of the main complexes. 2003-2010. Source: MECON.

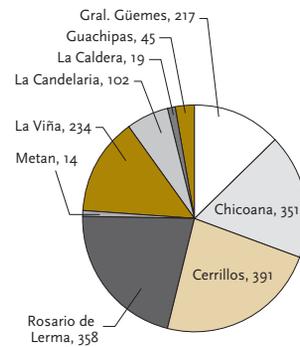
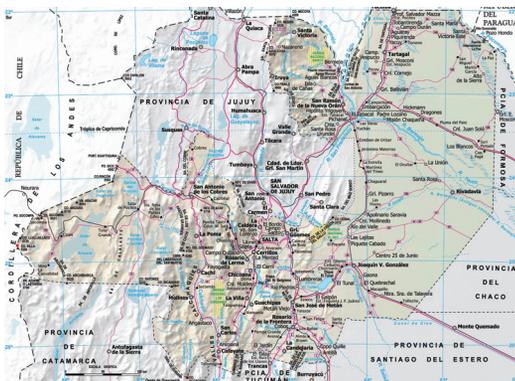
Between 2003 and 2010, the tobacco complex contributed 11% to the growth of the main production complexes, while tea and yerba mate complex contributed 38% and forest 37%. The contribution to the tobacco industry growth reached 5%.

However, in 2010, it appears that the tobacco industry maintains its share in exports getting 24%. This trend would

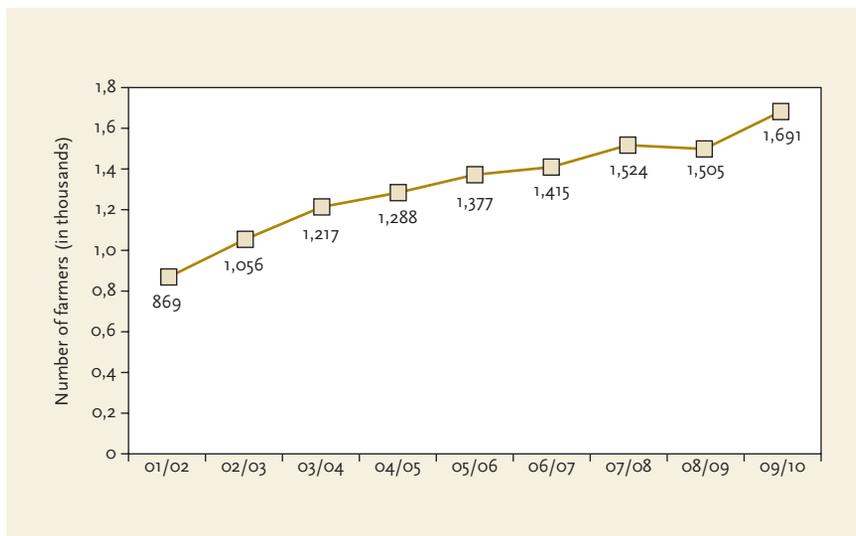
be occurring from the year 2006 after the fall of 2004.

Within what is exported to the European Union (17% of total exports of the province), about 75% corresponds to the tobacco industry. Another important destination is the United States with 10% of total exports that are from the sector.

**SALTA PROVINCE**



Province map and numbers of farmers by department. Campaign 1989-2010. Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



Evolution of tobacco-farmers 2001-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Salta has 1,691 tobacco producers, of which the highest percentage is in the Department of Cerrillos (23%), followed by Rosario de Lerma (21%), Chicoana (18%), La Viña (14%), General Güemes (13%), the remaining 11% is distributed in different departments of the province.

Contrary to what happened in the Province of Misiones, the evolution of farmers in Salta between 2001 and 2010 has seen a significant growth, doubling the number of farmers (+95%).

The same happens with the production levels, which would present an upward trend.

In the province of Salta is estimated that it took 2,545,440 wages in 2009/10 season for the Virginia variety and 59,430 wages for the Criollo variety. Is worth mentioning that Virginia tobacco is the one that needs more labour requirement per season. Totaling the province 2,604,870 wages. Being Virginia variety the one that required

the greatest amount of wages in the 2009/2010 season.

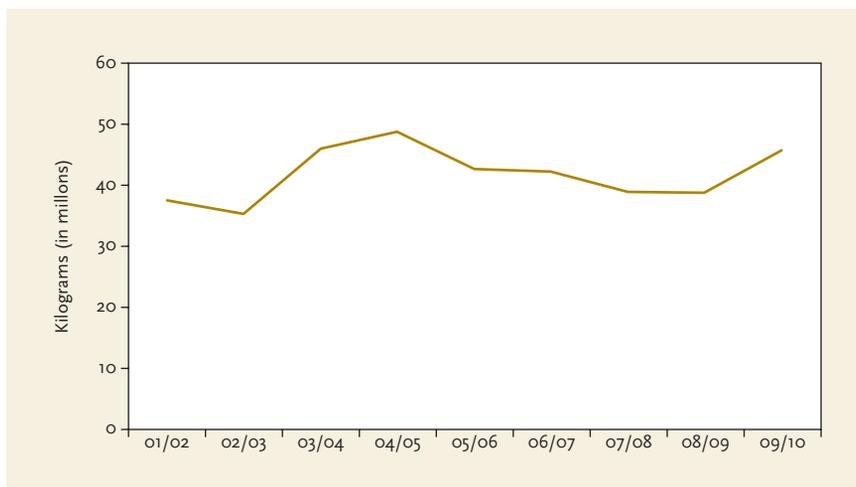
The representation of labour demand by the tobacco industry by the year 2010 compared to public employment was 23.3% and 2.8% when compared with private employment.

Regarding leaf-buying companies, the highest percentage is held by Cooperativa Tabacalera de Salta (45.4%), followed by Alliance One Tobacco (19.7%), Masalin Particulares S.A. (15%), TABES S.A. (13.3%), and with the lowest participation Cooperativa Salteña de Tabacos (6.5%).

It should be noted that the province of Salta contributes almost 29% of the total tobacco production in the country and is among the major production complexes in its territory.

In 2010, the tobacco industry generated U\$S 98.4 in exports. Among the main products exported, tobacco (9.7%) is in fourth place regarding provincial share,

## REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)



Production 2001-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### Tobacco production. Salta province.

Campaign	Area (ha)		Production (kg)	Value in thousands of \$ (Market price + SFT)
	Planted	Harvested		
2001/02	15,081	15,081	37,593,322	115,313
2002/03	16,807	15,353	35,381,457	192,860
2003/04	20,367	19,241	46,033,897	258,844
2004/05	22,887	21,275	48,898,635	257,407
2005/06	22,187	19,973	42,711,277	249,449
2006/07	23,547	21,058	42,329,468	295,728
2007/08	21,776	19,245	39,030,949	313,160
2008/09	21,239	21,239	38,856,327	443,419
2009/10	22,061	21,434	45,864,600	570,220

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### Estimation of labour employed in tobacco sector and its weight in Salta's employment. Year 2010

	Hectares by tobacco type	Wages per hectare	Total wages	Employment	Private sector (%)	Public sector (%)
Virginia	21,212	120	2,545,440	12,121	2.8	22.4
Burley	0	90	0	0	0	0
Criollo	849	70	59,430	396	0.1	0.7
<b>Total</b>	<b>22,061</b>	<b>-</b>	<b>2,604,870</b>	<b>12,517</b>	<b>2.8</b>	<b>23.2</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

## Main products in Salta Province. Years 2003-2009.

Product	MU	2003	2004	2005	2006	2007	2008	2009	Share of national total (%) <sup>1</sup>	Source
		s/d								
Cattle stock	cab.	743,000	821,200	733,748	1,367,338	1,361,000	968,929	1,037,024	1.9	INTA-SENASA
Caprine stock	cab.	105,400	109,250	139,450	56,150	191,660	s/d	312,799	7.7	INTA-SENASA
Soy	ton	35,381	46,034	48,899	42,711	42,329	182,480	1,311,296	4.2	MACyP
Wheat	ton	151,450	106,600	122,570	245,150	254,140	39,031	225,820	2.7	MACyP
Tobacco	ton	11,450	16,650	85,550	85,550	85,500	257,500	38,856	28.7	MACyP
Bean o White bean	ton	59,085	59,125	108,250	108,250	117,000	182,400	105,300	72.3	MACyP
Lemon	ton	95,256	101,250	199,500	199,500	188,400	182,400	173,250	8.4	Federicitrus
Grapefruit	ton	208,354	202,432	246,035	252,762	250,841	292,034	238,500	11.7	Federicitrus
White and raw sugar	ton	147,223	181,596	174,108	186,326	193,791	189,839	160,254	11.2	Federicitrus
Wines	hl	243,080	316,413	302,741	263,039	282,612	338,050	s/d	1.3	CAA
Borates	ton	8,379,287	7,415,236	7,071,011	7,011,790	6,790,899	6,842,261	6,238,122	43.0	INV
Natural gas	m <sup>3</sup>	880,088	810,309	742,535	686,441	727,334	722,339	651,183	12.4	Sec. de minería
Petroleum	m <sup>3</sup>								1.8	Sec. de minería

Share corresponds to the last year for which data are presented.

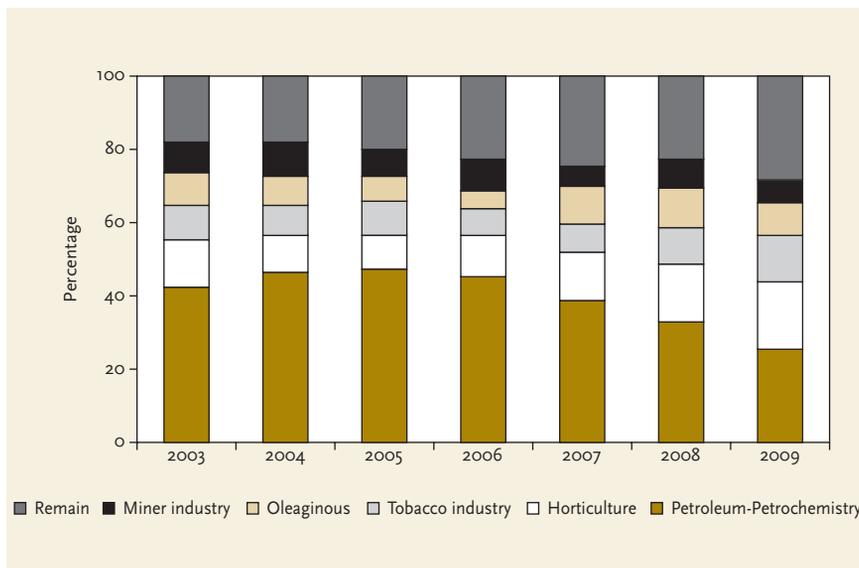
Source: MECON.

## Main Exported Products. Year 2010

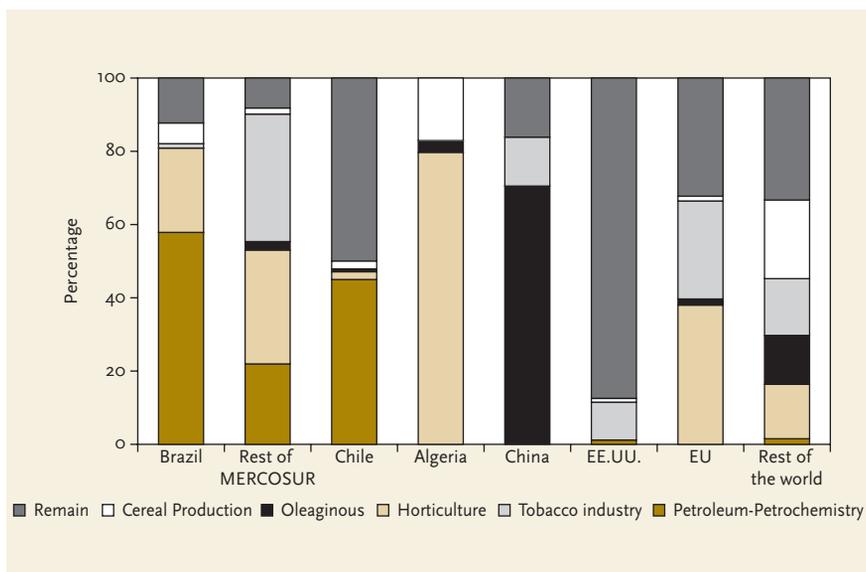
Product	Complex	Value (millions of US\$)		Share of provincial total (%)
		Value (millions of US\$)	Share of provincial total (%)	
Soy	Oleaginous	156.9	15.5	15.5
Gasoline for petrochemistry	Petroleum-Petrochemical	147.1	14.5	14.5
White beans	Horticultural	100.9	10.0	10.0
Tobacco	Tobacco industry	98.4	9.7	9.7
Black beans	Horticultural	61.9	6.1	6.1
Corn	Cereal production	47.2	4.7	4.7
Gas	Petroleum-Petrochemical	39.8	3.9	3.9
Other beans	Horticultural	25.2	2.5	2.5
Electric power	Electric power	23.4	2.3	2.3
Lithium chloride	Miner industry	23.4	2.3	2.3
Total		724.2	71.5	71.5

Source: MECON.

REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)



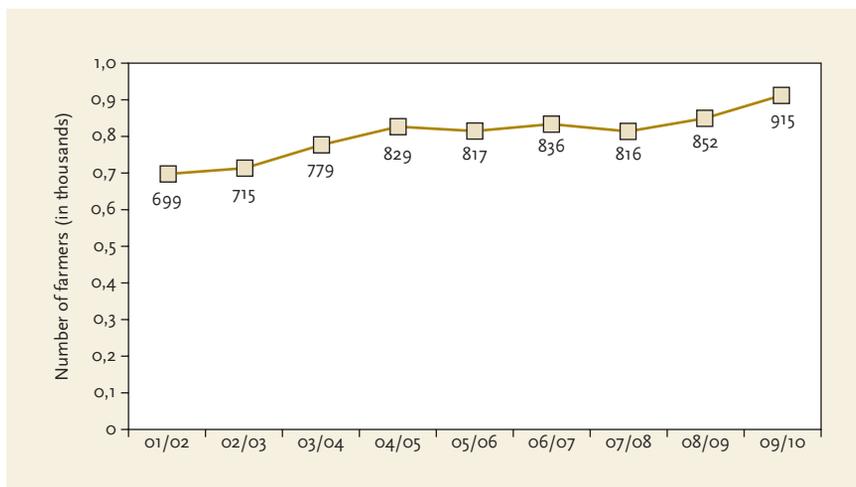
Development of exports of major production complexes. 2003-2010.  
Source: MECON.



Exports complexes according to target market. Year 2010.  
Source: MECON.



## REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)



Evolution of tobacco-farmers 2001-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### Tobacco production. Jujuy province.

Campaign	Area (ha)		Production (kg)	Value in thousands of \$ (Market price + SFT)
	Planted	Harvested		
2001/02	14,986	14,986	35,846,505	106,823
2002/03	15,375	14,377	35,690,269	185,946
2003/04	19,018	18,418	45,167,273	243,901
2004/05	19,100	18,400	43,226,194	206,621
2005/06	18,624	17,597	39,279,218	232,926
2006/07	19,045	17,580	43,313,839	307,961
2007/08	19,408	18,829	44,059,350	339,698
2008/09	18,846	18,846	44,438,596	493,713
2009/10	19,625	19,625	49,461,487	587,602

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### Estimation of labour employed in tobacco sector and its weight in Jujuy's employment. Year 2010

	Hectares by tobacco type	Wages per hectare	Total wages	Employment	Private sector (%)	Public sector (%)
Virginia	19,635	120	2,356,200	11,220	5.0	29.4
Burley	0	90	0	0	0	0
Criollo	0	70	0	0	0	0
<b>Total</b>	<b>19,635</b>	<b>-</b>	<b>2,356,200</b>	<b>11,220</b>	<b>5.0</b>	<b>29.4</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

## Main products in Jujuy Province, Years 2003-2009.

Product	MU	2003	2004	2005	2006	2007	2008	2009	Share of national total (%) <sup>1</sup>	Source
Tobacco	ton	35,690	45,168	43,226	39,279	43,314	44,059	44,439	32.8	MACyP
White and raw sugar	ton	495,584	469,878	504,862	523,359	483,621	574,901	524,333	24.7	CAA
Bean	ton	33,220	22,350	26,900	36,140	33,730	33,950	29,176	10.8	MACyP
Orange	ton	105,515	110,790	110,790	88,570	114,270	105,128	114,270	11.7	Federicitrus
Tangerine	ton	22,540	23,667	23,667	18,500	25,040	23,037	24,675	5.7	Federicitrus
Grapefruit	ton	22,500	23,625	23,625	13,450	12,250	11,270	13,690	4.7	Federicitrus
Cultivated forest round logs	ton	133,035	106,419	132,496	104,667	135,444	85,538	s/d	9.6	MACyP
Paper pulp	ton	59,570	78,830	102,911	102,890	100,177	101,424	s/d	10.2	MACyP
Paper	ton	86,871	90,228	148,305	35,221	151,962	149,794	s/d	8.8	MACyP
Borates	ton	267,137	481,192	316,021	248,220	351,266	406,498	s/d	51.7	Sec. de Minería
Zinc	ton	29,839	27,220	30,227	29,808	27,025	30,349	s/d	100.0	Sec. de Minería
Silver	kg	19,950	16,203	19,788	21,014	33,705	42,722	s/d	12.0	Sec. de Minería
Lead	ton	12,079	9,551	10,683	12,064	17,045	20,788	s/d	100.0	Sec. de Minería

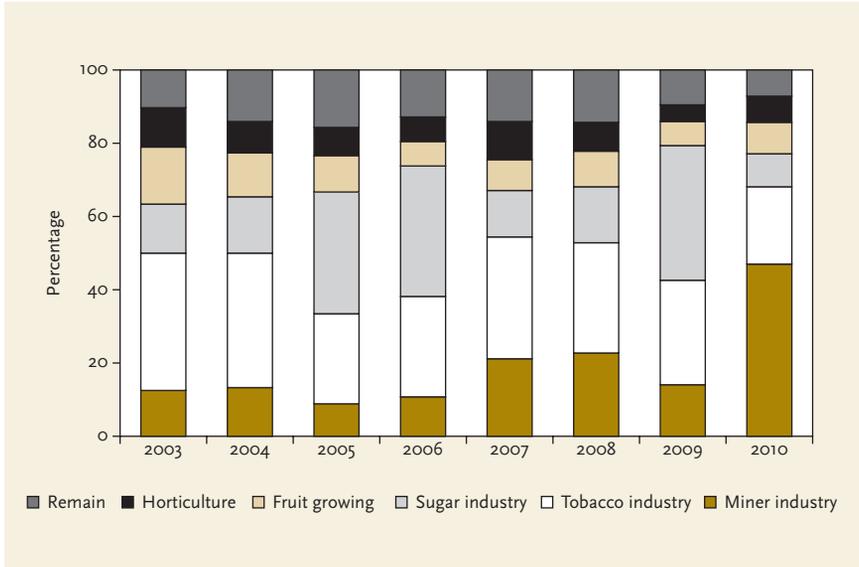
Share corresponds to the last year for which data are presented.  
Source: MECON.

## Main exported products, Year 2010

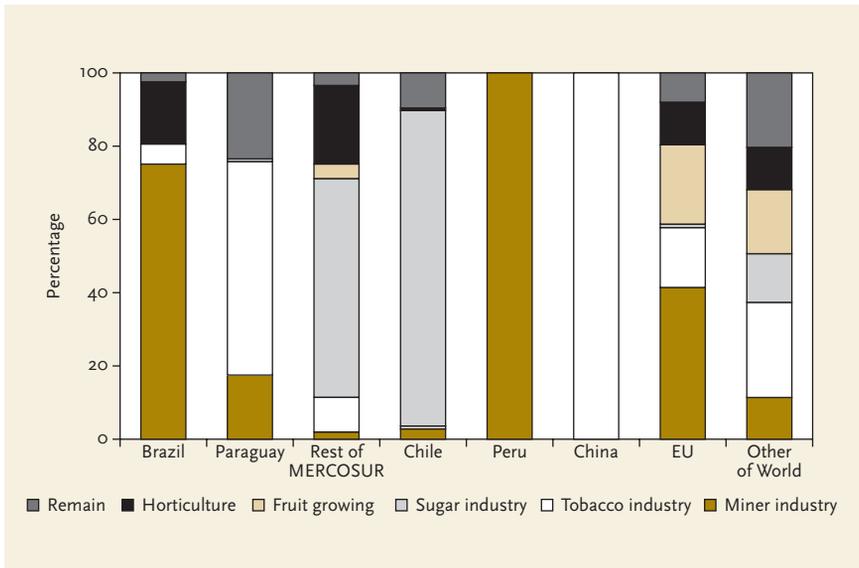
Product	Complex	Value (millions of US\$)	Share of provincial total (%)
Silver minerals	Miner industry	93.2	25.9
Tobacco	Tobacco industry	69.1	19.2
White sugar	Sugar industry	28.7	8.0
Refined lead	Miner industry	24.8	6.9
Lead	Miner industry	20.3	5.6
White bean	Horticultural	13.1	3.6
Boric acid	Miner industry	11.3	3.1
Silver	Miner industry	8.4	2.3
Black bean	Horticultural	8.0	2.2
Wheat four	Cereal production	6.5	1.8
Total		283.4	78.6

Source: MECON.

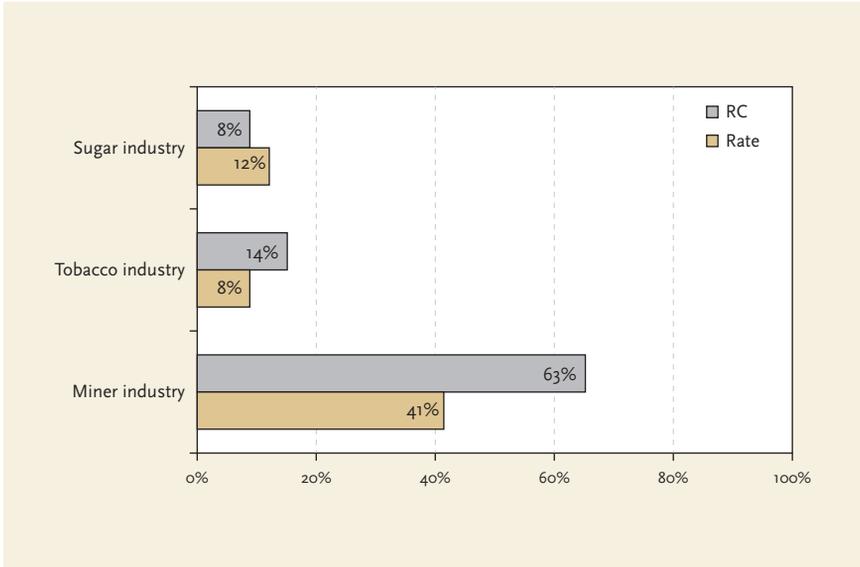
REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)



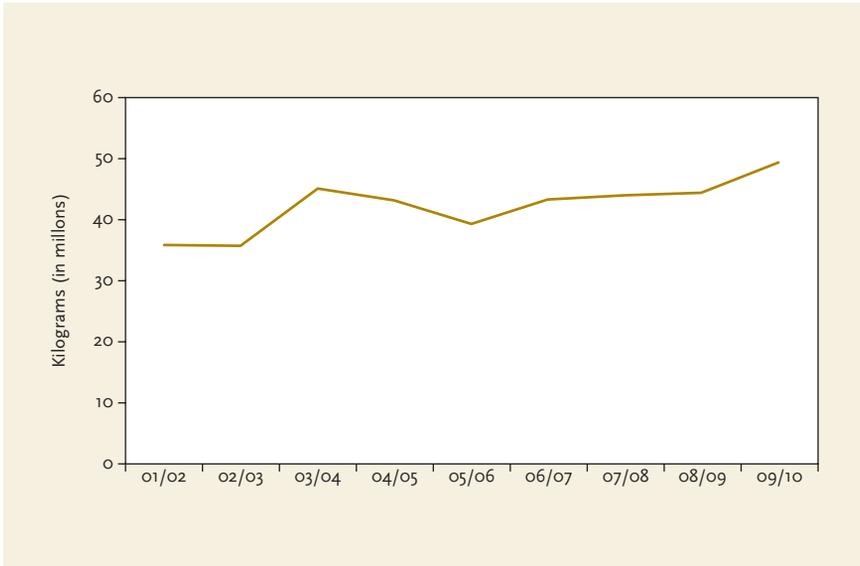
Development of exports of major production complexes. 2003-2010.  
Source: MECON.



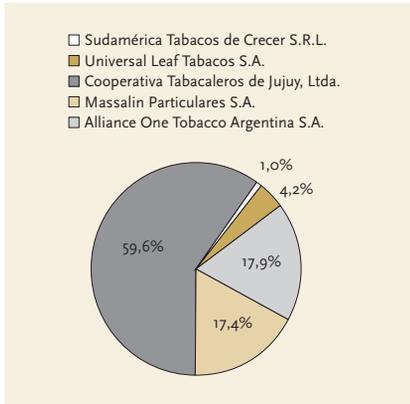
Export complexes according to target market. Year 2010.  
Source: MECON.



Development of exports of major production complexes. 2003-2010.  
Source: MECON.



Export complexes according target market. Year 2010.  
Source: MECON.



Proportion of tobacco. Kg collected by company. 2009-2010. Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Unlike the rest of the provinces where at least two tobacco varieties are grown, Jujuy has only Virginia variety. The total labour requirement for the 2009/2010 season would be 2,356,200 wages.

**Estimation of labour employed in tobacco sector and its weight on Jujuy’s employment. Year 2010**

In the province, labour demanded by the primary activity for the 2009/2010 season would be 29.4% compared to public employment and 5% to the private sector.

Regarding leaf-buying companies, the Cooperativa Tavacalera de Jujuy has the highest percentage (59.6%), followed by Alliance One Tobacco (17.9%), Massalin Particulares S.A. (17.4%), Universal Leaf Tobacco S.A. (4.2%), and Sudamericana and Montecarlo Tabacos with the lowest participation (1%).

Note that the Jujuy province accounts almost 32.8% of total tobacco production in the country and this growing is among the major production complexes.

In 2010 the tobacco industry generated U\$S 69.1 million in exports. Tobacco

is the second product exported by the province (19.2%) after silver minerals (25.9% of total exports), ranking third, white sugar (8%).

Between 2003 and 2010, the tobacco complex had an annual average growing of 14%, although the mining complex experienced a higher growth, reaching 63%. Third would be the sugar industry, with 8% growth between points. Regarding the contribution to growth, tobacco industry would be in third place with 8%, mining with the first with 41%; and secondly, sugar sector with 12%.

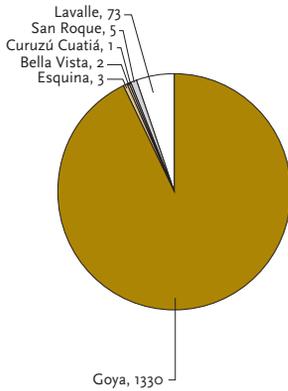
In 2010, tobacco industry participated with 22% in total exports of the main production complexes, participation that has been declining since 2007.

By analyzing the main destinations for exports within the complex selected shows that for China 100% of the exports are of tobacco, while to Paraguay the participation of the sector is 60%, towards the European Union is a 15% and the rest of the world’s countries is 27%.

**CORRIENTES PROVINCE**



Province map.



Numbers of farmers by department. Campaign 1989-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Corrientes province has 1,414 tobacco producers, of which the highest percentage is in the Department of Goya (94 %),

followed by Lavalle (5 %), the remaining 1 % is distributed in the departments of San Roque, Esquina, Bella Vista and Curuzú Cuatiá.

In Corrientes the number of farmers continues a downward trend from the 2003/2004. The points fall between 2001-2010 was 61 %.

Looking at the output recorded in the province there is a downward trend from 2006/07.

Corrientes grows three varieties of tobacco. For Virginia tobacco required 7,560 wages in the last campaign, while Burley took only 2,790 wages due to reduced amount of hectares devoted to it. For Criollo required about 172,060 wages for 2009/2010 season.

As shown in the table above the labour demanded at primary level by 2010 would only reach at 1.9 % respect of public employees and 0.4 % from the private employment of the same year.



Production 2001-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Main products in Corrientes Province, Years 2003-2009.										
Product	MU	2003	2004	2005	2006	2007	2008	2009	Share of national total (%) <sup>1</sup>	Source
Cattle stock	cab.	s/d	s/d	s/d	s/d	s/d	5,090,984	5,018,961	9.2	INTA-SENASA
Cattle task	cab.	82,170	70,811	84,283	88,886	101,096	108,624	102,210	0.6	ONCCA
Ovine stock	cab.	878,000	898,000	878,000	859,000	840,000	982,000	700,000	5.3	MAGyP-FLA
Dirty wool	ton	4,000	4,000	4,300	3,800	3,850	3,930	3,080	5.7	FLA
Tobacco	ton	2,834	5,829	5,369	6,232	2,305	3,531	2,491	1.8	MAGyP
Rice	ton	300,860	488,963	429,543	551,287	452,370	534,120	508,190	38.1	MAGyP
Orange	ton	182,000	142,000	142,000	130,000	130,000	130,000	130,000	14.2	Federicitrus
Tangerine	ton	85,500	60,000	60,000	50,000	50,000	50,000	50,000	12.5	Federicitrus
Lemon	ton	32,200	32,000	32,000	35,000	35,000	35,000	35,000	2.5	Federicitrus
Tea cultivation	ton	14,750	13,530	10,910	13,152	22,972	16,829	13,775	4.0	MAGyP
Dried yerba mate	ton	s/d	163,587	233,611	291,653	268,481	242,452	166,223	20.4	MAGyP
Tomatoo	ton	48,958	48,958	48,958	62,196	s/d	s/d	s/d	9.1	Dir. Nac. Ctas.
Cultivated forest round logs	ton	498,991	711,711	536,156	625,772	719,272	862,716	s/d	12.0	MAGyP
Compensated boards	m <sup>3</sup>	29,946	33,900	35,983	42,698	38,317	37,644	s/d	46.0	SAYDS

<sup>1</sup> Share according to the latest year for which data is presented.

Source: MECON.

**Tobacco production. Corrientes province.**

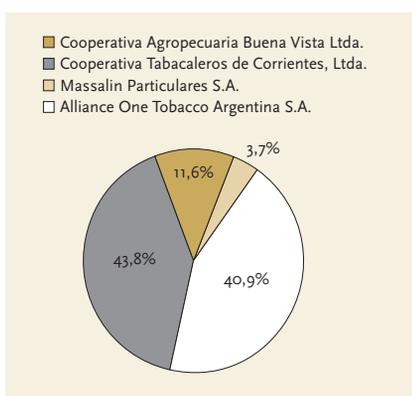
Campaign	Area (ha)		Production (kg)	Value in thousands of \$ (Market price + SFT)
	Planted	Harvested		
2001/02	4,235	3,437	4,640,669	9,941
2002/03	4,940	2,727	2,835,107	8,194
2003/04	4,250	3,820	5,828,197	14,511
2004/05	4,846	4,477	5,369,448	14,653
2005/06	6,173	5,212	6,252,334	18,080
2006/07	5,893	5,279	2,304,676	6,296
2007/08	3,604	2,944	3,530,879	14,616
2008/09	3,341	3,341	2,490,640	12,570
2009/10	2,552	2,331	1,167,698	6,500

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Estimation of labour employed in tobacco sector and its weight in Corrientes' employment. Year 2010**

	Hectares by tobacco type	Wages per hectare	Total wages	Employment	Private sector (%)	Public sector (%)
Virginia	63	120	7,560	50	0.0	0.1
Burley	31	90	2,790	31	0	0
Criollo	2,458	70	172,060	1,187	0.4	1.8
Total	2,552	-	182,410	1,268	0.4	1.9

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



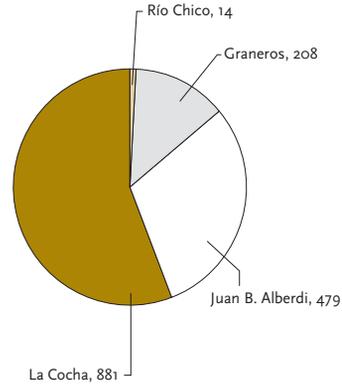
Proportion of tobacco. Kg collected by company. 2009-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Regarding, leaf-buying companies, the Cooperativa de Tabacaleros y Productores Agropecuarios de Corrientes has the highest percentage (43.8%), followed by Alliance One Tobacco (40.9%), Cooperativa Agropecuaria Buena Vista (11.6%), and Massalin Particulares S.A. with the lowest participation (3.7%).

Unlike other tobacco-producing provinces, the majority of tobacco production is for domestic consumption, with virtually no exports in this sector in total provincial exports.

## TUCUMÁN PROVINCE



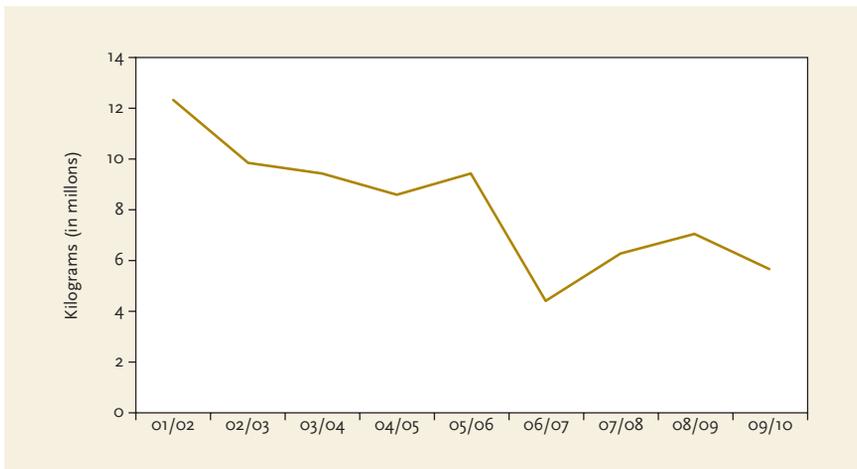
Province map and numbers of farmers by department. Campaign 1989-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Tucumán has 1.582 tobacco producers, of which the highest percentage is in the Department of La Cocha (56%), followed by Juan Bautista Alberdi (30%), Graneros (13%), while the remaining 1% is in the department of Río Chico.

In Tucumán province the number of

farmers continues a downward trend from 2001/2002 to 2006/2007 season, when since that time there was a slight tendency to recovery. The points fall between 2001-2007 was 73% and recovery to 2010 would be 29%.

Regarding the output recorded in the province it shows alternating ups and



Production 2001-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Main products in Tucumán Province, Years 2003-2009.**

Product	MU	2003	2004	2005	2006	2007	2008	2009	Share of national total (%) <sup>1</sup>	Source
Soy	ton	570,000	489,100	578,238	835,903	876,008	803,925	763,046	2.5	MAGYP
Tobacco	ton	9,851	9,436	8,584	9,441	4,367	6,253	7,048	5.2	MAGYP
Bean	ton	9,375	7,483	9,597	21,083	18,115	15,409	22,472	7.2	MAGYP
Lemon	ton	1,103,900	1,202,331	1,292,080	1,316,300	1,328,300	1,181,400	1,207,000	84.7	Federicitrus
Tangerine	ton	9,000	9,700	9,000	8,000	9,000	7,000	8,500	2.1	Federicitrus
Orange	ton	50,000	54,100	50,000	55,000	50,000	38,000	35,000	3.9	Federicitrus
Grapefruit	ton	10,000	10,800	10,000	9,000	8,000	3,500	6,000	2.5	Federicitrus
White and raw sugar	ton	1,094,736	1,030,352	1,267,288	1,525,190	1,279,132	1,409,589	1,354,170	63.8	CAA
Paper pulp	ton	51,710	57,136	54,857	55,571	55,991	63,515	s/d	6.4	MAGYP
Paper	ton	91,268	101,736	103,151	107,203	97,794	85,299	s/d	5.0	MAGYP

Share according the latest year for which data is presented.  
Source: MECON.

REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)

Tobacco production. Tucumán province.

Campaign	Area (ha)		Production (kg)	Value in thousands of \$ (Market price + SFT)
	Planted	Harvested		
2001/02	6,270	6,110	12,325,719	2,017
2002/03	6,570	4,583	9,850,683	2,149
2003/04	6,500	4,650	9,435,897	2,029
2004/05	7,000	4,150	8,583,694	2,068
2005/06	5,100	4,580	9,441,056	2,061
2006/07	4,100	2,070	4,366,903	2,110
2007/08	3,231	3,126	6,252,679	2,000
2008/09	3,765	3,710	7,048,360	1,900
2009/10	4,239	4,021	5,631,765	1,401

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Estimation of labour employed in tobacco sector and its weight in Tucumán's employment. Year 2010

	Hectares by tobacco type	Wages per hectare	Total wages	Employment	Private sector (%)	Public sector (%)
Virginia	72	120	8,640	48	0.0	0.1
Burley	4,167	90	375,030	2,500	0.5	3.8
Criollo	0	70	0	0	0	0
Total	4,239	-	383,670	2,548	0.5	3.9

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

downs, being the last campaign, the second lowest in 10 years.

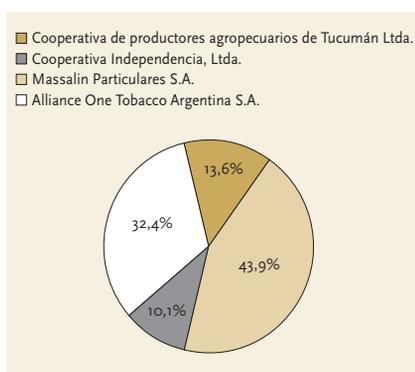
Tucumán grows two varieties of tobacco. Virginia tobacco would require

8,640 wages in the last campaign, while Burley tobacco would only require 375,030 wages since it is the major variety in the province.

As shown in the table above the labour demanded at primary level by 2010 would only amount to 3.9% compared to public employees and 0.5% from the private employment of the same year.

Regarding leaf-buying companies, Massalin Particulares S.A. has the highest percentage (43.9%), followed by Alliance One Tobacco (32.4%), the Cooperativa de Productores Agropecuarios del Tucumán Ltda. (13.6%), having the lowest participation the Cooperativa Independencia Ltda. (10.1%).

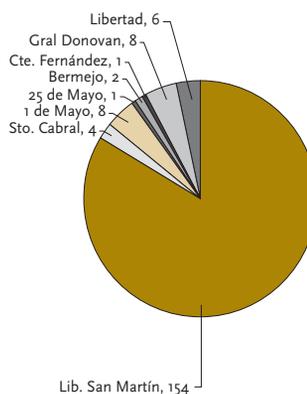
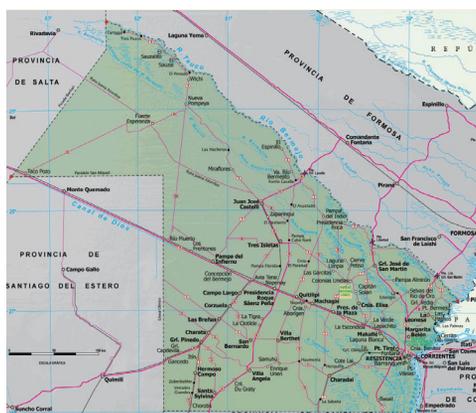
It should be noted that Tucumán contributes nearly 5.2% of total production in the country.



Proportion of tobacco. Kg collected by company. 2009-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

## CHACO PROVINCE



Province map and numbers of farmers by department. Campaign 1989-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### Tobacco production. Chaco province.

Campaign	Area (ha)		Production (kg)	Value in thousands of \$ (Market price + SFT)
	Planted	Harvested		
2001/02	1,309	885	1,404,692	2,888
2002/03	1,489	1,117	1,505,584	4,788
2003/04	1,828	1,532	1,921,552	5,436
2004/05	1,642	1,277	1,025,038	3,456
2005/06	1,060	681	683,779	3,012
2006/07	733	533	565,763	3,328
2007/08	578	440	591,965	4,063
2008/09	653	499	465,326	4,193
2009/10	575	575	543,214	5,386

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

### Estimation of labour employed in tobacco sector and its weight in Chaco's employment. Year 2010

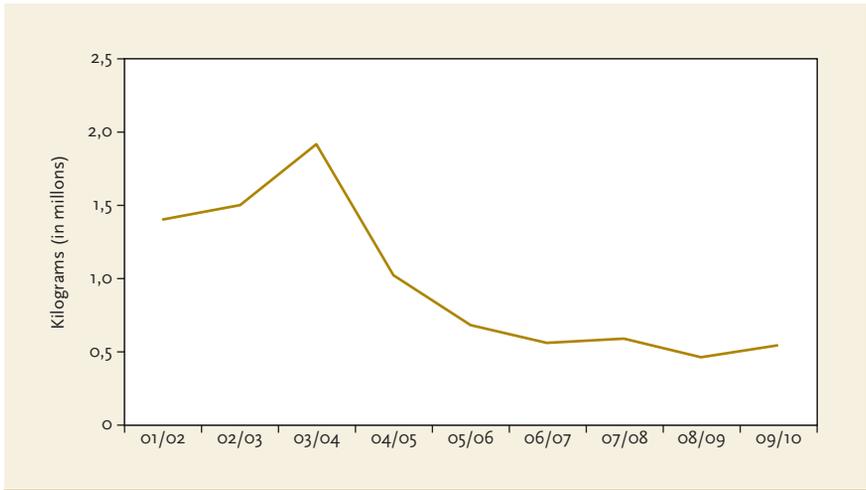
	Hectares by tobacco type	Wages per hectare	Total wages	Employment	Private sector (%)	Public sector (%)
Virginia	320	120	38,400	213	0.1	0.3
Burley	0	90	0	0	0	0
Criollo	255	70	17,850	119	0	0
Total	575	-	56,250	332	0.1	0.5

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)



Evolution of tobacco-farmers 2001-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

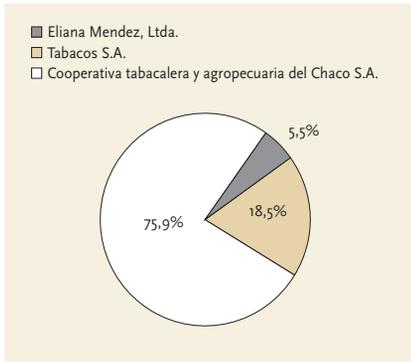


Production 2001-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Chaco province has 184 tobacco producers, of which the highest percentage is in the Department of Libertador José de San Martín (84%), followed by General Donovan, along with 1° de Mayo (both 4%), Libertad (3%), Sargento

Cabral (2%), while the remaining 3% is divided equally in the departments of 25 de Mayo, Bermejo and Comandante Fernández.

Chaco Province shows that the number of farmers continues a downward



Proportion of tobacco. Kg collected by company. 2009-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

trend from the 2001/2002 season. The points fall between would be 84 %.

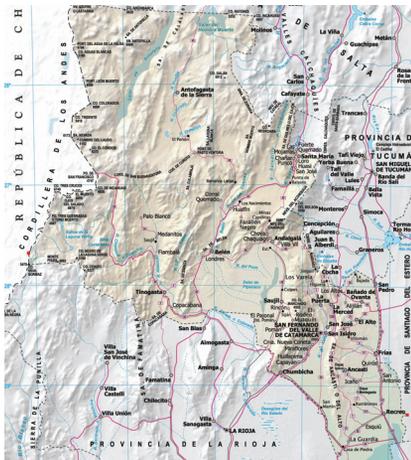
Regarding the output recorded in the province it presents a steady decline from the year 2004/2005 being this last one among the worst seasons.

Chaco grows two tobacco varieties. In case of Virginia tobacco the last campaign would require 38,400 wages, while in Burley only 17,850 wages.

As shown in the table above, the labour demanded at primary level by 2010 would only reach 0.5 % compared to public employees and 0.1 % from the private employment for the same year.

Regarding leaf-buying companies, the Cooperativa Tabacalera y Agropecuaria del Chaco Ltda. has the highest percentage (75.9%), followed by Tabacos (18.5%) having the lowest participation Eliana Mendez (5, 5 %).

### CATAMARCA PROVINCE



Province map and numbers of farmers by department. Campaign 1989-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

Catamarca province has 147 tobacco producers, of which the highest percentage is in the Department of Santa Rosa (97%), followed by Fray Mamerto Esquiú and Capayan both with 1.5 %.

In Catamarca Province the number of farmers continues a downward trend from the 2001/2002 season. The points fall between would be 43 %.

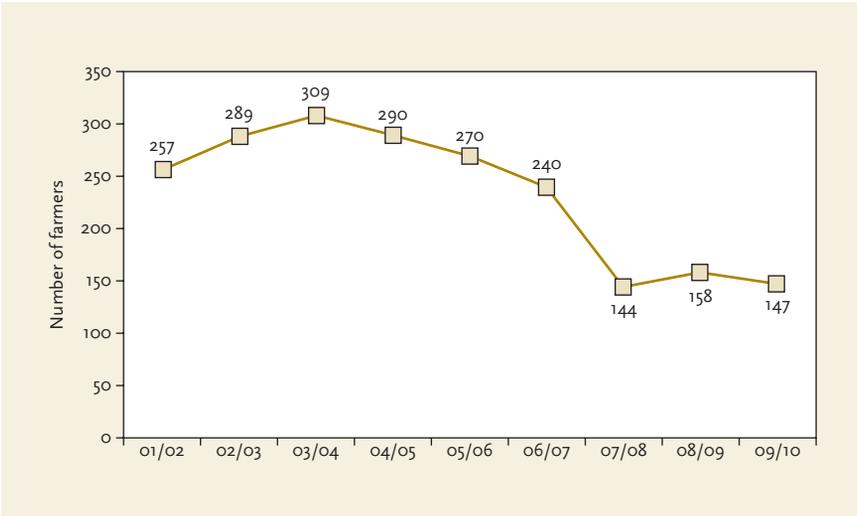
Regarding the output recorded the

province presents fluctuations showing in the last season the lowest level of production.

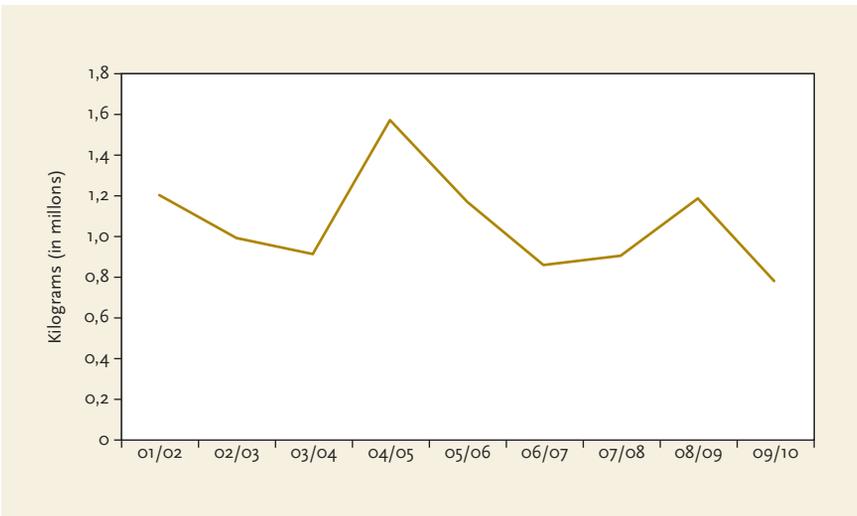
Catamarca grows two varieties of tobacco. Virginia tobacco would require

1,200 wages in the last campaign, while Burley tobacco would require 58,590 wages.

As shown in the table above the labour demanded at primary level by 2010



Evolution of tobacco-farmers 2001-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



Production 2001-2010.  
Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Tobacco production. Catamarca province.**

Campaign	Area (ha)		Production (kg)	Value in thousands of \$ (Market price + SFT)
	Planted	Harvested		
2001/02	908	859	1,201,508	1,399
2002/03	866	624	991,773	1,591
2003/04	1,044	589	914,041	1,553
2004/05	851	820	1,571,756	1,917
2005/06	838	750	1,171,283	1,562
2006/07	623	560	858,910	1,535
2007/08	543	505	904,632	1,793
2008/09	693	560	1,186,572	2,119
2009/10	661	487	778,249	1,619

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Estimation of labour employed in tobacco sector and its weight in Catamarca's employment. Year 2010**

	Hectares by tobacco type	Wages per hectare	Total wages	Employment	Private sector (%)	Public sector (%)
Virginia	10	120	1,200	120	0.0	0.0
Burley	651	90	58,590	488	0.5	1.3
Criollo	0	70	0	0	0	0
<b>Total</b>	<b>661</b>	<b>-</b>	<b>59,790</b>	<b>498</b>	<b>0.5</b>	<b>1.3</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



Proportion of tobacco. Kg collected by company.  
2009-2010.

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

would only reach 1.3 % of public employees and 0.5 % from the private employment of the same year.

Regarding leaf-buying companies, the province has only one Cooperativa de Trabajo de Cigarros de Catamarca (CICAT), so that 100 % is collected by itself.





## METHODOLOGICAL APENDIX





## METHODOLOGICAL APENDIX

This section explains the methodologies used to estimate the different variables in this study.

**Gross Geographic Product (GGP)** is a synthetic indicator of the productive effort made in a particular region of a country. According to MECON the GGP is equal to the sum of gross value added of all resident institutional units engaged in production, meaning as resident to an institutional unit that is in the economic territory of a jurisdiction and maintains a center of economic interest in that territory, that is, performs or intends to engage in economic activities or transactions on a significant scale, either indefinitely or for a prolonged period of time, usually interpreted as a year. The GGP used in this study, is calculated at basic prices based on information provided by the MECON, INDEC and agencies that provide information on prices and quantities of various sectors of the economy. The base year for calculating is 2004.

### LABOUR PRIMARY TOBACCO SECTOR

Due the lack of updated information regarding the labour required in the primary production of tobacco in the different provinces, an estimate of it was made for the last season (2009/2010).

First we define the domain of the variables involved in the calculations, such as acreage, type of tobacco, wages required and number of days of the campaign:

- **Area sown, wages and number of days:** taken as a data the value provided by the Ministry of Agriculture, Livestock and Fisheries (MINAGRI) for the 2009/2010 season.
- **Type of tobacco,** three varieties of tobacco were considered, Virginia, Burley and Criollo.

To estimate the labour for each of the different tobacco provinces, the number of hectares planted for each type of tobacco has been multiplied by the number of wages required per hectare. This will get the amount of wages required in each province. This value is then divided by the average number of days of the campaign duration, considering that we do not have the same requirements of wages in the three stages (seedbed, transplanting and harvesting). In this way we obtain as a result the labour required per province for the 2009/2010 season.

As an example, an estimate done for the province of Misiones will be presented.

Misiones had 28,581 hectares cultivated last season, of which 27,515 hectares were used for the variety Burley while 1,066 hectares. Remaining were for Criollo variety. Knowing that the wages required per hectare are 90 for Burley tobacco and 70 for the Criollo tobacco, we find that 2,476,350 wages would be needed for the first and 74,620 wages for the second. Dividing these numbers by the estimated number of days of the campaign we will get 20,636 jobs generated by the primary activity for the Burley tobacco and 498 for the Criollo.

Similarly we proceeded to estimate the jobs created for the rest of the provinces.

To calculate the number of people dependent on the tobacco growing, we multiplied the value of jobs by 3.5 members on average as the value of family type according to Census 2010.

The rural population, as yet this data is not available, is estimated taking as base the total population according to Census 2010 and then multiplying it by an estimate of the proportion of rural population done by ECLAC for that period.

The private and public employment information was obtained from the Ministry of Economy and Public Finance (MECON).

Total employment is calculated by multiplying the employment rate published by the National Institute of Statistics and Censuses for the different clusters by the population in each province according to the 2010 Census.

At the opening by departments, it is used the number of farmers provided by the MINAGRI and the total number of households in each of them according to the 2010 Census.

To calculate the number of people who depend on the tobacco industry as a whole, to the primary sector workers are added the workers in gathering and processing plant (data obtained from the Federal Public Revenue Administration), and the employees of distribution wholesale / retail and stalls (data obtained from a previous study for the MINAGRI, 2005).

### **Monetary value of production (market price+ SFT)**

To estimate the value in pesos of production by province is calculated based on information provided by the MINAGRI, the market price plus SFT by type of tobacco weighted by the production of each variety at provincial level.

### **Calculation of the fiscal contribution of the tobacco industry within each province**

The fiscal contribution of the industry was calculated based on:

- national collection reported by AFIP and that corresponds with the in force national legislation on taxation to the industry,
- it was calculated the provincial distribution of federal taxes based on the federal system of tax sharing Law 23.548 and to amendments;
- to calculate the contribution of industry in the provincial revenue we took as average the tax rate on gross receipts 0.9% of turnover for the annual sale of cigarettes, weighted by the shares of each province in terms of total annual production of the jurisdiction in each campaign.



## STATISTICAL APPENDIX





## STATISTICAL APPENDIX

**Table 1.** Evolution of the planted and harvested area, production and yield (National).  
Campaigns 1989-2010

Campaign	Area		Production (ton)	Yield (kg/ha)
	Planted (ha)	Harvested (ha)		
1989/90	51,035	43,931	67,634	1,430
1990/91	63,312	57,733	94,504	1,637
1991/92	80,330	70,836	109,157	1,541
1992/93	78,126	68,549	112,305	1,638
1993/94	55,453	49,378	81,957	1,650
1994/95	58,422	49,833	79,011	1,616
1995/96	63,198	55,970	98,201	1,756
1996/97	74,661	69,677	123,206	1,768
1997/98	84,454	77,001	116,510	1,513
1998/99	79,015	68,201	113,443	1,663
1999/00	64,641	59,612	114,509	1,921
2000/01	59,647	56,829	98,110	1,726
2001/02	68,308	65,988	132,437	2,007
2002/03	75,207	65,702	115,837	1,763
2003/04	83,185	77,587	157,294	2,027
2004/05	91,559	83,169	161,064	1,937
2005/06	84,587	78,255	144,345	1,845
2006/07	81,801	73,267	127,740	1,743
2007/08	76,435	67,498	130,381	1,932
2008/09	79,455	74,547	135,531	1,818
2009/10	78,304	67,674	132,870	1,963

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

REGIONAL IMPACT OF THE FRAMEWORK AGREEMENT FOR THE CONTROL OF TOBACCO (FCTC)

**Table 2. National Participation by type of tobacco. Campaign 2009/2010**

Tobacco type	Production (kg)	Percentage
Burley	35,004,318	26%
Criollo	2,951,922	2%
Virginia	94,913,748	71%
<b>Total</b>	<b>132,869,988</b>	<b>100%</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 3. Provincial Share of tobacco production. Campaign 2009/2010**

Province	Production (kg)	Percentage
Catamarca	788,249	1
Corrientes	1,167,698	1
Chaco	543,214	0
Jujuy	49,461,487	38
Misiones	27,412,975	21
Salta	45,864,600	35
Tucumán	5,631,765	4
<b>Total</b>	<b>130,869,988</b>	

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 4. Changes in the number of producers per province. Campaigns 2009/2010**

Province	Campaign								
	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10
Catamarca	257	289	309	290	270	240	144	158	147
Chaco	1,137	780	919	566	458	308	273	185	184
Corrientes	3,540	3,091	3,857	4,088	3,379	3,448	2,463	2,237	1,414
Jujuy	699	715	779	829	817	836	816	852	915
Misiones	15,474	18,092	16,649	16,597	14,785	12,719	12,006	12,016	11,310
Salta	869	1,056	1,217	1,288	1,377	1,415	1,524	1,505	1,691
Tucumán	4,621	2,071	2,218	2,391	1,999	1,231	1,438	1,468	1,582
<b>Total</b>	<b>26,597</b>	<b>26,094</b>	<b>25,948</b>	<b>26,049</b>	<b>23,085</b>	<b>20,197</b>	<b>18,664</b>	<b>18,421</b>	<b>17,243</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 5. Production by type of tobacco per province. Campaigns 2009/2010**

Province	Tobacco type	Production (kg)	Average price (Market price + SFT)	Value in thousands of \$ARS (Market price + SFT)
Catamarca	Burley	782,582	8.75	7,176
	Virginia	5,667	9.17	50
Corrientes	Burley	9,619	6.64	64
	Criollo	1,130,945	7.11	6,243
	Virginia	27,134	5.52	193
Chaco	Criollo	207,748	7.5	3,828
	Virginia	335,466	11.41	1,558
Jujuy	Virginia	49,461,487	11.88	587,602
Misiones	Burley	26,681,790	10.46	300,012
	Criollo from Misiones	731,185	5.83	4,263
Salta	Criollo Salta	882,044	12.48	561,382
	Virginia	44,982,556	10.02	8,838
Tucuman	Burley	5,530,327	9.01	49,828
	Virginia	101,438	11.32	1,148
<b>Total</b>		<b>132,869,988</b>		<b>1,532,185</b>

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 6. Evolution in domestic cigarette consumption. Period 1910-2010***(Continues)*

Year	Total packs consumed (in millions)	Population (in millions)	Apparent consumption
1910	218	7	31
1911	237	7	33
1912	265	7	35
1913	282	8	37
1914	269	8	34
1915	261	8	32
1916	215	8	26
1917	223	9	26
1918	251	9	28
1919	270	9	29
1920	294	9	31
1921	317	10	33
1922	328	10	33
1923	332	10	32
1924	347	10	33
1925	366	11	34
1926	381	11	35
1927	380	11	34
1928	401	12	35
1929	418	12	36

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 6. Evolution in domestic cigarette consumption. Period 1910-2010** *(Continues)*

Year	Total packs consumed (in millions)	Population (in millions)	Apparent consumption
1930	411	12	34
1931	414	12	34
1932	418	12	34
1933	421	13	34
1934	425	12	35
1935	482	13	38
1936	423	13	33
1937	445	13	33
1938	468	14	34
1939	498	14	36
1940	521	14	37
1941	519	15	36
1942	550	15	37
1943	551	15	37
1944	596	15	39
1945	645	16	41
1946	696	16	44
1947	762	16	48
1948	819	16	51
1949	890	17	54
1950	876	17	52
1951	890	17	52
1952	968	17	55
1953	992	18	56
1954	975	18	54
1955	1,047	18	57
1956	1,068	19	57
1957	1,097	19	58
1958	1,118	19	58
1959	1,167	20	59
1960	1,107	20	55
1961	1,158	20	57
1962	1,229	21	59
1963	1,199	21	57
1964	1,257	21	59
1965	1,256	22	58
1966	1,209	22	55
1967	1,244	22	56
1968	1,308	23	58
1969	1,385	23	60

Source: E & R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 6. Evolution in domestic cigarette consumption. Period 1910-2010**

Year	Total packs consumed (in millions)	Population (in millions)	Apparent consumption
1970	1,481	23	63
1971	1,497	24	63
1972	1,584	24	65
1973	1,666	25	67
1974	1,885	25	75
1975	1,901	26	74
1976	1,848	26	70
1977	1,845	27	69
1978	1,844	27	67
1979	1,917	28	69
1980	1,918	28	69
1981	2,203	28	78
1982	1,624	29	56
1983	1,729	29	59
1984	1,948	30	66
1985	1,955	30	65
1986	2,005	30	66
1987	1,697	31	55
1988	1,686	31	54
1989	1,675	32	53
1990	1,739	33	53
1991	1,849	33	56
1992	1,939	33	58
1993	1,976	34	59
1994	1,964	34	58
1995	1,970	34	57
1996	1,940	35	56
1997	1,885	35	54
1998	1,967	35	56
1999	1,996	36	56
2000	1,843	36	51
2001	1,740	36	48
2002	1,812	37	49
2003	1,990	37	54
2004	1,890	37	51
2005	1,862	38	49
2006	1,990	38	52
2007	2,057	38	53
2008	2,173	39	56
2009	2,132	39	55
2010	2,098	40	52

Source: E &amp; R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 7.** Evolution of the planted-harvested area, production and yield (Misiones).  
Campaigns 1989-2010

Campaign	Area		Production (ton)	Yield (kg/ha)
	Planted (ha)	Harvested (ha)		
1989/90	8,374	7,621	12,143,673	1,593
1990/91	15,016	13,665	19,493,969	1,427
1991/92	22,399	20,372	34,554,838	1,696
1992/93	21,365	20,146	35,097,387	1,742
1993/94	18,046	18,046	27,929,369	1,548
1994/95	18,117	12,986	20,465,974	1,576
1995/96	18,888	16,446	26,719,890	1,625
1996/97	21,304	20,244	32,796,892	1,620
1997/98	25,762	24,240	21,769,450	898
1998/99	25,800	24,098	32,441,368	1,346
1999/00	21,129	20,404	33,184,418	1,626
2000/01	20,756	20,341	27,093,216	1,332
2001/02	25,519	24,630	39,424,292	1,601
2002/03	29,160	26,922	29,582,344	1,099
2003/04	30,178	29,337	47,992,954	1,636
2004/05	35,232	32,770	52,388,944	1,599
2005/06	30,606	29,462	44,805,608	1,521
2006/07	28,136	26,444	33,999,948	1,286
2007/08	27,295	22,410	36,010,679	1,607
2008/09	30,646	26,353	41,045,594	1,558
2009/10	28,581	19,192	29,412,975	1,533

Source: E &amp; R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 8.** Evolution of the planted-harvested area, production and yield (Salta).  
Campaigns 1989-2010

Campaign	Area		Production (ton)	Yield (kg/ha)
	Planted (ha)	Harvested (ha)		
1989/90	12,549	11,419	19,441,920	1,703
1990/91	15,144	13,782	25,250,405	1,832
1991/92	18,751	16,883	23,031,567	1,364
1992/93	20,596	20,596	28,884,615	1,402
1993/94	12,085	9,796	17,202,419	1,756
1994/95	11,938	11,853	20,336,085	1,716
1995/96	13,910	13,650	27,177,561	1,991
1996/97	18,249	17,226	34,160,807	1,983
1997/98	21,760	20,706	37,807,053	1,826
1998/99	18,350	13,666	24,685,583	1,806
1999/00	14,881	13,086	31,032,902	2,371
2000/01	12,883	12,883	24,433,146	1,897
2001/02	15,081	15,081	37,593,322	2,493
2002/03	16,807	15,353	35,381,457	2,305
2003/04	20,367	19,241	46,033,897	2,392
2004/05	22,887	21,275	48,898,635	2,298
2005/06	22,187	19,973	42,711,277	2,138
2006/07	23,547	21,058	42,329,468	2,010
2007/08	21,776	19,245	39,030,949	2,028
2008/09	21,239	21,239	38,856,327	1,830
2009/10	22,061	21,434	45,864,600	2,140

Source: E &amp; R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 9.** Evolution of the planted-harvested area, production and yield (Jujuy).  
Campaigns 1989-2010

Campaign	Area		Production (ton)	Yield (kg/ha)
	Planted (ha)	Harvested (ha)		
1989/90	13,906	13,135	23,380,381	1,780
1990/91	16,323	16,125	32,634,430	2,024
1991/92	19,888	17,310	30,269,169	1,749
1992/93	19,779	16,279	33,297,761	2,045
1993/94	13,070	12,598	22,777,372	1,808
1994/95	14,431	12,223	21,976,464	1,798
1995/96	16,175	13,872	30,177,159	2,175
1996/97	20,501	19,401	39,028,497	2,012
1997/98	21,916	19,900	42,731,828	2,147
1998/99	20,500	18,000	34,326,453	1,907
1999/00	16,026	15,801	34,838,393	2,205
2000/01	14,659	12,711	30,175,578	2,374
2001/02	14,986	14,986	35,846,505	2,392
2002/03	15,375	14,377	35,690,269	2,482
2003/04	19,018	18,418	45,167,273	2,452
2004/05	19,100	18,400	43,226,194	2,349
2005/06	18,624	17,597	39,279,218	2,232
2006/07	19,045	17,580	43,313,839	2,464
2007/08	19,408	18,829	44,059,350	2,340
2008/09	18,846	18,846	44,438,596	2,358
2009/10	19,625	19,625	49,461,487	2,519

Source: E &amp; R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 10.** Evolution of the planted-harvested area, production and yield (Corrientes).  
Campaigns 1989-2010

Campaign	Area		Production (ton)	Yield (kg/ha)
	Planted (ha)	Harvested (ha)		
1989/90	7,550	5,142	4,300,346	836
1990/91	6,250	5,100	3,856,311	756
1991/92	8,020	5,750	6,387,143	1,111
1992/93	5,009	5,009	4,034,080	805
1993/94	5,260	3,360	4,233,800	1,260
1994/95	6,814	6,414	7,427,966	1,158
1995/96	6,535	5,432	6,019,263	1,108
1996/97	5,937	5,062	5,971,289	1,180
1997/98	6,200	4,600	2,825,279	614
1998/99	5,865	4,717	7,499,495	1,590
1999/00	5,040	3,300	3,902,408	1,183
2000/01	3,720	3,679	4,337,387	1,179
2001/02	4,235	3,437	4,640,669	1,350
2002/03	4,940	2,727	2,835,107	1,040
2003/04	4,250	3,820	5,828,197	1,526
2004/05	4,846	4,477	5,369,448	1,199
2005/06	6,173	5,212	6,252,334	1,200
2006/07	5,893	5,279	2,304,676	437
2007/08	3,604	2,944	3,530,879	1,199
2008/09	3,341	3,341	2,490,640	746
2009/10	2,552	2,331	1,167,698	501

Source: E &amp; R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 11.** Evolution of the planted-harvested area, production and yield (Tucumán). Campaigns 1989-2010

Campaign	Area		Production (ton)	Yield (kg/ha)
	Planted (ha)	Harvested (ha)		
1989/90	6,880	5,000	6,770,185	1,354
1990/91	8,856	7,528	11,108,518	1,476
1991/92	8,920	8,410	12,291,184	1,461
1992/93	9,000	4,800	8,599,439	1,792
1993/94	6,070	5,030	8,490,812	1,688
1994/95	5,970	5,340	7,541,960	1,412
1995/96	6,070	5,145	6,554,717	1,274
1996/97	7,150	6,500	9,455,976	1,455
1997/98	6,500	5,702	9,078,504	1,592
1998/99	6,300	5,940	11,965,424	2,014
1999/00	5,990	5,886	9,741,423	1,655
2000/01	6,000	5,900	10,089,462	1,710
2001/02	6,270	6,110	12,325,719	2,017
2002/03	6,570	4,583	9,850,683	2,149
2003/04	6,500	4,650	9,435,897	2,029
2004/05	7,000	4,150	8,583,694	2,068
2005/06	5,100	4,580	9,441,056	2,061
2006/07	4,100	2,070	4,366,903	2,110
2007/08	3,231	3,126	6,252,679	2,000
2008/09	3,765	3,710	7,048,360	1,900
2009/10	4,239	4,021	5,631,765	1,401

Source: E &amp; R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 12.** Evolution of the planted-harvested area, production and yield (Chaco).  
Campaigns 1989-2010

Campaign	Area		Production (ton)	Yield (kg/ha)
	Planted (ha)	Harvested (ha)		
1989/90	315	287	545,511	1,901
1990/91	216	165	314,671	1,907
1991/92	468	400	732,792	1,832
1992/93	573	355	641,336	1,807
1993/94	200	145	265,215	1,829
1994/95	191	156	386,923	2,480
1995/96	557	446	510,987	1,146
1996/97	630	510	879,271	1,724
1997/98	1,007	1,007	1,010,309	1,003
1998/99	1,300	690	1,524,124	1,588
1999/00	990	565	969,070	1,715
2000/01	945	666	1,007,344	1,513
2001/02	1,309	885	1,404,692	1,587
2002/03	1,489	1,117	1,505,584	1,348
2003/04	1,828	1,532	1,921,552	1,254
2004/05	1,642	1,277	1,025,038	803
2005/06	1,060	681	683,779	1,004
2006/07	733	533	565,763	1,061
2007/08	578	440	591,965	1,345
2008/09	653	499	465,326	933
2009/10	575	575	543,214	945

Source: E &amp; R, based on data from the Ministry of Agriculture, Livestock and Fisheries.

**Table 13.** Evolution of the planted-harvested area, production and yield (Catamarca).  
Campaigns 1989-2010

Campaign	Area		Production (ton)	Yield (kg/ha)
	Planted (ha)	Harvested (ha)		
1989/90	1,461	1,327	1,027,834	775
1990/91	1,507	1,368	1,845,077	1,349
1991/92	1,884	1,711	1,910,063	1,116
1992/93	1,804	1,364	1,750,603	1,283
1993/94	1,000	687	1,052,355	1,532
1994/95	961	861	876,099	1,018
1995/96	1,063	979	1,041,580	1,064
1996/97	890	735	913,073	1,242
1997/98	1,309	846	1,287,279	1,522
1998/99	900	820	1,000,327	1,220
1999/00	585	570	840,491	1,475
2000/01	685	650	974,039	1,499
2001/02	908	859	1,201,508	1,399
2002/03	866	624	991,773	1,591
2003/04	1,044	589	914,041	1,553
2004/05	851	820	1,571,756	1,917
2005/06	838	750	1,171,283	1,562
2006/07	623	560	858,910	1,535
2007/08	543	505	904,632	1,793
2008/09	693	560	1,186,572	2,119
2009/10	661	487	778,249	1,619

Source: E &amp; R, based on data from the Ministry of Agriculture, Livestock and Fisheries.



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