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# **Survey on the Performance of the Fruit and Vegetable Processing Industry 2009**

**June, 2010**

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Supported by:



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## Survey on the Performance of the Fruit and Vegetable Processing Industry 2009

### 1. INTRODUCTION

The activity titled “Survey on Performances of Fruit and Vegetable Processing Industry 2009” is a result of joint cooperation between USAID’s AgBiz Program and the Macedonian Association of Fruit and Vegetable Processors (MAP).

AgBiz program is funded by USAID and implemented by ARD, Inc. The goal of the four-year AgBiz program is to increase economic growth in Macedonia through expanded, environmentally sustainable production and sales of value-added agricultural products by enabling producers and processors to compete regionally and globally. This will produce greater incomes for agricultural processors and producers, and ultimately higher revenues for government.

The Macedonian Association of Processors – MAP was established in March 2002, with the overall objective to further develop the fruit and vegetable processing industry, to contribute to the overall economic growth and to increase the employment in the Republic of Macedonia. There are 28 processing companies – members of the association at the moment. Main activities of MAP encompass the following:

- Increasing the competitiveness of Macedonian processed fruit and vegetables;
- Strengthening the potential of MAP members to enter foreign markets;
- Informing members about market trends, technological and legal issues;
- Coordinating business delegations and joint presentations at trade fairs;
- Lobbying towards protecting the interests of the processing industry;
- Establishing business communications with foreign companies and institutions;
- Strengthening the cooperation with farmers and farmer associations; and
- Establishing cooperation with private and public institutions, the business community and international projects active in the Republic of Macedonia.

The above mentioned parties, understanding the need for having detailed information on the performance and impact of the processing industry in the country, agreed to collaborate and to initiate, design and execute the project that would particularly target those issues. Also, AgBiz and MAP agreed to devote resources, expertise and commitment in order activity to be successfully accomplished. The cooperation between AgBiz and MAP was formalized through signing of a Memorandum of Understanding.

## 2. OBJECTIVES AND SCOPE

Fruit and vegetable processing industry plays a very important role within the Macedonian agribusiness sector. The industry is very export oriented, continuously improves its performance in terms of increase in production and export value over the last decade and is very labor demanding.

The overall objective of the “Survey on Performances of Fruit and Vegetable Processing Industry 2009” project is to provide detailed and updated information on the performances of the industry. More specifically, this project was designed to:

- Research and analyze the production figures and export performances of the fruit and vegetables processing industry;
- Compile and analyze information related to the number of full-time employees and seasonal labor engaged by the industry;
- Address the issues related to the impact of the global economic crisis on the performances of the domestic processing industry; and
- Sublime the findings and develop conclusions into a comprehensive report.

The scope of work encompassed the following:

- Prepare an up-to-date data base of the fruit and vegetable processors in RM;
- Gather and analyze relevant export related statistical data ;
- Conduct the survey, collate and analyze data; and
- Prepare a report on findings and present the outcomes to the interested parties.

The final report, although similar to the previous ones, contains more details related to the purchasing of the raw materials by the industry, type of processed products produced in 2009 etc. Also, export statistics were reviewed and updated, which in return makes this document as a reference material for further analysis and studies.

## 3. WORKING METHODOLOGY

The project was carried out April-June 2010 and was consisted of the following phases:

- I. **Preparatory work** - Collecting existing information and developing a data base of fruit and vegetable processors
- II. **Desk Research** - Information collection (directories, databases, statistics)
- III. **Field Research** - Contacting, visiting and interviewing the companies
- IV. **Collating and analysis** - Data entering and data analyzing
- V. **Report writing, review and submission**

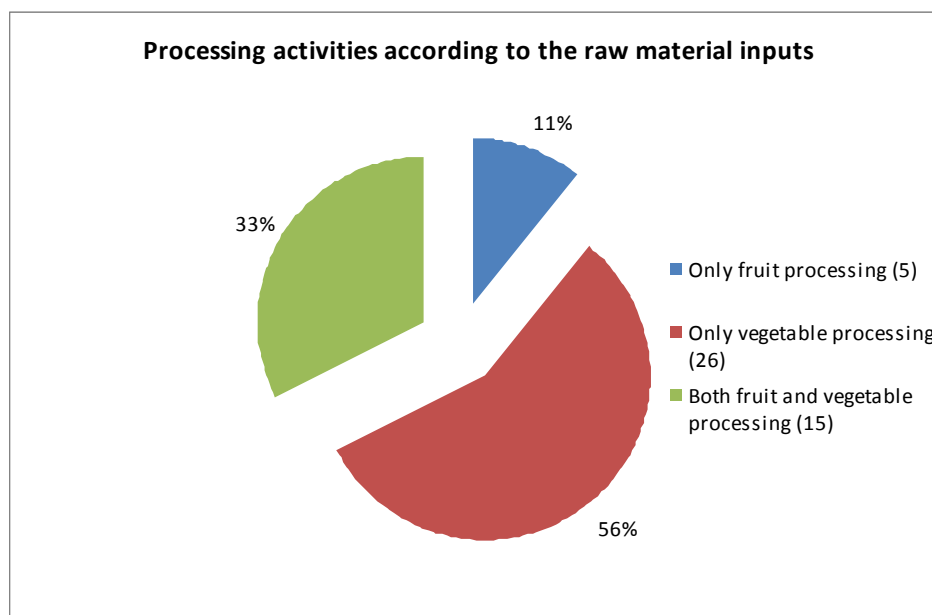
#### 4. RESULTS ON FINDINGS

The survey encompassed 58 fruit and vegetable (F&V) processing capacities in the country (compared to 55 in 2008), out of which only three companies (small scale processors) declined to participate and to provide the requested details. Another 9 companies could not complete the questionnaire due to the fact that they did not perform any processing activity in 2009 (due to various reasons, but mainly liquidity and bankruptcy). Hence, the results and the analysis elaborated in this document are based on the answers obtained from 46 active F&V processing companies (unless otherwise stated). Due to the very high response rate, all the details stated in the report are relevant and statistically correct.

##### 4.1 Classification of companies by type of production

Most of the processing companies process both fruits and vegetables. According to the survey, 26 companies process only vegetables (there were 19 in 2008), 5 are involved in fruit processing solely (there were 4 in 2008); while 15 companies (20 in 2008) process both groups of agricultural products, as presented on the following chart.

**Chart 1: Processing activities according to the raw material input**



Source: Own research 2010

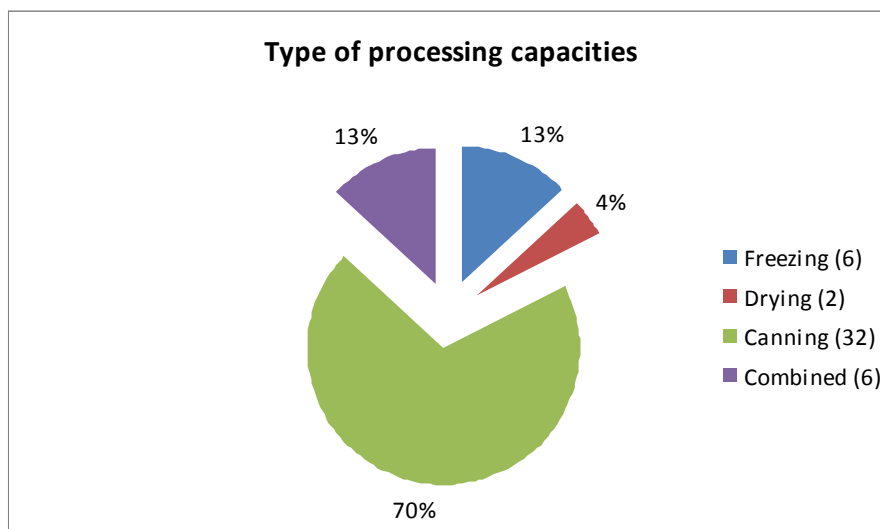
Although combined processing (fruits and vegetables) was the most present during 2006-2008, in 2009 vegetable processing is dominant activity accounting for 56% from the overall processing capacities. Fruit processing activity remains symbolic. In general, around 91% from the overall production is vegetable processing, while only 9% is fruit processing activity.

In relation to the type of processing, the largest portion of the processors are involved in canning<sup>1</sup> - 32 (or + 5 compared to 2008), small number of them are drying – 2 (the

<sup>1</sup> Canned products - Processed fruits and vegetables packed mainly in glass jars, but also in tins or in plastic

same as in 2008) and freezing capacities - 6 (7 in 2008), while the rest of them have combined production lines - 6 (7 in 2008), as presented on the following table.

**Chart 2: Number of companies according to the type of processing**



Source: Own research 2010

## 4.2 Processing industry performance

### 4.2.1 Raw materials supply

The F&V processing industry is highly dependant on domestic production and supply of agricultural products<sup>2</sup>. High import tariffs and complicated procedures for imports of fresh produce for processing purposes leaves the industry to rely almost exclusively on arrangements with private farmers, enterprises and cooperatives involved in primary production and intermediaries – traders that supply the industry<sup>3</sup>. Contract farming is insufficiently applied as an efficient mechanism that regulates the production and supply of raw materials to the industry. Also, the prices vary heavily, depending on the demand for fresh produce in the region and over or under production in the country. This acts as a serious impediment that prevents the industry to reach its full potential and to conclude larger export contracts. According to the industry, on average around 40-50 % of the raw materials needed by the industry are contracted and delivered by the producers/traders (the same as in 2008). The bulk of the raw materials are obtained on ad hoc basis typically just before or during high processing season. Lack of cooling and storing facilities within the industry is another major obstacle that prevents better organization, planning and execution of the production plans.

According to the survey, the industry purchased fewer raw materials in 2009 in comparison to 2008. In 2009, the industry purchased 67,1 thousand tons of raw materials in total or 10% less than in 2008, as presented in the following table.

<sup>2</sup> The value of processed products in the recent years has experienced a fluctuating trend, as a result of the seasonal character of agricultural production. This trend highlights the low technological level of the industry for processing agricultural products, particularly due to a lack of adequate storage facilities to overcome the seasonal effect and of sufficient raw materials needed for production continuity.

<sup>3</sup> Although MAP requested tariff free quota for import of red pepper for 2009 processing season, the government response was very slow and prevented the companies to import additional quantities of red pepper for processing under favorable conditions.

**Table 1: Raw materials buy out 2005-2009**

Year	Buy out of F&V (in '000 t.)	Increase in % (compared to the previous year)
2005	50,2	-
2006	66,3 <sup>4</sup>	+ 32,1
2007	57,5	-13,3
2008	74,8	+ 30
2009	67,1	-10,3

Source: Own research 2010

Red pepper, as previously, is the most important raw material for the processing industry. According to the survey, the quantities of red pepper purchased by the processing capacities in 2009 represented nearly 45% of the overall raw material volume, as presented below.

**Table 2: Types of fresh F&V purchased by the industry in 2007 - 2009**

Raw materials	Buy out of F&V in 2007 (in '000 t.)	% of total	Buy out of F&V in 2008 (in '000 t.)	% of total	Buy out of F&V in 2009 (in '000 t.)	% of total
Red pepper (kapija)	28,6	49,7	34,5	46,1	29,7	44,1
White pepper	1,2	2,1	1,0	1,3	1,0	1,5
Gamba	1,7	3,0	1,1	1,5	0,7	1,1
Chili peppers	2,1	3,7	1,7	2,3	2,0	3,0
Gherkins	3,6	6,2	3,8	5,1	2,7	4,1
Beetroot	1,8	3,1	2,6	3,5	2,7	4,1
Eggplant	2,6	4,5	3,2	4,3	3,2	4,8
Cabbage	2,3	4,0	5,9	7,9	2,9	4,3
Carrot	1,1	1,9	1,2	1,6	0,9	1,3
Industrial tomatoes	1,2	2,1	5,0	6,9	4,9	7,3
Onion	1,0	1,7	2,0	2,7	1,4	2,1
Sour cherry	3,6	6,3	4,8	6,4	3,2	4,8
Plum	0,3	0,5	0,8	1,1	0,9	1,3
Industrial apple	0,9	1,6	0,9	1,2	1,7	2,5
Others	5,5	9,6	6,3	8,4	9,2	13,7
<b>Total</b>	<b>57,5</b>	<b>100</b>	<b>74,8</b>	<b>100</b>	<b>67,1</b>	<b>100</b>

Source: Own research 2010

<sup>4</sup> The quantities of raw materials purchased in 2005 and 2006 were not reported in details as in 2007, 2008 and 2009. Therefore, it is assumed that considerable amounts that were traded as fresh (jointly with the quantities of raw materials acquired for processing purposes) were included in the answers provided by the respondents, which resulted with higher volumes of fresh raw materials purchased by the processors than actual ones.

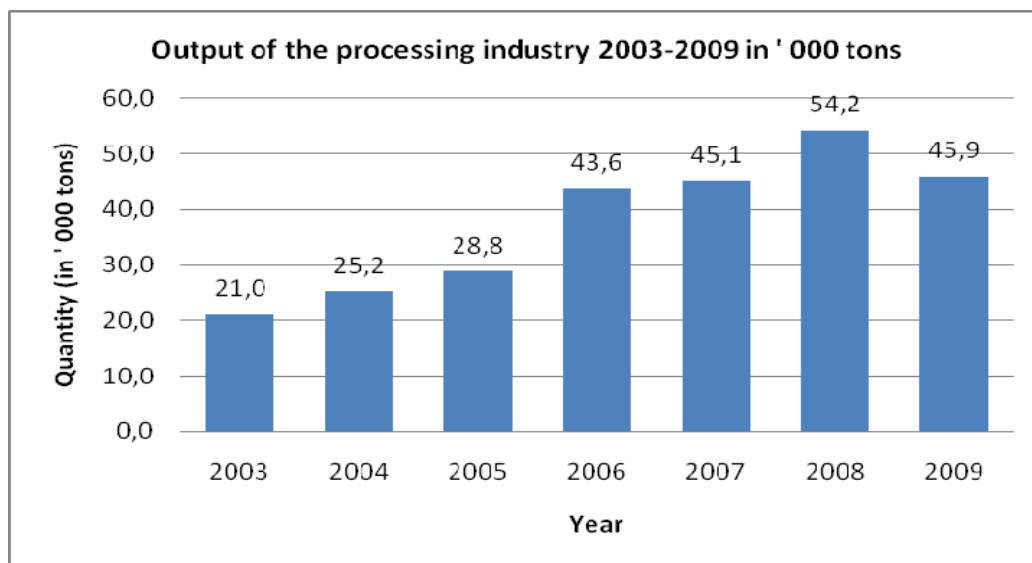
Overall, the industry purchased 60,9 thousand tons of vegetables (or 91%) and 6,2 thousand tons of fruits (or 9%) for processing purposes in 2009. Apart from sour cherries which are still demanded product by foreign buyers (although quantities purchased by the industry in 2009 were lesser compared to 2007 and 2008), the rest of fruit processing activity is rather symbolic.

According to the results, the processing capacities purchased 22,5 thousand tons of fresh produce directly from the individual farmers (or 33,5%), while 33 thousand tons were supplied by the traders/consolidators (or 49,2%). Agricultural cooperatives supplied the industry with only 1 thousand tons or 1,5%, while the remaining 10,6 thousand tons of fresh F&V (or 15,8%) were provided by agricultural enterprises.

#### 4.2.2 Production of processed F&V

The industry over the period 2003 – 2008 shows a continuous increase in production, mainly due to the increased demand for the Macedonian processed goods by the foreign buyers, and domestic market growth resulting from strong penetration of the retail chains and changes in the lifestyle of the population (buying processed products rather than preparing home made preserves). However, in 2009 the industry's output was significantly reduced in comparison to the previous year, mainly as a result of the global economic crisis. It severely impacted the domestic processors; extending receivables collection and reducing the working capital they had available to buy fresh produce for processing as well as other production inputs. Freezing and drying capacities experienced significantly reduced orders from foreign buyers and were particularly hit by the effects of the crisis. More details related to the production outputs are presented on the following chart.

**Chart 3: Production output 2003-2009 in '000 tons**



Source: Own research 2010

The output in 2007 outran the volume from 2006 by 1,5 thousand tons or + 3,4%, while the output of the industry in 2008 was record high – 54,2 thousand tons in total, which was 9,1 thousand tons more compared to the previous season or + 20%. According to the 2009 survey, the industry had an output of 45,9 thousand tons which is 8,3 thousand tons less compared to the previous year or – 15%. Summary of the production figures is presented below.

**Table 3: Production figures 2003-2009**

Year	Total production ('000 t.)	Increase in quantity (in 000 t. compared to the previous year)	Increase in % (compared to the previous year)	Index
2003	21,0	-	-	100
2004	25,2	+ 4,2	+ 20,0	120
2005	28,8	+ 3,6	+ 14,3	137
2006	43,6	+ 14,8	+ 51,4	208
2007	45,1	+ 1,5	+ 3,4	215
2008	54,2	+ 9,1	+ 20	258
2009	45,9	-8,3	-15,3	219

Source: Own research 2010

The main characteristics of the 2009 season were favorable weather conditions but already elaborated shortcomings did not allow the processing capacities to fully utilize the potential of the domestic raw material production and to optimize their production plans. Canning component had highest contribution in the overall production of processed products in 2009 (the same as in 2007 and 2008), as presented below.

**Table 4: Production of processed F&V by category 2007-2009**

Category	Production in 2007 (in tons)	% of total	Production in 2008 (in tons)	% of total	Production in 2009 (in tons)	% of total
Canning	32 688	72,5	39 805	73,4	39 558	86,1
Freezing	12 165	27,0	14 001	25,8	6 246	13,6
Drying	219	0,5	418	0,8	159	0,3
<b>Total</b>	<b>45 072</b>	<b>100</b>	<b>54 224</b>	<b>100</b>	<b>45 963</b>	<b>100</b>

Source: Own research 2010

According to the survey, industrial ajvar was mostly produced by the industry, (individually contributing with 22,7% to the overall production), followed by processed gherkins, roasted pepper, homemade ajvar, beetroot, frozen pepper, etc. Frozen peppers in terms of quantity faced sharp decline in production (only 2,8 thousand tons produced in 2009 compared to 8 thousand tons in 2008). Overall speaking, pepper based products were the most dominant in the overall production. More details related to the quantities of the specific products produced by the processing industry are provided in the following table.

**Table 5: Processed F&V products produced in 2007 - 2009**

Product name	Production in 2007 (in '000 t.)	% of total	Production in 2008 (in '000 t.)	% of total	Production in 2009 (in '000 t.)	% of total
Industrial ajvar	7,7	17,0	10,1	18,6	10,4	22,7
Homemade ajvar	1,9	4,2	2,6	4,8	2,2	4,8
Lutenica	1,0	2,2	0,9	1,7	0,9	2,0
Roasted pepper	2,7	6,0	2,2	4,1	3,2	7,0
Bleached pepper	1,4	3,1	2,0	3,7	1,9	4,2

Chilli peppers	2,3	5,1	1,9	3,5	1,9	4,2
Gherkins	5,0	11,1	5,0	9,2	3,9	8,4
Beetroot	1,9	4,2	2,5	4,6	3,3	7,2
Ketchup	1,4	3,1	1,8	3,3	2,3	5,0
Mixed salads	1,1	2,4	1,8	3,3	1,3	2,8
Frozen sour cherries	1,6	3,6	2,3	4,2	1,3	2,8
Frozen pepper	7,7	17,0	8,0	14,8	2,8	6,1
Other	9,4	21,0	13,1	24,2	10,5	22,8
<b>Total</b>	<b>45,1</b>	<b>100</b>	<b>54,2</b>	<b>100</b>	<b>45,9</b>	<b>100</b>

Source: Own research 2010

### 4.2.3 Utilization of production capacity

The general characteristic about the F&V processing industry is low level of utilization of installed production capacity. The average utilization in 2005 amounted to approximately 27%, 36% in 2006, 40% in 2007, 45% in 2008 and 38% in 2009. The overall installed capacity for processing of F&V is around 120.000 t. of final output. Decreased utilization of the production capacity is direct result of the effects of the economic crisis. Additional factors heavily affect the overall performance of the industry, including:

- Continuous supply of quality raw materials;
- Improved dialogue with F&V raw material suppliers (sorting, grading and delivery of produce);
- Defined purchasing prices for raw materials well before the season;
- Building of cooling facilities for storing the products;
- Access to finance;
- New product development and production of value added products;
- Training of the management and employees;
- Marketing related support etc.

According to the survey, targets of the F&V processing industry for 2009 season were buy out of 75 thousand tons of fresh vegetables (61 thousand tons were actually purchased) and 8 thousand tons of fresh fruits (6 thousand tons were actually purchased) or 83 thousand tons of raw materials in total. The results show that the industry purchased - 20% of the projected plans before the start of the production season. According to the F&V processors the main reasons that prevent higher utilization of the processing capacities were the following:

- Lack of raw materials (17 responses);
- Lack of working capital (25 responses);
- Lack of labor force (10 responses); and,
- Lack of markets (9 responses).

### 4.2.4 Trade with processed F&V

The processing industry of the RM has strong export orientation. Macedonian processed products currently enjoy positive reputation among the food importers from the region and EU, as well. As a result, there is a positive trend for increase of exported quantities. Very favorable trading regime between Macedonia and the EU,

and further liberalization especially as a result of CEFTA agreement should even more enhance the competitive position of the processed fruit and vegetable products.

Interestingly, domestic sales are also increasing, contributing to the overall performance of the industry. For example, domestic sales in 2004 were 9% higher than in 2003, while in 2005 the increase was 13% above 2004. Following this positive trend domestic sales in 2006 reached the volume of 7,5 thousand tons and further increased by 5% in 2007, reaching the volume of 7,9 thousand tons. In 2008, the domestic sales increased by 7% compared to 2007 and reached the volume of 8,5 thousand tons. In 2009, the domestic sales totaled to 8,6 thousand tons or + 1,1% compared to 2008. As already mentioned, the key reasons for having an increased domestic demand for processed products are:

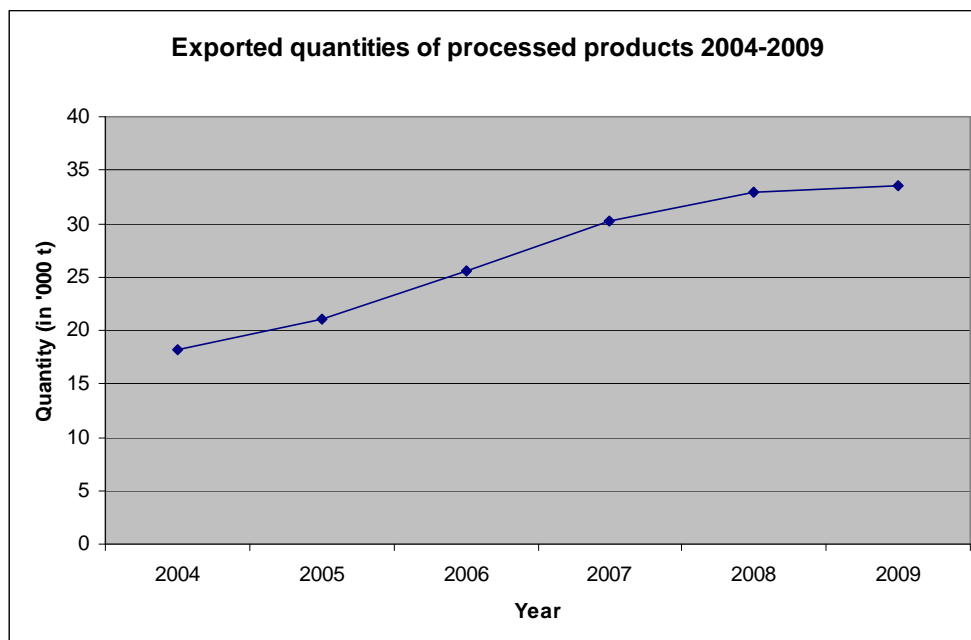
- Strong penetration of the supermarkets (retail chains) and changes in the purchasing patterns of the domestic consumers;
- Replacement of the traditional home-style individual production of processed goods (preserves) and shift towards buying products produced by the industry; and,
- Increased awareness about food safety and food quality issues.

Details related to the production, export and domestic sales as well as export values for the period 2004-2009 are presented below.

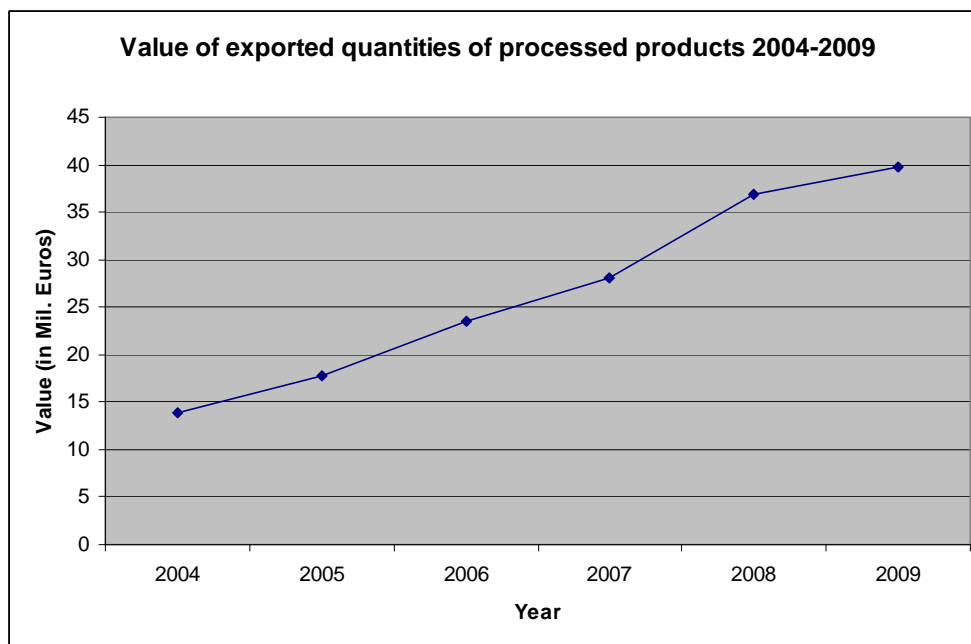
**Table 6: Performance of the F&V processing industry 2004-2009**

Year	Total production ('000 t.)	Export ('000 t.)	Domestic market ('000 t.)	Export value (in Mil. €)
2004	25,2	18,2	6,0	13,8
2005	28,8	21,0	6,8	17,8
2005/2004	+ 2,5	+ 2,8	+ 0,8	+ 4,0
2006	43,6	25,6	7,5	23,5
2006/2005	+ 15,4	+ 5,0	+ 0,7	+ 5,7
2007	45,1	30,3	7,9	28,1
2007/2006	+ 1,5	+ 4,7	+ 0,4	+ 4,6
2008	54,2	33,0	8,5	36,9
2008/2007	+ 9,1	+ 2,7	+ 0,6	+ 8,8
2009	45,9	33,5	8,6	39,8
2009/2008	-8,3	+0,5	+ 0,1	+2,9

Source: State Statistical Office, Own research 2010

**Chart 4: Exported quantities of processed products 2004-2009 in '000 tons**

Source: State Statistical Office, Own research 2010

**Chart 5: Value of exported processed products 2004-2009 in Mil. Euros**

Source: State Statistical Office, Own research 2010

The EU and neighboring markets are the main export destinations for domestically produced processed products. According to the 2009 survey, exports to the EU market contributed with 41,5% in volume (compared to 48% in 2008) and 46% in value (compared to 52% in 2008) of the overall export of processed products from Macedonia. In total, exports to the EU in 2009 were reduced by 14% in volume and 11% in value compared to 2008. Serbian market was the second biggest (20,6% in volume and 17,8% in value from the total exports in 2009). Exports to Croatia and Bosnia and Herzegovina considerably increased in 2009 in comparison to 2008. Overall regional exports of processed products in 2009 (to Serbia, Croatia, Bosnia

and Herzegovina, Montenegro and Kosovo) contributed with 52,3% in volume and 46% in value of the overall exports of Macedonian processed F&V. Overseas markets (particularly Australia and USA) due to large communities of immigrants from Macedonia but also from other Balkan countries are also very important export destinations. The most important export markets for domestically produced processed products, including the exported quantities and values for the period 2004-2009 are presented in the following table.

**Table 7: Main export markets for processed F&V 2006-2009**

<b>Year: 2006</b>	<b>Quantity (in '000 t.)</b>	<b>Quantity (In %)</b>	<b>Value (in Mil. €)</b>	<b>Value (in %)</b>
Total export	25,6	100	23,5	100
EU	11,7	45,7	10,5	44,7
Serbia and Montenegro <sup>5</sup>	7,7	30,0	6,7	28,5
Croatia	2,0	7,8	2,0	8,5
Bosnia and Herzegovina	1,6	6,3	1,6	6,8
Australia	0,7	2,7	0,9	3,8
USA	0,5	2,0	0,8	3,4
Other	1,4	5,5	1,0	4,3
<b>Year: 2007</b>	<b>Quantity (in '000 t.)</b>	<b>Quantity (In %)</b>	<b>Value (in Mil. €)</b>	<b>Value (in %)</b>
Total export	30,3	100	28,1	100
EU	17,0	56,1	14,5	51,6
Serbia <sup>6</sup>	6,0	19,8	5,2	18,5
Croatia	2,1	6,9	2,2	7,8
Bosnia and Herzegovina	1,6	5,3	1,6	5,7
Montenegro	1,5	5,0	1,7	6,1
Australia	0,9	3,0	1,2	4,3
USA	0,7	2,3	0,8	2,9
Other	0,5	1,6	0,9	3,2
<b>Year: 2008</b>	<b>Quantity (in '000 t.)</b>	<b>Quantity (In %)</b>	<b>Value (in Mil. €)</b>	<b>Value (in %)</b>
Total export	33,0	100	36,9	100
EU	15,9	48,2	19,1	51,8
Serbia	9,0	27,3	8,6	23,3
Croatia	2,6	7,9	2,7	7,3
Bosnia and Herzegovina	1,8	5,5	1,8	4,9
Montenegro	1,9	5,8	2,3	6,2
Australia	0,6	1,8	0,8	2,2
USA	0,6	1,8	0,8	2,2
Other	0,6	1,8	0,8	2,2
<b>Year: 2009</b>	<b>Quantity (in '000 t.)</b>	<b>Quantity (In %)</b>	<b>Value (in Mil. €)</b>	<b>Value (in %)</b>
Total export	33,5	100	39,8	100
EU	13,9	41,5	18,4	46,2
Serbia	6,9	20,6	7,1	17,8
Croatia	4,7	14,0	4,7	11,8
Bosnia and Herzegovina	2,2	6,6	2,5	6,3
Montenegro	1,9	5,7	2,3	5,8
Kosovo	1,8	5,4	1,7	4,3
Australia	0,7	2,1	1,2	3,0
USA	0,4	1,2	0,6	1,5
Other	1	2,9	1,3	3,3

Source: Own research 2010

<sup>5</sup> With Kosovo.

<sup>6</sup> With Kosovo, also for 2008.

According to the research, the most exportable processed products are pepper based products, in particular ajvar and lutenica (tariff number 2005), roasted red peppers, frozen peppers (0710), gherkins, chili and semi sweet pepperoni, beet root (tariff number 2001), dried products (0712), sour cherries frozen (0811) and preserved in alcohol (2008), etc. Definitions of the most important tariff numbers are provided in this report as annex 3, while complete statistics related to the export by country (values, quantities) and by tariff number (value, quantities) for the period 2004-2009 are attached as annex 4.

As it could be seen from the above, the Macedonian processed products have relatively low export value (around 1kg. per 1,2 € compared to 1,1 € per kg. from 2008). This categorizes the processed goods as “commodity” rather than products with added value. Also, producing and selling of own brands is lower than producing under private labels. As a result, the industry is building its export strategy primarily on competitive prices, rather than supply of value added products. Product differentiation; new product development; market segmentation, positioning and targeting; joint exports etc. will become major challenges that will face the industry in the forthcoming period.

At the moment, domestic processors seem to be heavily dependant on intermediate dealers (importers and wholesalers) when exporting their products abroad, although some of the processors already started to negotiate directly with the retail chains and/or to establish partnerships with specialized food products distributors. Domestically, they distribute their products directly to the retailers (in particular to the retail chains) or use intermediaries (wholesalers/distributors) with developed distribution network to cover numerous small retail shops. Production under private labels especially for large retail chains active in the country is also very present.

### **4.3 Location of the processing companies, size and employment**

In order to better understand the role of the processing industry and the impact that it has on the agribusiness sector performance, the analysis also takes into consideration several aspects related to the size of the companies and employment implications, both for full time and seasonal employment.

#### **4.3.1 Location of the companies**

The biggest concentration of the processing capacities is registered in Gevegeliya region (11), in Strumica region (9), Bitola – Ohrid (9), and Negotino-Kavadarci (6) while the rest of the facilities are scattered throughout the country. Geographical location of all F&V processing capacities (including those that reported no activities in 2009) are provided annex 2.

#### **4.3.2 Size of the companies**

According to the Macedonian legislation, companies in the country are classified as micro, small, medium and large according to the number of employees or by their annual turnover. The first criterion is mostly used to determine the size of the company. For the purpose of this analysis companies are classified according to the number of employees, as follows:

- Micro enterprises - up to 10 employees;
- Small enterprises - 11 to 50 employees;
- Medium size enterprises - 51 to 250 employees; and,
- Large enterprises – more than 250 employees.

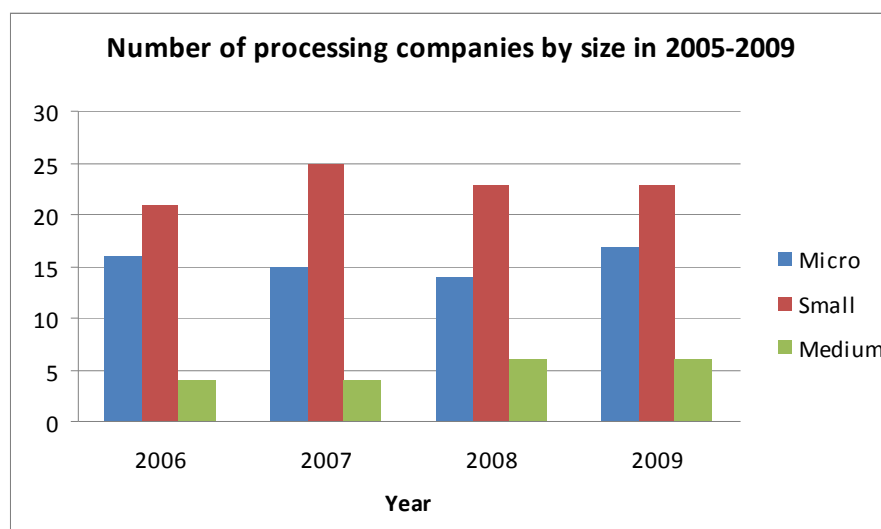
Information related to the size of the F&V processing companies is provided in the following table.

**Table 8: Size of F&V processing companies 2005-2009**

Category	2006	As % of total	2007	As % of total	2008	As % of total	2009	As % of total
Micro enterprises	16	39	15	34	14	32	17	37
Small enterprises	21	51	25	57	23	54	23	50
Medium enterprises	4	10	4	9	6	14	6	13
Large enterprises	0	0	0	0	0	0	0	0
<b>Total:</b>	<b>41</b>	<b>100</b>	<b>44</b>	<b>100</b>	<b>43</b>	<b>100</b>	<b>46</b>	<b>100</b>

Source: Own research 2010

**Chart 6: Number of processing companies by size in 2005-2009**



Source: Own research 2010

The vast majority of the F&V processing companies are classified as micro or small sized companies (90% in 2006, 91% in 2007, 86% in 2008 and 87% in 2009). Only 6 companies in 2009, the same as in 2008 (4 companies in 2006 and in 2007) had more than 51 employees, out of which only 1 had more than 100 employees<sup>7</sup>. According to the surveys conducted in the period 2006-2009, the number of micro sized companies decreased from 18 in 2005 to 14 in 2008 but it increased to 17 in 2009, while the number of small enterprises remained stable - 23 in 2009 (the same as in 2008). This preponderance of micro and small enterprises should encourage greater full-time labor demand in the forthcoming period. There are no large scale enterprises in the F&V processing industry, due to the seasonal character of the production, which in return only provides an opportunity for seasonal employment.

<sup>7</sup> Although two respondents reported more full time employees, for the purpose of this survey only F&V processing departments was taken into consideration and reviewed as small enterprises due to the fact that F&V processing is not their core business activity.

### 4.3.3 Employment and seasonal labor

The F&V processing industry is very labor intensive. Many of the production processes such as sorting, filling etc. are manually handled. Therefore, there is a need for seasonal labor, especially during production peaks. Extreme seasonality of the processing business on the other hand, does not allow larger employment on full time basis. According to the data provided by respondents the total number of full time employees amounted to 1.021 in 2005, 1.125 in 2006, 1.050 in 2007, 1.149 in 2008 and 1.205 in 2009, showing favorable increase by 5% in 2009 in comparison to 2008, as presented in the following table. The main reasons for increased number of full time employment is further growth of the companies and improved production and export performances.

**Table 9: Number of full time employees 2005-2009**

Year	Full time employees	Increase in % (compared to the previous year)
2005	1.021	-
2006	1.125	+ 10%
2007	1.050	-6,7%
2008	1.149	+ 9,4
2009	1.205	+4,8%

Source: Own research 2010

As already mentioned, seasonal labor is particularly important for the processing companies. The industry does not require a high level of skills or education from the seasonal workers. Most of the production phases do not require specialized preparations and/or training, apart from basic instructions related to net weight of finished goods, rejects identification and handling, waste disposal, etc. Complex procedures are handled by the full time employees. Most of the seasonal workers are recruited from the rural areas (villages), which is appreciated by the employers, since they have the experience in handling agricultural products. Women are mainly engaged to work on the production lines, while men are mainly involved in more physical demanding activities (loading, unloading etc.)

There is a positive trend related to the employment of seasonal labor. According to the survey, the number of seasonal workers engaged by the industry decreased from 3.722 in 2008 to 3.493 in 2009, or – 6,2%. Small size enterprises engage most of the seasonal labor since they represent the majority of the companies from the processing industry. More details are provided in the table below.

**Table 10: Engaged seasonal labor by the industry 2006-2009**

Company size	2006	% of total	2007	% of total	2008	% of total	2009	% of total
Micro enterprises	520	19	626	20	589	16	737	22
Small enterprises	1.665	60	1.948	60	1.793	48	1646	47
Medium enterprises	595	21	640	20	1.340	36	1110	31
<b>Total</b>	<b>2.780</b>	<b>100</b>	<b>3.214</b>	<b>100</b>	<b>3.722</b>	<b>100</b>	<b>3.493</b>	<b>100</b>

Source: Own research 2010

The seasonal labor is usually engaged during the high processing season for around 4-6 months per year. It should be emphasized that the seasonality depends on the type of processing (canning, freezing or drying). The most important factor for engagement of the seasonal labor is availability of the raw materials for processing.

#### **4.3.4 Seasonal labor compensation rates**

Seasonal labor compensation scheme is calculated as net price per working hour. The net price per working hour in 2008 (as in 2007) varies from 40 to 70 MKD. Compared to the previous year, the net price per hour paid in 2009 remained stable, the average reaching 50 MKD/hour. Based on the average net price per working hour, one seasonal worker usually earns an average net monthly salary of around 10-12.000 MKD. Although this amount is below the national average, it should be mentioned that some of other labor intensive industries, such as textile, offer even lower wages than the processing industry, although they are much more demanding in regards to skills and education of the labor force. The impact of the global crisis further contributed to the status quo situation in regards to the wages of the employees.

#### **4.3.5 Food safety and food quality**

Food safety and food quality issues are becoming essential prerequisites for managing every food business, including processed F&V. Apart from the strict requirements of the foreign buyers and markets, the domestic authorities and in particular consumers are becoming much more aware about the safety and quality of food products. According to the existing national food safety legislation, all food processing companies had to implement HACCP by September 2009.

The processing industry due to its export orientation already implemented the up-to-date food safety and food quality systems and standards. According to the survey, all interviewed companies implemented HACCP, while 14 companies are HACCP certified. ISO 22 000 is implemented by 13 processing companies, out of which 8 are certified.

#### **4.4 Perspectives of the industry in 2010**

Although the F&V processing industry constantly improved its performances over the period 2003-2008, the industry performance in 2009 was hit by the impact of the global crisis. Processing companies experienced reduced orders from their foreign partners, extensions in delivery dynamics and extended payment periods. The first signs of this scenario appeared by the end of 2008 but the real impact took place in 2009. Freezing capacities and drying capacities reported great slowdowns in their performances, while canning component was relatively stable in regards to output and exports.

The perspectives of the industry in 2010 will greatly depend on several factors, including: financial and management capacities of the companies and intensified cooperation with financial sector, increased cooperation with primary sector and re-definition of the existing export marketing strategies. The new law on agriculture and rural development enforced in the first half of 2010 aims to reorganize the existing cooperation between the key stakeholders, although it is questionable whether it is fully implementable.

## 5. CONCLUSIONS

- Fruit and vegetable processing industry has made continuous improvements over the period 2003 – 2008, but it faced decrease in production output in 2009 (compared to the previous year);
- The domestic processing industry faced severe effects of the global economic crisis – delays in payments , slow down in delivery of products and reduced output in 2009;
- The industry is defined as very seasonal, export oriented and products enjoy high reputation on regional and international markets;
- It is consisted of 49 active processing capacities in 2009, predominantly canning and combined processing enterprises;
- Majority of the facilities are located near to the main production regions in the country;
- Processing of vegetables is dominant business activity, covering around 91% of the total production;
- The processing output in 2009 is 45,9 thousand tons or -15% in comparison to 2008;
- EU and Serbia are the main export destinations for the Macedonian processed F&V;
- Regional markets are becoming the most important export markets, jointly contributing with 52,3% in volume and 46% in value to the overall exports of Macedonian processed F&V.
- Export of processed products increased in 2009 and reached the volume of 33,5 thousand tons and value of 39,8 million Euros;
- Majority of the processing companies are defined as small, while there is no large F&V processing enterprise;
- The industry employs 1.205 full time employees and 3.493 seasonal employees ;
- Most of the seasonal workers are from rural areas, skilled in handling agricultural products;
- The utilization of the industry declined to 38% in 2009, compared to 45% in 2008;
- Access to capital and shortages of raw materials are the biggest impediments for further growth of the industry;
- Development of a strategy for improved performances of the industry will be necessary to address the existing shortcomings and to propose set of measures that will secure constant growth of the processing industry in the forthcoming period.

## Annex 1: List of F&amp;V processing companies

No.	Company name	Address	Location	Tel.	Fax	E-mail	Web
1	Green product	s. Dzepiste	Tetovo	044 487 562	044 488 883	<a href="mailto:green.product@t-home.mk">green.product@t-home.mk</a>	
2	Swiss lion Agrar	29ti Noemvri br 6	Resen	047 452 191	047 452 191	<a href="mailto:agrar@swisslion.com.mk">agrar@swisslion.com.mk</a>	<a href="http://www.swisslion.com.mk">www.swisslion.com.mk</a>
3	Vori	Industriska zona bb	Gevgelija	034 218 172	034 211 188	<a href="mailto:vori@vori.com.mk">vori@vori.com.mk</a>	<a href="http://www.vori.com.mk">www.vori.com.mk</a>
4	Konimeks	Prvomajska 9, br.10	Skopje	02 2465 953	02 2469 472	<a href="mailto:info@konimex.com.mk">info@konimex.com.mk</a>	<a href="http://www.konimex.com.mk">www.konimex.com.mk</a>
5	Mirana	Blagoj Nacev br.49	Veles	043 222 605	043 222 205	<a href="mailto:mirana@mirana.com.mk">mirana@mirana.com.mk</a>	<a href="http://www.mirana.com.mk">www.mirana.com.mk</a>
6	Bonum plus	bul. Vojvodina bb	Skopje	02 2551 662	02 2551 662	<a href="mailto:bonum@t-home.mk">bonum@t-home.mk</a>	<a href="http://www.bonum.com.mk">www.bonum.com.mk</a>
7	Dentina	Goce Delcev 9	Strumica	034 334 400	034 334 402	<a href="mailto:dentina@t-home.mk">dentina@t-home.mk</a>	<a href="http://www.mabi-trade.com">www.mabi-trade.com</a>
8	Univerzal promet	Goso Vikentiev	Kocani	033 271 030	033 271 040	<a href="mailto:univerzalp@yahoo.com">univerzalp@yahoo.com</a>	<a href="http://www.univerzal-promet.com.mk">www.univerzal-promet.com.mk</a>
9	Vipro	Moiniski pat bb	Gevgelija	034 211 917	034 217 931	<a href="mailto:vipro@t-home.mk">vipro@t-home.mk</a>	<a href="http://www.vipro.com.mk">www.vipro.com.mk</a>
10	Antares	Stipski pat bb	Kocani	033 277 012	033 277 120	<a href="mailto:antares_sb@yahoo.com">antares_sb@yahoo.com</a>	<a href="http://www.antares.com.mk">www.antares.com.mk</a>
11	Domatti	Marsal Tito br.73	Sv. Nikole	032 443 316	032 440 135	<a href="mailto:domatti_ad@yahoo.com">domatti_ad@yahoo.com</a>	
12	Avto ria	Bul. Turisticka 4A/1-5	Ohrid	046 261 210	046 261 211	<a href="mailto:avtoria@t-home.mk">avtoria@t-home.mk</a>	
13	POT Kolesino	s. Kolesino	Strumica	034 352 052	034 352 053	<a href="mailto:pot.kolesino@gmail.com">pot.kolesino@gmail.com</a>	<a href="http://www.potkolesino.com">www.potkolesino.com</a>
14	Pajdakov	Vardarski rid bb	Gevgelija	034 211 888	034 211 888	<a href="mailto:info@pajdakov.com.mk">info@pajdakov.com.mk</a>	<a href="http://www.pajdakov.com.mk">www.pajdakov.com.mk</a>
15	Cekofam	Boris Kidric br.50	Pehcevo	033 441 469	033 441 469	<a href="mailto:cekofam@yahoo.com">cekofam@yahoo.com</a>	
16	Jomi food	Skopski pat bb	Veles	043 243 234	043 243 234	<a href="mailto:jomifood@yahoo.com">jomifood@yahoo.com</a>	
17	Agro halaz	Marsal Tito 196	Gevgelija	034 213 460	034 211 460	<a href="mailto:info@agrohalaz.mk">info@agrohalaz.mk</a>	<a href="http://www.agrohalaz.mk">www.agrohalaz.mk</a>
18	Kompani Z.Radevski	B. Miladinovi 19	Bitola	047 242 293	047 242 293	<a href="mailto:zoran.radevski@t-home.mk">zoran.radevski@t-home.mk</a>	
19	Agrokomerc 92	Leninova 92	Strumica	034 322 287	034 344 647	<a href="mailto:agrokmerc92@t-home.mk">agrokmerc92@t-home.mk</a>	
20	Industriski ladihnik	Marsal Tito 130	Tetovo	044 338 992	044 335 614	<a href="mailto:industriskiladihnik@t-home.mk">industriskiladihnik@t-home.mk</a>	
21	Best food TI	Industriska bb	Radovis	032 630 230	032 630 230	<a href="mailto:info@ti.com.mk">info@ti.com.mk</a>	<a href="http://www.ti.com.mk">www.ti.com.mk</a>
22	Kim	Industriska bb	Negotino	043 362 760	043 370 761	<a href="mailto:info@kim.com.mk">info@kim.com.mk</a>	<a href="http://www.kim.com.mk">www.kim.com.mk</a>
23	Ksenos	Partizanska 10	Demir hisar	047 277 607	047 277 608	<a href="mailto:ksenosdh@yahoo.com">ksenosdh@yahoo.com</a>	
24	Vitalia	ul.516 br.10	Skopje	02 3217 177	02 3217 176	<a href="mailto:contact@vitalia.com.mk">contact@vitalia.com.mk</a>	<a href="http://www.vitalia.com.mk">www.vitalia.com.mk</a>
25	Vitaminka	Lece Koteski 23	Prilep	048 407 407	048 407 451	<a href="mailto:contact@vitaminka.com.mk">contact@vitaminka.com.mk</a>	<a href="http://www.vitaminka.com.mk">www.vitaminka.com.mk</a>
26	Mahap	Straso Pindzur	Valandovo	034 383 009	034 383 009		
27	Best Agent	ul.840 br.11	Skopje	02 2550 295	02 2551 220	<a href="mailto:beag@t-home.mk">beag@t-home.mk</a>	

28	Kompanija Petrovi	Industrijska zona bb	Kavadarci	043 414 017	043 415 469	<a href="mailto:petrov@petrov-ffq.com">petrov@petrov-ffq.com</a>	<a href="http://www.petrov-ffq.com">www.petrov-ffq.com</a>
29	Agrolon	Ratko Jovanovik 67	Stip	032 459 590	032 459 590	<a href="mailto:agrolondoo@yahoo.com">agrolondoo@yahoo.com</a>	
30	Iro frozen	Talja Bikova br.10	Gevgelija	072 316 783		<a href="mailto:iro_frozen@yahoo.com">iro_frozen@yahoo.com</a>	
31	Sika	Voin Draskovic br.1	Skopje	02 2050 920	02 2050 921	<a href="mailto:sika-info@sika.com.mk">sika-info@sika.com.mk</a>	<a href="http://www.sika.com.mk">www.sika.com.mk</a>
32	Di Em GP	Basut bb	Negorci	034 550 428	034 231 428	<a href="mailto:diemgr@yahoo.com">diemgr@yahoo.com</a>	
33	Rudine MM	Lazar Licenovski bb	Skopje	023 228 871	023 228 871	<a href="mailto:rudine@t-home.mk">rudine@t-home.mk</a>	
34	Fruktana	Kocanska 26	Stip	032 382 392	032 384 128	<a href="mailto:mladen@fruktana.com">mladen@fruktana.com</a>	<a href="http://www.fruktana.com">www.fruktana.com</a>
35	Vegetrejd	Bosilovo	Stumica	034 358 808	034 323 092	<a href="mailto:vegetrejd@yahoo.com">vegetrejd@yahoo.com</a>	
36	Altra	Slobodan M. Danko 111	Gevgelija	034 214 383	034 216 258	<a href="mailto:contact@altra.com.mk">contact@altra.com.mk</a>	<a href="http://www.altra.com.mk">www.altra.com.mk</a>
37	DS Foods	11 Oktomvri bb	Kumanovo	031 437 193	031 437 196	<a href="mailto:sales@dsfoods.com.mk">sales@dsfoods.com.mk</a>	
38	Eko sto	s. Stojakovo	Strumica	034 235 650	034 235 650	<a href="mailto:ekosto@t-home.mk">ekosto@t-home.mk</a>	
39	Agrova	Kozle 30b	Skopje	02 3081 415	02 3081 415	<a href="mailto:agrovamk@gmail.com">agrovamk@gmail.com</a>	
40	Zora sped	Industrijska bb	Gevgelija	034 217 081	034 217 082	<a href="mailto:zorasped@t-home.mk">zorasped@t-home.mk</a>	
41	Lars	Goce Delcev 34	Stip	032 385 351	032 385 351	<a href="mailto:darko@lars.com.mk">darko@lars.com.mk</a>	<a href="http://www.susaralars.com.mk">www.susaralars.com.mk</a>
42	Tehnoalat komerc	Marsal Tito 124	Gevgelija	034 211 985	034 218 968	<a href="mailto:tehnoalat@t-home.mk">tehnoalat@t-home.mk</a>	<a href="http://www.hinaproducts.com.mk">www.hinaproducts.com.mk</a>
43	Trgoprodukt	s.Dabile	Strumica	034 330 065	034 323 065	<a href="mailto:trgoprodukt.mk@gmail.com">trgoprodukt.mk@gmail.com</a>	
44	Dim komerc	ul. Kame Polizov	Valandovo	034 381 562	034 383 562	<a href="mailto:dimkomerc@t-home.mk">dimkomerc@t-home.mk</a>	
45	Baga fud	Olevenski pat 46	Bitola	047 235 592	047 235 592	<a href="mailto:bagafud1@yahoo.com">bagafud1@yahoo.com</a>	
46	Ana mak	ul.205 br.5	Skopje	02 2532 794	02 3545 808	<a href="mailto:anamak_boana@yahoo.com">anamak_boana@yahoo.com</a>	

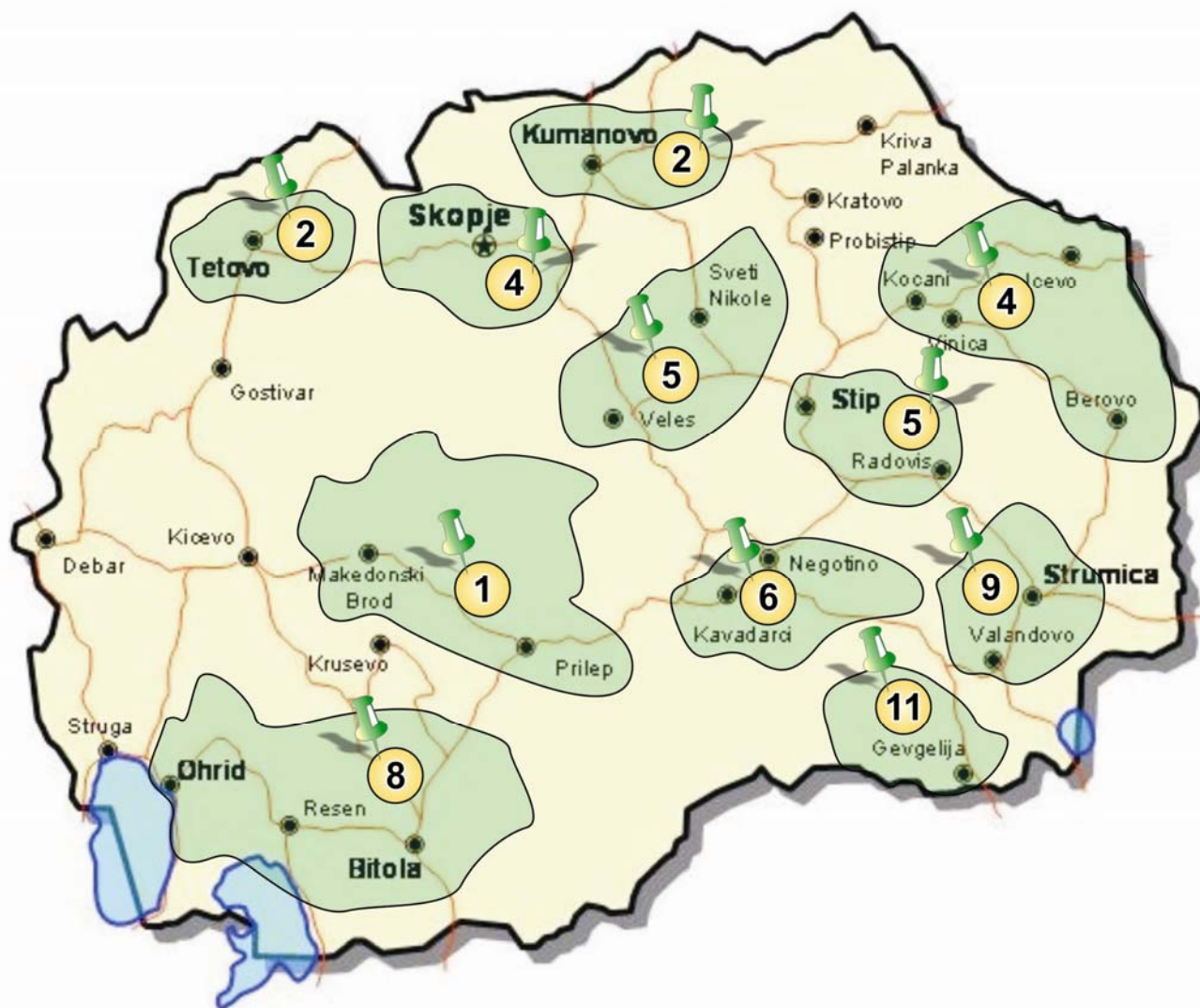
## Companies that did not respond

47	Maemi	Zeleznicka bb	Ohrid	046 262 203	046 262 203	<a href="mailto:maemi@mt.net.mk">maemi@mt.net.mk</a>	
48	Nimeks SA	Pitu Guli 70	Skopje	032 300 951	032 300 999	<a href="mailto:nimeks_sa@t-home.mk">nimeks_sa@t-home.mk</a>	
49	Diva		Bitola	047 230 705		-	

## Inactive Companies

50	Nak Sport	Bel kamen bb	Kavadarci	02 30 65 290	02 30 65 290	<a href="mailto:cemerskopole@sonet.com.mk">cemerskopole@sonet.com.mk</a>	
51	Skok Trade	GTC, Kej 13 Noemvri 3/1	Skopje	02 32 30 611	02 32 30 618	<a href="mailto:skok@unet.com.mk">skok@unet.com.mk</a>	<a href="http://www.rosko.com.mk">www.rosko.com.mk</a>
52	Konz. Strumica		Strumica	034 331 454	034 331 454		
53	Ango Komerc		Skopje		02 120 080	<a href="mailto:stojanoskiza@mt.net.mk">stojanoskiza@mt.net.mk</a>	
54	Sas Kuprom	Industriska bb	Gevgelija	034 218 889	034 218 889	<a href="mailto:saskuprom@yahoo.com">saskuprom@yahoo.com</a>	
55	Vasilev Komerc	S. Turnovo	Turnovo, Strumica	034 358 883	034 358 883	<a href="mailto:info@delifo.com">info@delifo.com</a>	<a href="http://www.delifo.com">www.delifo.com</a>
56	Kvalitet Komerc	Iindenska bb	Bitola	047 228 398	047 221 398	<a href="mailto:kvalitetkomerc@mt.net.mk">kvalitetkomerc@mt.net.mk</a>	
57	Medium eksport	Dimitrie Tucovik 24	Skopje	02 3771 164	02 3117 534	<a href="mailto:medium@t-home.mk">medium@t-home.mk</a>	
58	Promarkt		Skopje	02 3218 230		<a href="mailto:promarkt@t-home.mk">promarkt@t-home.mk</a>	

Annex 2: Geographical location of processing facilities in RM



**Annex 3: Definition of different tariff numbers**

<b>Tariff number</b>	<b>Description</b>
0710	vegetables, uncooked or cooked by steaming or boiling in water, frozen
0711	vegetables provisionally preserved, e.g. by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions, but unsuitable in that state for immediate consumption
0712	dried vegetables, whole, cut, sliced, broken or in powder, but not further prepared
0713	dried leguminous vegetables, shelled, whether or not skinned or split
0714	manioc, arrowroot, salep, jerusalem artichokes, sweet potatoes and similar roots and tubers with high starch or inulin content, fresh or dried, whether or not sliced or in the form of pellets; sago pith
0811	fruit and nuts, uncooked or cooked by steaming or boiling in water, frozen, whether or not containing added sugar or other sweetening matter
0812	fruit and nuts, provisionally preserved, e.g. by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions, but unsuitable in that state for immediate consumption
0813	apricots, prunes, apples, peaches, pears, pawpaws, tamarinds and other dried fruit n.e.s.; mixtures of edible nuts or dried fruits
2001	vegetables, fruit, nuts and other edible parts of plants, prepared or preserved by vinegar or acetic acid
2002	tomatoes, prepared or preserved otherwise than by vinegar or acetic acid
2003	mushrooms and truffles, prepared or preserved otherwise than by vinegar or acetic acid
2004	other vegetables prepared or preserved otherwise than by vinegar or acetic acid, frozen (excl. tomatoes, mushrooms and truffles)
2005	other vegetables prepared or preserved otherwise than by vinegar or acetic acid (excl. frozen, and tomatoes, mushrooms and truffles)
200600	fruit, nuts, fruit-peel and other parts of plants, preserved by sugar, drained, glaze or crystallized
2007	jams, fruit jellies, marmalades, fruit or nut puree and fruit or nut pastes, being cooked preparations, whether or not containing added sugar or other sweetening matter
2008	fruits, nuts and other edible parts of plants, prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, n.e.s.
200950	tomato juice, whether or not containing added sugar or other sweetening matter (excl. fermented or containing alcohol)
200971	apple juice (up to 20 brix), whether or not containing added sugar or other sweetening matter (excl. fermented or containing alcohol)

## Annex 4: Export of Macedonian processed products 2004-2009

Table: Export by country, value and quantities in 2004

Country		Quantities (in kg.)	Value (in €)
Non EU	Serbia and Montenegro	5,819,472	3,459,892
	Australia	1,059,598	1,023,651
	Croatia	880,749	870,822
	Bosnia and Herzegovina	687,671	609,497
	USA	388,898	459,527
	Switzerland	232,799	351,941
	Canada	94,830	133,541
	Albania	271,939	118,226
	Russia	57,163	28,785
	Great Britain	10,316	20,494
	Iran	5,706	15,576
	Norway	14,122	15,096
	Bulgaria	21,232	9,515
	NATO	1,491	1,465
Non EU Total		9,545,986	7,118,029
EU	Germany	2,865,249	2,058,150
	Greece	2,961,572	1,685,556
	Slovenia	709,678	689,855
	Italy	92,210	532,005
	France	545,848	521,115
	Austria	465,974	405,543
	Holland	241,897	262,847
	Poland	311,374	183,729
	Hungary	151,760	132,060
	Belgium	199,669	110,514
	Sweden	56,612	65,024
	Czech Republic	39,008	20,314
	Spain	5,040	10,854
	Slovakia	100	10
EU Total		8,645,992	6,677,577
Grand Total		18,191,978	13,795,605

**Table: Export by tariff number, value and quantities in 2004**

Tariff Group	Quantities (in kg.)	Value (in €)
2005	4,340,970	4,301,778
2001	3,577,678	2,682,429
0710	3,433,472	1,836,768
2008	1,114,665	1,399,790
2007	3,049,214	1,057,038
0811	1,004,642	825,799
0712	90,071	409,936
2002	355,315	333,038
0713	326,184	242,789
0711	410,045	221,275
2004	185,442	198,638
0813	56,805	109,664
2003	31,860	75,874
200971	91,982	52,037
0812	39,149	34,737
0714	79,438	7,214
200600	1,387	4,833
200950	3,660	1,968
<b>Grand Total</b>	<b>18,191,978</b>	<b>13,795,605</b>

**Table: Export by country, value and quantities in 2005**

Country		Quantities (in kg.)	Value (in €)
Non EU	Serbia and Montenegro	6,634,366	4,688,441
	Croatia	1,652,725	1,578,302
	Bosnia and Herzegovina	1,251,301	1,244,049
	USA	550,417	713,329
	Australia	538,877	557,679
	Switzerland	349,240	449,263
	Canada	150,594	246,619
	Bulgaria	529,528	155,889
	Sri Lanka	91,505	81,745
	Albania	139,615	73,493
	Russia	97,306	62,012
	Romania	30,930	22,882
	Norway	17,000	16,335
	South Africa	4,949	6,321
	Turkey	3,570	5,295
	NATO	3,187	2,529
	Zimbabwe	7,200	1,656
	Slovakia	360	608
Non EU Total		12,052,669	9,906,448
EU	Germany	2,771,682	2,215,003
	Greece	2,558,282	1,301,054
	Italy	208,148	1,145,436
	Slovenia	895,568	868,405
	Holland	556,805	550,863
	Austria	429,763	475,712
	France	500,540	471,404
	Poland	337,728	225,128
	Hungary	274,400	206,007
	Belgium	207,352	147,176
	Sweden	109,493	145,019
	Great Britain	32,603	63,962
	Spain	24,565	20,370
	Cyprus	17,587	13,735
	Denmark	20,497	10,470
	Czech Republic	6,184	3,992
EU Total		8,951,198	7,863,736
Grand Total		21,003,867	17,770,184

**Table: Export by tariff number, value and quantities in 2005**

Tariff Group	Quantities (in kg.)	Value (in €)
2005	5,571,265	5,925,519
2001	4,371,404	3,707,253
0710	3,630,597	1,832,031
0811	1,482,335	1,328,094
2008	933,804	1,263,471
2007	2,413,158	932,553
0712	90,286	755,064
2004	477,549	579,939
2002	354,463	319,691
0711	354,817	205,577
200971	266,426	175,173
0713	429,815	173,118
2003	89,119	157,205
0812	199,670	155,529
200600	140,272	115,117
0813	140,776	93,956
210320	58,097	50,834
0714	5	52
200950	8	7
Grand Total	21,003,867	17,770,184

**Table: Export by country, value and quantities in 2006**

Country		Quantities (in kg.)	Value (in €)
Non EU	Serbia and Montenegro	7,721,333	6,737,162
	Croatia	2,048,664	2,001,954
	Bosnia and Herzegovina	1,559,990	1,604,858
	Australia	737,601	865,578
	USA	527,054	805,427
	Canada	229,739	399,855
	Switzerland	249,020	334,876
	Albania	160,769	91,170
	Romania	313,950	65,549
	Bulgaria	276,376	57,951
	New Zealand	13,654	23,327
	Russia	19,680	16,728
	Norway	15,272	14,963
	Sudan	8,724	14,782
	Congo	3,763	6,098
	NATO	2,684	2,583
	Portugal	306	635
	Malta	205	374
	Slovakia	94	131
Non EU Total		13,888,878	13,044,000
EU	Germany	2,893,227	2,621,534
	Greece	2,871,485	1,553,475
	Austria	721,649	914,674
	France	825,561	889,159
	Slovenia	873,386	878,293
	Italy	286,962	807,919
	Holland	611,868	675,038
	Sweden	285,944	657,978
	Belgium	1,175,348	611,780
	Poland	821,988	489,505
	Hungary	327,230	303,930
	Great Britain	24,895	37,360
	Croatia	25,068	19,566
	Cyprus	1,332	3,269
EU Total		11,745,942	10,463,481
Grand Total		25,634,820	23,507,481

**Table: Export by tariff number, value and quantities in 2006**

Tariff Group	Quantities (in kg.)	Value (in €)
2005	6,378,135	7,875,729
2001	5,469,262	4,711,851
0811	2,643,740	3,535,595
0710	5,397,805	2,662,234
2008	1,462,367	1,757,511
2007	1,519,093	586,464
2002	509,134	417,958
2004	318,302	382,870
0712	128,964	303,125
0711	305,399	223,886
0812	336,395	198,925
0713	339,677	192,455
200600	212,696	171,656
200971	217,046	141,088
2003	28,757	140,278
0813	77,366	103,436
210320	101,281	89,386
0714	188,950	12,742
200950	450	294
Grand Total	25,634,820	23,507,481

**Table: Export by country, value and quantities in 2007**

Country		Quantities (in kg.)	Value (in €)
EU	Germany	5,282,020	3,939,093
	Belgium	2,392,181	1,497,879
	Italy	446,812	1,384,879
	Slovenia	988,764	1,371,051
	Austria	1,227,601	1,326,910
	Greece	2,447,771	1,272,921
	Holland	1,313,899	1,176,576
	Poland	1,084,114	723,862
	France	555,096	583,827
	Hungary	449,004	483,053
	Bulgaria	599,508	380,543
	Sweden	94,052	129,022
	Cyprus	41,703	74,475
	Romania	37,776	53,413
	Great Britain	26,993	49,647
	Denmark	21,430	15,788
	Spain	423	1,736
EU Total		17,009,147	14,464,673
Non EU	Serbia	6,016,630	5,234,633
	Croatia	2,143,117	2,232,241
	Montenegro	1,471,166	1,738,132
	Bosnia and Herzegovina	1,561,094	1,600,871
	Australia	863,288	1,156,044
	USA	663,842	801,897
	Canada	228,876	423,799
	Switzerland	235,454	334,225
	Albania	74,329	47,400
	Sudan	10,149	16,821
	Norway	5,357	7,918
	Costa Rica	21,600	6,361
	Turkey	3,024	6,229
	Surinam	15,444	5,126
	Namibia	1,974	1,546
	Iraq	1,123	1,383
Non EU Total		13,316,468	13,614,625
Grand Total		30,325,615	28,079,298

**Table: Export by tariff number, value and quantities in 2007**

Tariff Group	Quantities (in kg.)	Value (in €)
0710	8,302,005	5,076,279
0711	402,025	285,152
0712	101,469	242,029
0713	110,057	91,858
0714	13,200	3,620
0811	3,223,713	3,100,755
0812	152,959	163,669
0813	36,828	67,600
2001	6,845,934	6,044,527
2002	202,848	165,094
2003	602,084	1,051,061
2004	911,024	1,263,333
2005	5,924,919	7,816,209
200600	311,354	250,281
2007	1,388,068	619,853
2008	1,416,474	1,597,350
200950	1,418	1,627
200971	251,225	154,838
210320	128,011	84,161
Grand Total	30,325,615	28,079,298

**Table: Export by country, value and quantities in 2008**

Country		Quantities (in kg.)	Value (in €)
EU	Germany	4,364,536	3,694,609
	Greece	2,118,211	1,277,508
	Belgium	1,344,922	889,292
	Poland	1,340,878	1,080,875
	Slovenia	1,175,063	1,602,836
	Holland	1,149,287	1,304,099
	Italy	1,020,403	5,094,220
	Austria	939,731	1,167,510
	France	887,905	1,292,605
	Hungary	594,173	585,821
	Bulgaria	354,634	273,858
	Sweden	161,433	288,783
	Great Britain	141,725	129,225
	Czech Republic	112,998	105,605
	Spain	106,589	195,997
	Romania	45,190	64,822
	Slovakia	34,010	33,795
	Cyprus	28,662	34,961
	Portugal	526	1,317
EU Total		15,920,878	19,117,738
Non EU	Serbia	9,042,486	8,627,758
	Croatia	2,620,733	2,685,831
	Montenegro	1,890,309	2,271,553
	Bosnia and Herzegovina	1,846,134	1,847,765
	Australia	615,452	801,457
	USA	552,335	756,586
	Switzerland	234,541	350,019
	Canada	119,257	65,806
	Albania	119,255	238,930
	Norway	29,432	38,320
	Ireland	25,322	30,041
	Mongolia	13,149	17,629
	Turkey	8,632	13,061
	Ghana	832	2,078
Non EU Total		17,117,869	17,746,835
Grand Total		33,038,747	36,864,573

**Table: Export by tariff number, value and quantities in 2008**

Tariff Group	Quantities (in kg.)	Value (in €)
2005	7,127,913	9,499,312
2001	8,874,518	8,011,150
0710	6,215,381	5,100,906
0811	3,615,105	3,979,046
0712	220,244	3,215,376
2008	1,841,775	2,226,368
2004	1,145,060	1,588,411
0711	735,841	828,378
2003	372,413	629,368
2007	1,268,228	560,988
2002	561,977	447,468
0713	396,521	275,671
200971	309,325	175,779
0813	114,533	153,600
210320	196,018	123,723
200600	28,967	45,873
0714	14,350	2,430
200950	578	726
Grand Total	33,038,747	36,864,573

**Table: Export by country, value and quantities in 2009**

Country		Quantities (in kg.)	Value (in €)
EU	Italy	1.100.112	6.797.769
	Germany	3.974.392	3.279.353
	France	1.016.584	1.780.245
	Slovenia	1.098.507	1.430.235
	Greece	2.428.175	1.376.422
	Austria	1.273.335	1.010.981
	Poland	1.224.071	867.852
	Holland	375.756	470.445
	Hungary	420.627	453.592
	Belgium	379.400	206.935
	Sweden	158.712	206.123
	Bulgaria	220.197	185.978
	Spain	85.019	124.076
	Great Britain	108.845	110.787
	Czech Republic	70.152	68.166
	Romania	21.596	60.646
	Cyprus	24.000	30.714
	Slovakia	4.536	6.969
	Portugal	3	11
EU Total		13.984.019	18.467.299
Non EU	Serbia	6.959.893	7.154.056
	Croatia	4.711.165	4.776.842
	Bosnia and Herzegovina	2.299.649	2.527.385
	Montenegro	1.947.279	2.381.512
	Kosovo	1.757.555	1.666.151
	Australia	778.626	1.252.780
	USA	419.565	628.376
	Switzerland	268.237	433.946
	Canada	180.124	342.154
	Albania	199.648	119.883
	Norway	46.236	61.655
	Russia	5.173	14.596
	Ukraine	36	45
Non EU Total		19.573.186	21.359.381
Grand Total		33.557.205	39.826.680

**Table: Export by tariff number, value and quantities in 2009**

Tariff group	Quantities (in kg.)	Value (in €)
2005	8.286.518	11.566.157
2001	10.254.746	9.604.009
0710	6.178.409	5.529.755
0712	354.870	4.436.651
2008	1.796.477	2.142.055
0811	2.450.899	2.082.071
2004	616.213	997.725
2002	801.798	678.313
0711	560.409	654.734
2003	304.056	511.359
0813	242.194	416.433
2007	640.807	400.052
0713	350.928	272.914
200600	197.780	216.180
200971	345.076	193.701
210320	171.837	122.191
0714	3.100	1.360
200950	1.088	1.020
Grand Total	33.557.205	39.826.680