



MINISTRY OF AGRICULTURE FORESTRY
AND WATER ECONOMY OF THE
REPUBLIC OF MACEDONIA



2010

**ANNUAL REPORT ON AGRICULTURE
AND RURAL DEVELOPMENT**



PREFACE

The annual agricultural report of the Ministry of Agriculture, Forestry and Water Economy is a publication that provides an overview of the achievements of the agricultural and food sector of the Republic of Macedonia and the activities of the Ministry for 2010.

The report comprises ten chapters. This publication first provides the development policies for agriculture and rural areas, adaptation to the European Union and international cooperation, as well as the horizontal and administrative and control issues. Then it provides an overview of the macroeconomic situation of the Republic of Macedonia focusing on the agricultural and food sector, the value of agricultural production, the achieved production results by subsectors, including organic production, as well as the trade with agricultural and food products. In addition, the report also addresses the aspects of food safety and sustainable management of natural resources, as well as trends in education, science and knowledge transfer.

When preparing the report, the authors used several sources of information, primarily the individual reports prepared and the sectors and offices within the Ministry of Agriculture, Forestry and Water Economy. Certainly, one important source of information is also the State Statistical Office of the Republic of Macedonia. In addition to publications and official sources, some parts of the report also use expert estimates.

I hope that the Annual Report for 2010 will continue to be a useful reference and will be widely used by the participants in the agriculture and food sector.

Sincerely,

Minister of Agriculture Forestry and Water
Economy

A handwritten signature in blue ink, which appears to read 'Ljupcho Dimovski'.

Ljupcho Dimovski

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I. DEVELOPMENT POLICIES FOR AGRICULTURE AND RURAL AREAS

Agriculture (together with forestry and fishery) is the third biggest economic sector after services and industry in the economy of the Republic of Macedonia.

The increase of the competitive pressure in the processes of intensive integration in the international flows of exchange of goods, and primarily with the accession of the Republic of Macedonia in the WTO and the signing of other bilateral and multilateral free trade agreements, is a serious challenge for the Macedonian Agriculture.

In the upcoming medium term, the Macedonian agriculture and food sector as well as the relevant institutions, should significantly converge, according to their performance, organization, and development to the level determined by the standards defined in the regulations of the Common Agricultural Policy (CAP) of the EU, which are the most difficult and complex chapter in the negotiation process for accession in the EU. Following the national interests, the real needs and the needs of the sector, the reforms that will be implemented through three main areas: policy reforms, institutional reforms and legislative reforms, will also have in mind the need to mitigate the adverse effects facing a part of the agriculture and rural population during the intensive process of adaptation to the complex European standards.

Objectives and measures of the development policies for agriculture and rural areas

The National Development Plan 2008-2013, chapter 7 – Rural Development and Agriculture Development, stipulates the following objectives and measures of the development policies for agriculture and rural areas:

1. Strengthen the competition of Macedonian agriculture in the integrated regional markets of the European Union and southeastern Europe by implementing measures to increase the efficiency of agricultural production, processing and sales.
2. Improve the incomes of agriculture economies.
3. Provide the consumers with access to safe and healthy food.
4. Optimize the utilization of limited land, forest and water resources in a way that will not adversely impact the environment.
5. Build sustainable rural communities through an integrated development of rural areas and reduce the urban – rural development disparities.
6. Build appropriate, efficient public and private institutions to implement agriculture and rural development policies.

The achievement of the vision and the stated strategic objectives for the development of the sector will be realized through the measures and instruments of the agricultural policies, i.e. the agricultural and rural development policy, policies for supporting agriculture and policies for supporting rural development.

1. Agriculture and rural development policy

Agriculture and rural development are the key elements for the Republic of Macedonia in its pre-accession process to the European Union. Because of the unsustainable situation of rural areas in the Republic of Macedonia, as well as the EU guidelines related to the increasingly significant financial support of rural development, in January 2007, the Government of the Republic of Macedonia enacted a Law on Agriculture and Rural Development (Official Gazette of the Republic of Macedonia, no. 134/07). The enactment of this law, as the highest legal act in agriculture, represents a starting point in the reforms and a foundation of the development of the sector as well as the entire Macedonian economy.

Following the Law, in June 2007, the National Strategy for Agriculture and Rural Development 2007 – 2013 was enacted. These two documents had clearly interlinked objectives. Thereby, the Government (especially the Ministry of Agriculture, Forestry and Water Economy – MAFWE) and the institutions and stakeholders (rural population, farmers and farmer associations, groups of producers and processors) provided a multiyear reference material – strategy and an instrument for development of Macedonian agriculture and rural areas. In addition, a base of support was provided to the draft of the hierarchically subordinated operational plans for agriculture and rural development, especially the Pre-accession Document for Agriculture and Rural Development (IPARD) and their discussion with the European Commission.

The goal of the National Strategy for Agriculture and Rural Development is to contribute to the achievement of the Strategic Goal stipulated in the National Economic Development Plan 2007 – 2009 that

states: "Increase the international competitiveness of the country which is a prerequisite for a sustainable economic growth and greater employment".

In December 2007, the European Commission adopted the IPARD plan of the Republic of Macedonia for the period 2007-2013. With this act, the Republic of Macedonia fulfilled the specified deadlines for the use of IPARD funds directly intended for the farmers, the processing sector and the development of rural areas. The measures of the IPARD program focus on improving the competitiveness of farms and the processing food industry in specific subsectors through investments in the technological and market infrastructure, with a view of increasing the value added of the agricultural products and further harmonization with the EU standards for quality, food safety, animal wellbeing and environmental protection.

In line with the situation in the sector, the new Law on Agriculture and Rural Development (Official Gazette no. 49/2010) was enacted in April 2010.

MAFWE is the managing authority for rural development in the Republic of Macedonia, and it plans, monitors and evaluates the activities and programs, coordinates the different institutions in the sector and supervises the financial functions with respect to rural development. This institution is a partner responsible for the overall cooperation with the EC in the area of managing agriculture and rural development.

2. Policies for supporting agriculture

The agriculture supporting policies, which is the first pillar of the Common Agricultural Policies of the EU is financed from national funds through the Programs for Financial Support of Agriculture and Rural Development.

2.1 Direct payment measures

The measures for supporting agriculture have, in the past, been distributed to a certain number of traditional products without a defined concept about the effects and objectives to be achieved. With a predominantly social nature, the measures were without clearly defined criteria for applying the support and without successful systems for monitoring, control and impact assessment. The strategy for the period 2007 – 2013 sets the new principles for the support policies and measures adapted to the expected changes in the legislation, institutions and control systems.

Still, the following facts have to be considered:

- A date for starting the accession negotiations between the Republic of Macedonia and the EU has not been set.
- The Republic of Macedonia should gradually reform its regulatory, institutional and agricultural support policies, with a view of harmonizing them with the supporting policies of the EU, i.e. with the CAP before accession.
- CAP is a variable objective and significant modifications can appear from time to time. For example: increased simplification, shifting from coupled to decoupled direct payments and reduced support.

It is necessary to be careful and pragmatic with the introduction of the present CAP. The selected agriculture support policies in this Strategy mainly consider the development and the social requirements of the Macedonian agriculture and will be gradually adjusted when the country is ready to shift to the CAP models in the EU. This will also depend on the amount of funds available to the MAFWE for implementation of these policies in the future.

2.2 Target categories of products and producers

In order to achieve the objectives defined in the new government agricultural policy, the supporting policies have been targeted to the following categories of products or producers:

1. Support provided to **competitive, export oriented products** in demand (especially on the European markets) with competitive advantages over foreign production (**tobacco, production of grapes and quality wines, lamb meat, production of fruit and vegetables**).
2. Production of **alternative cultures and/or nontraditional products** with export potentials that generate higher revenues using limited resources and which are an alternative solution to the traditional products with declining competitiveness, by reducing the customs protection (organic and integrated production, oil yielding crops for production of bio-fuels, flower production, small fruits and nut, asparagus, broccoli, snails, ostriches, aromatic and medicinal herbs).

3. Provide support to **traditional products, traditional skills and knowledge of social importance** for rural areas and of importance for **security of basic foods** for people that are not sufficiently productive. This support should be provided during a short to long term transition period of adaptation. The support should include measures for yield increasing in regions with comparative advantages for production and growing crops, as well as measures to introduce alternative production in the regions with very low yields and quality, as compared to imports (for example wheat).
4. Provide support to products with **significant shares in the value of imports**, and which have unused potential to increase production and which have comparative advantages over products from other countries (for example: production of broilers, baby beef meat using the system cow-calf).
5. Production of **high yield, certified seed and seedling material (adapted to local conditions)** and distribution of such material to the users so that they can overcome the problem of using trade products, such as cereal crops and improving the quality of crop varieties (tobacco, early vegetables, fruit and grapevines), as well as measures to **improve the structure of livestock breed**.
6. Provide support for **implementation of EU standards** that increase the competitiveness of products (HACCP¹, EUROGAP, certification of organic production, supporting activities for promotion of typical national brands of agriculture products and promotion of such products on foreign markets).

The yield of single year and multiyear crops shows high annual variations due to the variable climate impacts, the low level of application of modern agricultural technologies, "in primis" irrigation, as well as due to the former inconsistent agriculture support policies. The vertical interconnectivity is poor or there are not stable contractual or cooperative connections between the farmers and the processing industry and the groups of producers in the fruit and vegetable subsectors. There is a need to modernize the processing industry. In addition, there is a need to increase the support by providing research, extension and training services. The first step towards reduction costs of the agriculture productions was the reduction of the VAT rate to 5% for raw materials, primarily seed and seedling materials, agricultural and chemical products and mineral fertilizers.

The existing subsidies for integrated crop management and good agricultural practices, as well as for organic production should continue, in order to support and even increase the export demand, as well as to provide for appropriate control and inspection. Market quality standards should be defined and adopted for most of the agricultural crops, as well as food industry safety standards (HACCP) which become more and more important. The production of certified seed and seedling material (fruit and vine seedlings) should be expanded and controlled.

The propose measures are instruments for realization of the specific subsector objectives and they are intended to support only producers that:

- Are registered with MAFWE and with the relevant associations and national councils (the responsibility and part of the control mechanisms will be awarded to the associations and the councils).
- Maintain regular accounting records.
- Can prove that they have contracts with traders, processors and distributors.
- Can prove that they use certified seeds.

After the adoption of the legislation, the financial support should preferably be channeled through the applicants that are organized as groups of farmers (groups or producers, organizations and cooperatives) and that contribute towards strengthening the market chain.

The gradual implementation of the aforementioned general eligibility criteria (which can change in line with the needs), depends on the establishment of the relevant registries, control mechanisms and manuals for the implementation of the measures.

3. Rural development support policies

The changes of the provisions for rural development within the Law on Agriculture and Rural Development were the final elements of the basis for transposing the principles for the implementation of the rural development measures harmonized with the principles for programming, monitoring and implementation of the rural development policies of the EU and the guidelines from the strategic framework for rural development policies of the member states. The law regulates, in detail, the principles, objectives, beneficiaries and the

¹ HACCP is an abbreviation for Hazard Analysis and Critical Control Point and represents a system for detecting specific hazards and implementing measures of control in order to ensure food safety. In addition it is also a tool for assessing the hazards and introduction of control systems aimed at preventing these hazards rather than testing/verifying the end product.

implementation criteria of the set of coherent priority axes and relevant measures for realization of the objectives of the national agricultural policy of the Republic of Macedonia in accordance with the EU.

3.1.1. National rural development policy

Since 2010, the rural development policy is being implemented through a national support scheme in accordance with the Government Regulation for Implementing the Rural Development Policy ("Official Gazette of the Republic of Macedonia" no. 54/2008, 53/2009, 122/2009), adopted in accordance with the Law on Agriculture and Rural Development ("Official Gazette of the Republic of Macedonia" no. 134/2007) and it is financed through the Rural Development Financial Support Program for 2010 ("Official Gazette of the Republic of Macedonia" no. 8/2010), adopted in accordance with the Law on Execution of the Budget of the Republic of Macedonia.

In 2010, a series of bylaws were prepared in the area of agro – environment, additional activities of agricultural holdings, training and education of agricultural producers. Efforts were made to establish and maintain the work of the Rural Network in the Republic of Macedonia as a form of partnership in the process of creation and implementation of the rural development policies.

National Rural Development Financial Support Program

In 2010, about 80% of the planned funds for implementing measures for financial support of rural development, financed by the Budget of the Republic of Macedonia, were realized. The biggest percentage of utilization of this financial support is related to the measure involving investments in agricultural holdings for procurement of machinery for cereal and industrial crops as well as fruit and vegetable growing. The interest is especially focused on procuring new tractors, which in turn helps renew the agricultural machinery which is rather old due to lack of investments during the past 20 years.

The preliminary analysis of the previously collected data, suggests that well known measures that are being implemented continuously since 2006, are well known and identified by the users and therefore they result in high absorption. In 2010, the timely publication of the measures from the Rural Development Program (at the beginning of the year, January 2010), was a positive factor that contributed to the successful implementation of those measures.

From the point of view of transparency and publicity, manuals for beneficiaries have been prepared in a simplified form and numerous workshops were held throughout the country. All of the problems identified during the implementation stage will largely contribute to improve the efficiency and the readiness of the Agency for Financial Support of Agriculture and Rural Development (hereinafter in the text AFSARD) to implement the program in 2011. MAFWE will further intensify its activities for better publicity.

Other policies related to rural development (rural credits, extension services)

The Agricultural Credit and Discount Fund (ACDF) was formed in order to provide support to agricultural producers and facilitate the access to funding under favorable conditions. The Agricultural Credit and Discount Fund (ACDF) is responsible for paying out credit applications and is based on an agreement / memorandum of understanding between the Government of the Republic of Macedonia and the financial institutions. The financing arrangement is 20% from the financial institutions and 80% from the ACDF funds, which consist of IFAD1 and IFAD2, PSDL, EIB loan arrangements.

The following categories are financed through ACDF:

- credits for purchasing capital investments and operational costs for production of primary farmers up to 100,000 EUR per user, with an interest rate of 4% per year, if the credit is paid through commercial banks or 6% if it is paid out through saving houses.
- credits for purchasing capital investments and operational costs of small and medium enterprises whose core business is agriculture food processing, up to 200,000 EUR per user, with an interest rate of 5% per year if the credit is paid through commercial banks or 6.5% if it is paid out through saving houses.
- credits for purchasing capital investments and operational costs of small and medium enterprises that export agricultural and food products, up to 200,000 EUR per user, with an interest rate of 5% per year if the credit is paid through commercial banks or 6.5% if it is paid out through saving houses.

The conditions and the period of repayment of these loans are under the jurisdiction of the financial institutions in accordance with their credit policy. The regular repayment period is 7 years with a 3 year grace period for capital investments and 3 years with a 1 year grace period for operational costs.

According to the decision of the Government of the Republic of Macedonia, starting from 01.07.2010 the ACDF is administered within the Macedonian Bank for Development Promotion (MBDP). This arrangement is

regulated with an Agreement for Administration between the Ministry of Finance and the MBDP. With a view of increasing the accessibility of the credit funds to the target group and improving the credit conditions through increased competitiveness, MBDP undertakes a series of activities to increase the number of financial institutions that service these credits. The number of these financial institutions will increase to 11. Of them 9 are commercial banks and 2 are saving houses.

Number of approved credits and approved refinancing

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	total
Number of approved credits	18	400	761	1131	435	1183	513	387	18	4846
Amount of the approved refinancing (in million EUR)	0,3	2,1	2,6	4,5	2,0	12,2	10,5	3,8	0.2	38.2

Source: MAFWE

The average amount of credit approved is 10,302 EUR.

Compared to the previous period, the realization of the ACDF credit line during 2010 has reduced, primarily as a result of the economic crisis that lead to the implementation of a more restrictive credit policy on the part of the participating financial institutions, and to deferral of investments planned by the potential credit users.

Overview of the structure of approved credits by credit categories, 2010

	Credit category	Number of approved credits	Percentage of the total number of approved credits	Total amount of the approved credits (EUR)	Percentage of the total amount of approved credits	Total amount of approved refinancing (EUR)
1	Credits for primary production	4554	94	28,806,970.06	58	21,765,790.40
2	Credits for processing of agricultural products	253	5	18,809,159.65	38	14,691,678.37
3	Credits for export of agricultural products	39	1	2,309,652.42	4	1,766,256.51
	Total	4846	100	49,925,782.13	100	38,223,725.28

Source: MAFWE

Out of the total approved credits: 94% are credits of up to 100,000 EUR for primary production, 5% are credits of up to 300,000 EUR for small and medium enterprises that process agricultural products, and 1% is credits of up to 200,000 EUR for supporting the exports of agricultural products. The value structure shows that the share of credits intended for primary agricultural production is the biggest, with 28.8 million EUR or 58% of the total funds. This is followed by the credits for processing agricultural products with 18.8 million EUR (38%) and credits for export of agricultural products, in the amount of 2.3 million EUR (4%).

Projection of the available funds for credits to be provided through the Agricultural Credit Discount Fund

The projections for withdrawing funds from ACDF until the end of the year, submitted by the participating financial institutions cumulatively amount to 6.5 million EUR,, out of which 4.1 million EUR for primary agricultural production; 2.0 million EUR for processing of agricultural products and 0.4 million EUR for exporting agricultural products.

Structure of the funds administered within ACDF (as of 31.01.2011)

Source of funding	Liquid funds	Receivables
IFAD 1	325,901.51	464,794.32
IFAD 2	1,698,488.43	4,498,549.14
PSDL 1	135,101.47	3,505,155.81
PSDL 2	1,675,383.79	8,596,578.19
EIB	2,721,211.92	9,760,355.28
Total	6,556,087.12	26,825,432.74

Source: MAFWE

3.1.2 IPARD Program – program for agriculture and rural development

The implementation of the IPARD Program 2007-2013 began immediately after the enactment of the decision to transfer the right to manage the funds allocated to IPA Component V for rural development (IPARD), awarded by the European Commission on the 18th of December 2010 (Commission Decision no. (C) 2009/987/EU). The transfer of the right, i.e. the so called accreditation relates to the three measures from the IPARD Program:

- Measure 101 – Investments in agricultural holdings for restructuring and upgrading to the EU standards.
- Measure 103 – Investments in processing and marketing of agricultural and fish products for the purposes of their restructuring and upgrading to the EU standards.
- Measure 302 – Diversification and development of rural economic activities EU.

Since the enactment of the decision to transfer the right to manage the funds from the fifth component of IPA, two advertisements for submission of applications for funds from the IPARD program 2007 – 2013 have been published.

Public calls for the IPARD program in 2010

The first public call to submit applications for funding from the IPARD program was published on 23.12.2009 and the deadline for submission of applications was 60 days.

After the first call for applications to use funding from the IPARD program, AFSARD received 133 applications with a total value of the investments of 18,551,040 EUR and a total amount for co-financing of 9,253,360 EUR. AFSARD approved 28 applications and 27 co-financing agreements were signed with a total amount of the investments of 3,867,481 EUR and a total amount for co-financing of 1,971,635 EUR (of which 1,478,726 EUR were EU funds). The total approved sum for co-financing was 1,971,635 EUR and it draws 70% of the financial allocations for 2007.

Financial implementation by measures, in EUR

Measure	Allocated IPARD funds		Approved/contract signed		% of implementation
	Total value	b. EU (75%)	c. Total value	d. EU (75%)	c/a
M101	10,893,333	8,170,000	764,458	573,343	7.0%
M103	8,866,667	6,650,000	1,180,595	885,447	13.3%
M302	4,560,000	3,420,000	26,582	19,936	0.6%
Total	24,320,000	18,240,000	1,971,635	1,478,726	8.1%

For *measure 101 – Investments in agricultural holdings* 58 applications were received during the first advertisement, with a total value of the investments of 4,782,401 EUR, of which **15 applications** were approved, with an approval rate of 26%. The rejection rate for M101 was 74%. The highest rejection rate can be found in the priority sector gardening (100%) and the lowest in the Production for Livestock for Slaughtering (63%). The highest amount of acceptable investments can be found in the priority sector 104 Production of Livestock for Milking.

For the *measure 103 – Investments in processing and marketing of agricultural and fish products for the purposes of restructuring and upgrading to the EU standards* we have received 41 applications, with a total value of investments of 9,697,937 EUR, of which 11 applications were approved, with an approval rate of 27%. The rejection rate for M103 is 73%. The highest rate of rejection can be found in the priority sector Meat Processing (100%) and the lowest in the priority sector Wine Production (60%).

The total value of the investments in the approved applications was 2,361,191 EUR with a total sum for co-financing of 1,180,595 EUR, of which 885,447 EUR (75%) are EU funds. The highest amount of approved investments (more than 80%) are in the priority sector 1032 Fruit and Vegetable Production (including fruit and vegetable purchasing centers).

For *Measure 302 – Diversification and development of rural economic activities EU*, we received a total of 34 applications with a total value of the investments of 4,070,702 EUR and a total amount for co-financing of 1,922,640 EUR. In the project approval process, 1 application was approved for this measure, with an approval rate of 3% and a rejection rate of 97%.

The second public advertisement to submit applications for funding from the IPARD Program was published on 30.12.2010, and the applications had to be submitted within 60 days or not later than 29.11.2010. AFSARD received 112 applications which are being administrated.

The second public advertisement included financial allocations for the financial period 2007- 2010 for amounts reduced by the amounts of the signed contracts from the first public advertisement.

Preparation for the third amendment to the IPARD Program 2007-2013

The draft proposal of the third cycle of amendments is under preparation. The working document comprises amendments related to the results and findings from the first and the second public advertisements (published in December 2009 and September 2010), updating of the legislation in order to include the definition of mountainous regions, in order to take advantage of the possibility to increase the intensity of the assistance so that the potential beneficiaries can invest in these areas and in order to quantify indicators for measuring the results and the efficiency of the program.

Preparatory activities for agro-ecological measures

The IPA Component I project started in November 2010 and it included the following:

- support of the preparations of the agro-environmental measures – this envisions technical assistance for the finalization of the agro-ecological measures and their introduction into the IPARD Program,
- support of the IPARD Agency for preparation of procedures for implementation of agro-ecological systems, and
- support of the institutional organization and the preparation of the legislation necessary to implement the measures.

The project also envisions some support for informing the potential beneficiaries about the measures, training and education of the relevant inspection services. The plan of activities for introducing this measures stipulates that the proposed measures will be prepared in June 2011 and, until September 2011, these measures will be subject to public consultations, which will be followed by the drafting of the final proposal in the form of an amendment of the IPARD Program.

Preparatory activities for LEADER

The preparatory activities for introducing LEADER measures were supported by the CARDS 2006 IPARD Support, which began in November 2009 and is planned to last until November 2011. The LEADER strategy was prepared in November 2010 and it was presented before the participants in the process and is subject to consultations.

The plan of activities for introducing this measure states that the bylaws required for implementation of the measures will be prepared by June 2011, and they will be subject to public consultations until September 2011, after which the final proposal for introducing the LEADER measure, will be drafted in the form of an IPARD program amendment.

Coordination of the work of the IPARD Monitoring Committee

The IPARD monitoring committee held two regular meetings in 2010. The spring (sixth) meeting was held in May 2010 and the fall (seventh) meeting was held in December 2010. During these meetings, the following decisions were taken: adoption of the proposal for the third set of amendments of the IPARD Program 2007-2013, adoption of communication and publicity reports and the communication action plan for 2011, reports on the progress of the IPARD program realization process and reports on the ongoing assessment of the implementation of the IPARD Program.

Activities for publicity of the IPARD Program

In 2010, 20 specialized info events for IPARD were held as well as 12 interviews and presentations on events related to agricultural topics, 7 panel discussions about the problems regarding the implementation of the IPARD Program with representatives of agricultural associations as well as 2 television panel discussions. More than 200 publications related to IPARD were registered in the electronic and printed media in 2010. Most of the information conveyed by the electronic media was directly provided by the IPARD Management Authority and AFSARD as well as the institutions responsible for the implementation of the IPARD program, while the daily press continuously quoted and referred to their statements. The national television broadcasted several specialized shows on the topic of IPARD where the civil servants presented the measures, the investment types, the criteria as well as the procedure for project selection.

3.2. Direct financial support of agriculture and rural development in 2010

The policies for development of agriculture and rural areas have been appropriately supported by the budget. This budget support should facilitate the implementation of the planned activities and the attainment of the planned results by 2013.

This initiative is realized through: direct payments (subsidies) per hectare of crop production or per head of livestock.

Growth trend of the budget support provided by MAFWE (in thousand MKD)

	2005	2006	2007	2008	2009	2010
MKD Budget	66,538,469	88,576,000	79,552,497	89,397,520	153,215,000	161,838,801
MAFWE	1,459,518	1,453,972	2,002,140	4,257,000	7,550,236	7,747,658
Share	2.2%	1.6%	2.5%	4.8%	4.9%	4.8%

Source : MAFWE

The Rural Development Policy is the second financial instrument for economic and social development of rural areas. The objective of this development policy is to prevent the depopulation process on one hand and, on the other hand to emphasize the natural and inherent values as part of the cultural heritage of the Republic of Macedonia.

Overview of the approved financial support in agriculture in 2010 by sector programs

Num.	Sector Program	Amount (MKD)
1.	Agriculture (crop and livestock)	5,326,700,000
2.	Expanded forest reproduction	150,000,000
3.	Healthcare of animals	205,000,000
4.	Veterinary public health	35,000,000
5.	Plant health	12,000,000
6.	Seeds and seedling materials	600,000
7.	Development and promotion of hunting and protection of wild game	10,000,000
8.	Rural development	329,000,000
9.	Fishing and aquaculture	64,300,000
Total :		6.132.600.000

Source : MAFWE

Overview of funds for financial support of agriculture in 2010, by programs

Num.	Name of measure	Amount (MKD)
1.	Crop production	2,937,000,000
2.	Livestock	1,733,100,000
3.	Implementation of food safety and quality standards	20,000,000
4.	Organic agriculture production	70,800,000
5.	General measures	61,000,000
6.	Unrealized obligations from 2009	504,800,000
Total:		5.326.700.000

Source : MAFWE

The Rural Development Financial Support Program was adopted in 2010. Most of the funds (51%) were targeted towards investments to improve competitiveness and modernization of agricultural holdings.

Rural Development Financial Support Program

Num.	Measure / group of investments	In MKD
1.	Investments for the improvement of the competitiveness and modernization of agricultural holdings, including aquaculture	168,000,000
2.	Investments in processing, storage, sorting, packing and marketing of agricultural products	63,000,000
3.	Investments in rural infrastructure	67,000,000
4.	Financial support to promotional activities for the development of rural tourism	7,000,000
5.	Investments in knowledge improvement and development of human potential of agricultural producers by providing advisory services and education on agriculture sector management	9,000,000
6.	Support for organizing joint production activities of agricultural holdings	8,000,000
7.	Investments for production and use of renewable energies in rural areas	4,000,000
8.	Costs for program implementation	3,000,000
	Total	329.000.000

Source : MAFWE

4. Agency for Financial Support of Agriculture and Rural Development

The Agency for Financial Support of Agriculture and Rural Development (hereinafter in the text AFSARD) is an operational authority, established as an autonomous authority in accordance with the Law on Establishment of the Agency for Financial Support of Agriculture and Rural Development ("Official Gazette of the Republic of Macedonia" no. 72/07 and 5/09") and it reports directly to the Government of the Republic of Macedonia.

After the accreditation that was awarded in December 2009, AFSARD published two new advertisements, published on the 23rd of December 2009 and the 30th of September 2010, and a third advertisement is planned for February 2011.

With respect to IPARD, the following measures were advertised in the public advertisements:

- Measure 101 "Investments in agricultural holdings for restructuring and upgrading to the EU standards" – priority axis 1;
- Measure 103 "Investments in processing and marketing of agricultural and fish products for the purposes of their restructuring and upgrading to the EU standards" – priority axis 1;
- Measure 302 "Diversification and development of rural economic activities" – priority axis 3.

The public demonstrated a lot of interest for the first public call for applications. A total of 133 applications were submitted after the first advertisement. Only 27 contracts were signed. After the second advertisement, a total of 112 applications were received.

Overview of submitted applications and signed contracts regarding measures from the first public advertisement

Measure	Number of received applications	Number of contracts signed	Amount in EUR
Measure 101	58	15	1,180,595.33
Measure 103	41	11	98,382.94
Measure 302	34	1	26,581.86

Source: AFSARD

Financial implementation of the IPARD Program

The budget for the first public advertisement comprised financial allocations from 2007, 2008 and 2009 and it amounted to 24,320,000 EUR. Within this budget, a total of 27 contracts were signed, with a total amount of 1,971,635 EUR for all three measures of the Program:

The second public advertisement for applications comprised the financial allocations from 2007, 2008, 2009 and 2010, and it amounts to a total of 40,028,365 EUR.

The total budget for implementing the third public advertisement is 20,720,000.00 EUR or 1,274,393,960.00 MKD.

Upcoming accreditation of the remaining measures from the IPARD program

In the context of implementing the measures from the IPARD program, in 2010, the Agency prepared to implement measure 501 – Technical Assistance from the IPARD Program. The agency organized several trainings about implementing public procurement in accordance with the PRAG procedure. The prepared working procedure was submitted to the National Accreditation Coordinator and the Directorate General for Agriculture of the European Commission in Brussels on 20.09.2010.

Realization of the Program for Financial Support in Agriculture 2010

The total envisioned budget for the Program for Financial Support in Agriculture for 2010 was 86,336,585.00 EUR and it was provided by the Budget of the Republic of Macedonia. The applications approved in 2010 amounted to a total of 75,466,429.26 EUR

Realization of the Rural Development Financial Support Program 2010

The funds envisioned for the realization of the financial support for rural development for 2010 amounted to 9,414,634.14 EUR and were provided from the budget of the Republic of Macedonia.

II. HARMONIZATION WITH THE EU AND INTERNATIONAL COOPERATION

1. EU integration

The Republic of Macedonia continued with the efforts aimed at harmonizing the national legislation with the legislation of the EU in the areas regulated by the Common Agricultural Policy (CAP) of the EU, including institutional building to implement those policies.

In the process of accession into the EU, the Republic of Macedonia has the following short term priorities: the process of registration of agricultural land in the real estate cadaster, collection and processing of verified agricultural data and the establishment of efficient and financially stable paying bodies that will manage and control the funds intended for the agriculture in accordance with the requirements of the EU and the International Standards for Auditing.

In the medium run, the identified priorities related to the strengthening of the capacity of the administration in the area of agriculture and preparation for implementation and practical application of the Common Agricultural Policy mechanisms, primarily the Integrated Administrative and Control System (IACS) and the Land Parcel Identification System (LPIS).

According to the obligations arising from the National Programs for Adoption of the Acquis NPAA 2010 and NPAA 2011) which refer to agriculture and rural development, the following laws are either enacted or are in the stage of preparation:

- **New Law on Agriculture and Rural Development** ("Official Gazette of the Republic of Macedonia" no. 49/10) which established a legal basis for closer regulations of the area related to providing support in agriculture and how that support will be realized. These provisions are in harmony with the legislative framework for this area in the EU, in particular with respect to direct payments, market intervention measures, rural development, state aid, as well as the assistance for organization of agricultural producers. This law also regulates a number of issues related with the establishment of registers and records in agriculture, primarily the establishment of the Integrated Administration and Control System (IACS) with all of its elements. With respect to financing the measures for financial support of agriculture and rural development, the Agency for Financial Support of Agriculture and Rural Development developed working procedures for direct payments in agriculture, payment of intervention measures, promotion measures, as well as payment of agriculture measures introduced in accordance with the rules of the EU regarding the European Agricultural Guarantee Fund. The enactment of the bylaws arising from the Law on Agriculture and Rural Development ("Official Gazette of the Republic of Macedonia" no. 49/10) will contribute to full harmonization with the legislation of the EU (by the end of 2011).

The Law on Agriculture and Rural Development gave rise to two programs realized during 2010. These were: **Program for Financial Support of Agriculture for 2010** ("Official Gazette of the Republic of Macedonia" no. 07/10) and the **Program for Financial Support of Rural Development for 2010** ("Official Gazette of the Republic of Macedonia" no. 08/10).

- Regarding the Joint Regulation of Markets (JRM) of agricultural products of plant and animal origin, the MAFWE prepared a **Law on Quality of Agricultural Products** ("Official Gazette of the Republic of Macedonia" no. 140/10) about the most significant products, selected based on their significance and share in the overall agricultural production in the Republic of Macedonia, regulating them in the broader frame of JRM.

In this context, the following plans and plant products (cereals, and rice, dried fodder and fresh fruit and vegetables), as well as animal products (beef, eggs, and poultry meat, pork, mutton and goat meat, milk and dairy products and homey and other bee products) are regulated in the Law on Quality of Agricultural Products, especially with respect to the establishment and control of market standards, informing consumers and the overall product marketing and the market information system.

- **Law on Wine.** Considering the recent reform the JOM of wine of the EU, the national legislative framework related to wine has been harmonized with the enactment of ("Official Gazette of the Republic of Macedonia" no. 50/10). In addition to the Law on Wine, there are also 13 bylaws enacted pursuant to the law which further regulate the areas of enological means and procedures applied in wine production, analysis methods, classification of varieties of grapes for wine production, conditions for wine production, the form, content, dimensions and other data contained on the label, the content and the form of the accompanying document and the input and output registers of grape products and wine, as well as the geographic areas planted with grapevine for the purposes of protecting the geographic origin

of the wine in the Republic of Macedonia, the list of protected names of wines with their appellations of origin and the rules of labeling the areas of production.

- **The new Law on Organic Agriculture Production** is harmonized with the Regulation of the Council no. 834/2007 and the Regulation of the Commission no. 889/2008. This law became legally effective and started to apply since 01.01.2010. Several bylaws were enacted in addition to the Law on Organic Agriculture Production in 2010. These regulations regulate the area of production, processing, labeling of organic products, authorization and certification, as well as control systems. Most of the bylaws have been taken from the Lists published in the Regulation of the Commission no. 889/2008, in particular: List of Fertilizers and Agents to Improve Soil Properties, List of Agents for Protection of Plants, List of Ingredients not Produced in Accordance with the Principles of Organic Production, List of Cleaning and Disinfection Agents, List of Fodder Crops, List of Fodder Additives and Other Substances used to Feed Animals, List of Products and Substances Used in the Process of Organic Food Processing. In addition, the Program for Stimulating and Development of Organic Agriculture for 2010 was also adopted and realized during this period.
- The area of **Quality Policy** has been harmonized with the EU policies with the enactment of the Law on the Quality of Agriculture Products. A measure focusing on the quality and food safety standards was realized within the Subprogram for Stimulating Agricultural Development in 2010. In addition, the list of priority products for protection of origin has been upgraded.
- In the area of **fishing**, the **Law on Changes and Additions to the Law on Fishing and Aquaculture** ("Official Gazette of the Republic of Macedonia" no. 67/10) was enacted. This law regulates areas directly related to fishing – agricultural inspection, concessions, protection of nature, as well as veterinary issues from the area of health protection of animals, as well as state aid in fisheries and aquaculture in accordance with the EU Regulations 32008R0736 and 32006R1198. In addition, this law further defines the penalty provisions with a view of reducing the penalties. Also, accompanying rules have been enacted. These rules further define the provisions for organizing recreational fishing and performing aquaculture. **The Program with Measures for Promotion of Fishing and Aquaculture for 2010** ("Official Gazette of the Republic of Macedonia" no. 07/10) has been enacted.
- MAFWE actively participates in the realization and the utilization of the **EU pre-accession assistance funds** from the first IPA component.
The following are the initial projects within IPA 2008:
 1. **Common Market Organizations – CMO** – Technical Assistance from IPA funds in the amount of 0.64 million EUR. This project began in the second half of 2010.
 2. **Land Parcel Identification System – LPIS** Technical Assistance from IPA funds in the amount of 0.54 million EUR. This project began in the second half of 2010.
 3. **Development and implementation of agro-ecological measures**, a project financed by IPA TAIB, the amount of the project is 0.70 million EUR, and the project began by the end of 2010 and is ongoing for one year now.

The sixth meeting of the subcommittee for agriculture and fishing between the Republic of Macedonia and the EU was held in April 2010.

2. International cooperation

Sector for international cooperation

The basic task of the Sector for International Cooperation is to organize, direct and coordinate the work in the area of international and trade cooperation, in particular:

- To coordinate the foreign aid provided through international (multilateral and bilateral) donors with a view of developing the sectors under the jurisdiction of MAFWE, and
- Follow the trade policy and exchange of agricultural and food products and realize the obligations in accordance with agreements that regulate trade relations of the Republic of Macedonia in the agricultural and food sector.

The activities of the international donor community (multilateral and bilateral donors/institutions) are directed at ensuring efficient implementation of the national priorities and activities in the process of structural reforms and development of the agricultural and rural sector, as well as the policies for food safety, forestry and

water economy. Another integral task of the sector is the following and implementing the obligations arising from the trade policies in the agriculture and food sector, which has a key role in the overall economy of the country.

Activities of the sector for international cooperation in 2009:

- The document “Priority Areas for Donor Assistance” identifies five priority areas and it has been adopted by the Government of the Republic of Macedonia in May 2010. The priority areas are:
 - Rural Development Program,
 - Program for the development of a competitive agriculture sector,
 - Program for water economy,
 - Program for forestry,
 - Program for food safety.
- A program approach was developed for the purposes of implementation and coordination of foreign aid. The Government, through the Secretariat for European Affairs, and with the support of the entire donor community represented in the Republic of Macedonia, promoted a new concept “Program Approach to Implementing and Coordinating Foreign Aid”. The purpose of the Program Approach is to overcome the limitations of the project approach by establishing a greater harmony between the programs and the objectives that have to be achieved with the foreign aid, as well as a more coherent coordination of the realization of the foreign aid. Within the Government, the Sector for European Affairs is coordinating this initiative, while the Sector for International Cooperation within MAFWE is the implementing agency for the activities in the third (out of five thematic working groups) working group that looks at agriculture and other sectors within the jurisdiction of the MAFWE.
- Monitoring of the obligations arising from the trade exchange and the Stabilization and Association Agreement;
- Continuous monitoring of the activities related with the participation in the Food and Agriculture Organization of the United Nations - FAO
- Coordination of the implementation of projects supported by the Program for Technical Cooperation with FAO,
- Coordination of projects supported by multilateral donors: World Bank, USAID, AgBiz, FAO (“Support of Management of State Owned Agricultural Land”, “Prevention of Forest Fires” etc.), as well as activities relates to bilateral cooperation countries as Slovenia, Israel, Slovakia, Netherlands, Egypt etc., as well as continuous negotiations with bilateral and multilateral donors for approval of new projects in accordance with the determined priorities of the MAFWE;
- Updated database of ongoing or planned projects and activities supported by international donors.

The following activities are implemented in the area of **bilateral cooperation** in the agriculture and other related sectors:

- Negotiations about the Agreement between the Government of the Republic of Macedonia and the Cabinet of Ministers of Ukraine on cooperation in the area of plant protection.
- Negotiations about the Memorandum of Understanding between the Government of the Republic of Macedonia and the Government of the Republic of Turkey on cooperation in the area of agriculture.
- Preparation of a draft agreement between the Ministry of Agriculture, Forestry and Water Economy of the Republic of Macedonia and the Ministry of Agriculture of the Republic of India on cooperation in the area of agriculture and related sectors.
- A protocol for cooperation in the area of agriculture and related sectors has been signed between the Ministry of Agriculture, Forestry and Water Economy of the Republic of Macedonia and the Ministry of Agriculture, Forestry and Rural Development of the Republic of Kosovo.
- The amendments of the CEFTA Agreement 2006 (according to article 10, paragraph 3 of the Agreement) have been initialed and signed by all members countries, and the ratification process is still pending;
- The Regional Programs for Mitigating the Consequences of Climate Change in the Agriculture Sector in Europe and Central Asia (a World Bank supported activities) has been realized. The obligations arising from this program are being implemented. These include preparation of an Adaptation Plan, as well as programming of activities to be supported by the World Bank within a “Program for Analytic and Advisory Support on Climate Change and Green Growth of the Republic of Macedonia”.

In addition, the international cooperation contains programs and projects from the area of agriculture and environment implemented within the framework of the bilateral help offered to the Government of the Republic of Macedonia. The following countries and programs are most significant:

■ **Kingdom of the Netherlands**

“ORIO” Program focuses on infrastructure projects from the area of agriculture, environmental protection and social services, particularly in the following sectors:

- Water sector:
 - Potable water (collection and treatment, distribution);
 - Waste water (drainage and sewerage, treatment);
 - Irrigation and drainage systems.
- Environmental sector:
 - Solid waste management (collection, processing, recycling);
 - Climate (mitigation of the greenhouse effects, adaptation to climate change);
 - Protection of waters and soils;
 - Protection of biodiversity.
- Social services sector:
 - Healthcare (construction of hospitals, medical equipment);
 - Education (construction of schools, teaching facilities).

The realization of ORIO projects is financed through the Ministry of Development Cooperation of the Netherlands, and the Agency for International Cooperation (EVD) is responsible for implementation.

Program G2G, (Government to Government – Coordinated by SEF)

The beneficiaries are the Government of the Republic of Macedonia and the Government of the Netherlands, in the following areas:

- Environment (synchronization of the legislation)
- Improvement of the functioning of the public institutions with a view of stimulating investments and trade
- Finances (managing public consumption and internal control)

■ **Kingdom of Norway**

The Norwegian program for bilateral project cooperation is realized through the Annual Program for Bilateral Project Cooperation in Priority Sectors, such as:

- Good governance
- Energy, environment and climate change (MAFWE in the sector of waters and forestry, as well as climate changes)
 - Peace and peaceful coexistence
- Increasing employment.

III. HORIZONTAL ISSUED AND ADMINISTRATIVE AND CONTROL SYSTEMS OF AGRICULTURAL POLICY

The implementation, management and control of the agricultural policy of the Republic of Macedonia, harmonized with the Common Agricultural Policy of the EU, implies developing and strengthening of appropriate administrative capacities. In 2010, with the new organizational additions in the structures of the Sectors and Offices of the MAFWE, the number of employees is 1122 officers, not counting the employees in the Agencies and Public Enterprises working in the area.

1. Institutional setup of the MAFWE

According to the last horizontal and vertical reorganization of the sectors of MAFWE on central and regional level, the setup is as follows:

Sectors within MAFWE:

- Sector for financial issues
- Sector for coordination and technical assistance of the Cabinet of the Minister
- Sector for internal audit
- Sector for EU integration
- Sector for international cooperation
- Sector for human resources
- Sector for normative and legal matters
- Sector for analysis of agricultural policy
- Sector for information technology
- Sector for misdemeanors
- Sector for agriculture
- Sector for vine growing, wine and fruit production
- Sector for registration and management of agricultural land
- Sector for organization and coordination of branch offices
- Sector for rural development
- Sector for forestry and hunting
- Sector for forest police (without the status of civil servants)

Authorities within the MAFWE:

- Office for Water Economy
- Veterinary Administration
- Office for Health of Plants
- State Phytosanitary Laboratory
- Office for Seeds and Seedling Material

Inspectorates within the MAFWE:

- State Agricultural Inspectorate
- State Inspectorate for Forestry and Hunting

Agencies and offices in the area of agriculture and rural development:

- Hydro-meteorological Institute
- Agency for Financial Support of Agriculture and Rural Development (AFSARD)
- Agency for Support of Agriculture Development – Bitoa (ASAD)

Public enterprises working in the area:

- PE agro-exchange
- PE for pastures
- PE for forests

The Ministry of Agriculture, Forestry and Water Economy has 33 branch offices with a total of 219 employees, distributed in all regions of the Republic of Macedonia. There will be a period of redefining the position, the capacities and the responsibilities in line with the policy objectives in agriculture and rural development, with a view of introducing a regional approach and achieve effective use of the funds and improve the efficiency of the activities of MAFWE.

Introducing an Integrated Administration and Control System (IACS)

The establishment of the Integrated Administration and Control System is one of the key medium term priorities for the period 2009-2011. The activities that will be realized in this respect are in accordance with the "Accession Partnership" and chapter 11 dedicated to agriculture.

The Integrated Administrative and Control System comprises five elements (Council Regulation 3508/92):

- (1) A computer database that saves the data from the applications for financial support for each agricultural company;
- (2) An agricultural land parcel identification system, i.e. a system that provides a possibility to locate and monitor registered parcels, as well as computer verification and on-the-spot verifications;
- (3) System for identification and registration of animals. This should help control and verify applications for support on the spot;
- (4) System for tracking and processing applications for financial support using payments per unit of capacity;
- (5) System for efficient administration and implementation of the plans for registration and identification, integrated system for administrative control and field inspections.

In order to support the preparation of analyses for setting up, implementation, control and monitoring of the effects from agriculture and rural development policies, it is necessary to establish an Agricultural Information System (AIS) as one of the most important short term priorities from the process of EU integration with respect to horizontal issues.

The envisioned activities relate to the following administrative, control and information elements of the integrated system:

- Single Register of Agricultural holdings (SRAC)
- Land Parcel Identification System (LPIS),
- Agricultural Market Information System (AMIS),
- Farm Accounting Data Network (FADN) and agricultural statistics.

Some of them are either parts or contribute to the functioning of the Integrated Administrative and Control System) with respect to implementing and monitoring of the measures for direct payments and rural development.

The full functionality of the systems will facilitate the setup of efficient policies based on needs and problems in the sector. In addition, the system will help to successfully implement such measures, reduce as much as possible any potential irregularities or abuses, better control, and evaluation of the effects of the policies. The integration of the different databases and registers should simplify the procedures for application for support policies and will provide useful information to the business sector.

According to the Law on Agriculture and Rural Development, MAFWE is the institution responsible for establishing the integrated information system that should provide for collection and processing of data for the agricultural sector, coordination, and sustainability of the data exchange with other relevant institutions, as well as dissemination of data to end users.

All of these activities will contribute to the establishment of a functional system which will enable interconnectivity of all registers under the jurisdiction of the Ministry of Agriculture, Forestry and Water Economy and its authorities.

2.1 Single Register of Agricultural holdings (SRAC)

The objective of the Ministry is to have an integrated and protected register of agricultural holdings. The software application generates an identification number for each registered agricultural company. This enables the creation of an electronic database which is important for efficient decision making and implementation of policies.

The software application is located on a central server unit located in a special room (server room) constructed in accordance with EU standards. The 33 branch offices have user applications. The officers use these user applications to enter the registered agricultural holdings in the system.

The data on the production capacities of the agricultural holdings are entered and updated locally in the branch offices of MAFWE, when filing the applications for subsidies. At the beginning of 2008, the Ministry enacted the rule book on the form, content and the maintaining of the Single Register of Agricultural holdings (Official Gazette 62/08). At present, we are in the final phase of drafting and enacting a new Rule Book that will

improve the functioning of the entire process of registering agricultural holdings based on the comments provided by AFSARD as well as the identified shortcomings. The rule book has been submitted to the Legislative Secretariat at the Government of the Republic of Macedonia, in order to be harmonized. The responsible officers in the branch offices that have fewer agricultural holdings have already entered and updated the data on the agricultural holdings located in their jurisdiction. The people that have done this task currently update the data for the branch offices servicing a larger number of agricultural holdings, in order to have the whole process finished before the commencement of the subsidy campaign for 2011. After the completion of the data entry process, printout forms were submitted to all registered agricultural holdings so that they could confirm the accuracy of the entered data. Because of the time overlap between the subsidy campaign and the electronic data entry, the printout forms will be provided to the managers of the agricultural holdings when they come to the branch office to submit their applications for subsidies.

Regarding the interconnectivity with the other databases, web services have already been prepared to connect to the databases of the Veterinary and Food Safety Administration with respect to the numbers of marked livestock, as well as to connect to AFSARD in order to be able to access the data from SRAC. Currently, efforts are made to connect to the database of the Cadaster Agency in order to be able to access the alphanumeric data for the land parcels.

In addition, the public procurements of the Ministry also include procurements of licenses to use ORACLE databases which are used to run the application for the establishment of SRAC, as well the selection of a company to maintain it.

The connection between LPIS and SRAC has been already established and currently the test database of SRAC is used.

The integration of all databases into SRAC will provide a realistic picture about the overall agricultural production in the Republic of Macedonia as well as possibilities to analyze the attained results from the implementation of the financial support measures. At the same time, the ministry has control over the payment of the subsidies to the agricultural holdings, as well as over the influence they have over the increase of production and the overall development of the agriculture sector.

So far 110 people have been engaged to enter the data into SRAC. They were trained last year. So far, all users of financial support measures from the Programs for MAFWE have been registered, or about 100,000 agricultural holdings.

2.2 LPIS – Land Parcel Identification System

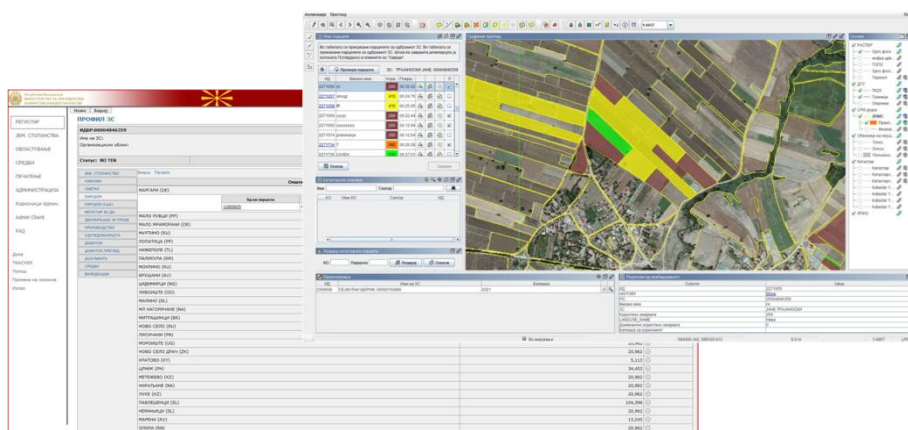
The development of a comprehensive GIS reference system for land parcel identification, which will form the core of the Integrated Administration and Control System (IACS) for payment of subsidies, is stipulated in article 17 of the Regulation of the Council of EU 73/2009 (abolished Regulation 1782/2003). These provisions as well as Regulation of the Council of EU 1122/2009 (abolished Regulation 796/04) define, in detail, all of the elements of the system. These regulates state that the land parcel identification system shall be based on computerized Geographic Information System techniques, including aerial or spatial orthophoto images at scale 1:10,000 (or preferably 1:5,000 in accordance with EU regulation 1593/00). These digitalized mapping features will be used as a base for the layers of data that define the use of agricultural lands based on various points of reference (cadastral parcel, land blocks, arable agricultural surface are, planted agricultural crop). All of these activities related to the establishment of the system will commence depending on the completion of the digitalized and processed orthophoto image of the entire territory of the Republic of Macedonia. This image will be taken through aerial photography during favorable weather conditions.

According to the action plan adopted by the Government of the Republic of Macedonia in 2008, the following activities have been implemented:

1. September 2009 – January 2010, production of digital orthophoto maps, Digital Terrain Model – DTM and initial LPIS data;
 - Pixel size 0.5 m, appropriate for an orthophoto map at scale 1:5000;
 - Accuracy of the orthophoto map of $\pm 1.5\text{m}$;
 - Vertical accuracy of the DTM of $\pm 2\text{m}$;
 - 24 bit RGB (red, green, blue) orthophoto maps and 24 bit infrared (CIR) orthophoto maps;
 - Digitalized physical boundaries of the agricultural land on the whole territory of the Republic of Macedonia;
 - Photo interpretation and digitalization of the orthophoto map based on clearly visible permanent boundaries;
 - Every polygon of agricultural land is marked according to the purpose of use;
2. January 2010 – March 2010, control of the quality of obtained data;

- Verification of the overall status of the submitted data;
 - Radiometric control of the quality of the aerial images and the orthophoto maps;
 - Geometric control of the DTM, including the orthophoto maps:
 - o Characteristics of a specific sample;
 - o Verification of the accuracy by selecting points and referencing them to control points;
 - o Calculation of the result;
 - Visual verification of the quality of the orthophoto maps and the DTM;
3. 2009 - 2010, procedure for equipping the department for LPIS (Infrastructure solutions – HW and SW);
- Procurement of ArcGIS software;
 - Procurement of hardware equipment;
4. 2009 - 2010, strengthening of the staff of the LPIS department;

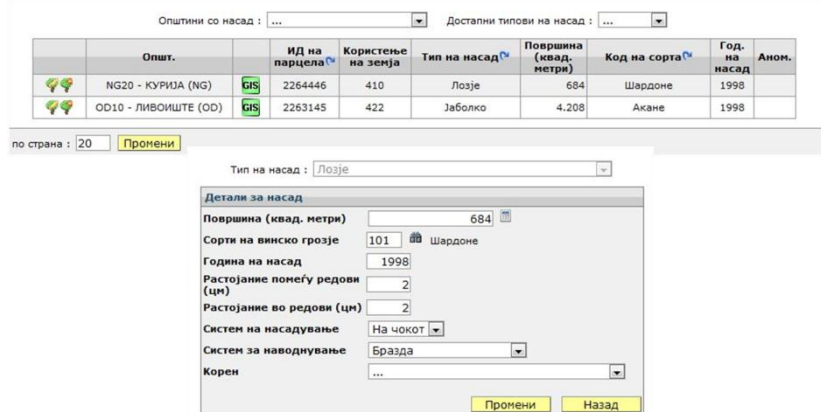
The LPIS software application has been implemented. The application testing is ongoing and the production version of the LPIS application is expected to start functioning at the beginning of April 2011. The integration between the register of agricultural holdings and LPIS has been completed and the necessary web services have been developed. The manuals and procedures necessary to use the LPIS application have been developed and the required trainings of trainers have been implemented.



Register of agricultural holdings and LPIS register

The necessary cadastral data (cadastral maps, administrative and cadastral municipalities, digital orthophoto maps from 2004, etc.) have been already integrated in order to help the process of implementation of LPIS. Part of the LPIS application is a tool called “Client Administrator” which enables the Helpdesk Unit to remotely control the work of the end users.

The registers of multiyear crops (grape, fruit, olive, nut register) have also been integrated within LPIS, including detailed information for each register, such as surface area, varieties, planting year, distance between the rows and between the individual plants within a row, irrigation systems etc. The attribute data in the Multiyear Crop Register will be entered independently from the attribute data in the LPIS software, while the polygons digitalized in the LPIS software will be used for graphical presentation.



Register of Multiyear Plants

The implementation of the third phase of the establishment of LPIS is planned to commence in the second quarter of next year. The implementation of this stage of the creation of LPIS will involve three different institutions, i.e. the Ministry of Agriculture, Forestry and Water Economy, the Agriculture Extension Agency, and the PE "Makedonski shumi". The third stage of the creation of LPIS comprises trainings for operators, consultations with farmers and implementation of a media campaign throughout the country. The department responsible for the LPIS project, began planning and implementing these activities by the end of August this year with support from IPA2008, LPIS/IACS.

2.3. AMIS – Agriculture Market Information System

The broader goal of the Agriculture Market Information System is continuous monitoring and provision of a transparent overview of the agricultural production through the movement of prices on the food markets as well as collection and processing of market data about the products and trading quantities.

The timely and relevant data from the markets should provide support in the process of decision making and formulation of agricultural policy and they should also strengthen the position of the national agriculture sector on the domestic and international markets.

The creation of the AMIS department in 2008 within the Agriculture Policy Analysis Sector, has created the basic requirements for the establishment of the Agriculture Market Information System - AMIS.

According to the action plan, the AMIS will be realized in three stages.

The activities planned for the two stages have been completely realized. These activities include: identification and inclusion of all the groups and subgroups of agricultural and food products in the system, determination of the representative markets according to the EU regulation and selection and training of reporters responsible to submit market data. What remains to be done is the third and last phase which entails the establishment of on-line market data entry, automatic software data processing and data dissemination. This phase will also include adaptation of the information about the movement of prices of agricultural products according to the standards for classification and the requirements for regular reporting to the DG – Agri of the European Commission.

Pursuant to the provisions of the Law on Agriculture and Rural Development, the AMIS department prepared the bylaws related to the product subgroups, representative markets and types of prices. This secondary legislation is harmonized with the Law on Quality of Agricultural Products, and this enables monitoring of prices according to the market standards by classes of products in accordance with the EU regulations.

The data refer only to the representative markets. The data are submitted by the business entities in accordance with the scope of trade with appropriate products that have broader regional or national significance in the formation of the market price.

The data from the livestock markets, the wholesale markets and the green markets are collected by the staff in the Branch Office of the MAFWE directly from selected enterprises – processors and traders of fruit, vegetables, mills, slaughter houses, dairy factories, wineries, tobacco purchasers and traders with basic agricultural inputs, eggs, poultry meat, oil yielding crops and organic products.

The AMIS department prepared methodologies for data collection for product groups. In addition it formed internal procedures regarding the system activities related to collecting, storage and processing of market data, preparation of reports and dissemination of data.

Weekly and monthly reports are made available to the public through the website of MAFWE (www.mzsv.gov.mk) and in the specialized magazine of the Macedonian farmers "My Land".

According to the obligations arising from the Law on Quality of Agricultural Products, the plan is to include several direct data submitters – legal entities and to officially cooperate with them by signing agreements for data exchange.

We have begun the preparation of an on-line software system for entering, processing and publication of data in the AMIS system. The system has three levels of users, i.e. first level - level of reporters with limited access, second level – system administration and management, verification of the quality and accuracy of the entered market data and a third level – level of users, and there is open access to the data for all users.

During 2010 the system received some hardware support which enabled system communications between the level of reporters and the level of users.

For the purposes of improving the quality of data, a plan has been prepared and approved by the World Bank. The plan involves continuous training of the reporters that submit market data to the AMIS system. These training will be implemented during 2011. The plan for the training involves all reports – submitters of data in the

system. The trainings will focus on the establishment of business partner communication, improvement of the quality of data subdivided by product classes, as well as time management during the submission of data.

The AMIS department actively cooperated in the realization of the activities and the achievement of the envisioned goals of the Project "Common Agricultural Policy with Emphasis on the Common Market Organization" financed by the European Commission, with a view of strengthening the capacity of the agriculture market information system.

The cooperation and the benefits from the project comprise common verification of legal acts, assessment of the potential for practical implementation in reality and the related effects, recommendations for adaptation and harmonization with the EU regulations.

Organization of diagnostic field research for specific groups of products, organization of workshops in aimed at supporting particular product groups or market organizations and implementation of market standards for specific products in the system for using prices and forecasting of prices when selling the products.

The AMIS department, within the Agricultural Policy Analysis Sector, also performed activities on international level, with active participation in the realization of the idea to form a regional MIS (Marketing Information System) in order to link the market systems of the Balkan countries. The initiative was supported and lead by the US Department of Agriculture. We are in the process of signing a memorandum, and an agreement for the formation of the common system.

2.4 Farm Accounting Data Network (FADN)

The Farm Accounting Data Network (FADN) represents a central component of the agricultural information system (AIS) managed by the *acquis communautaire* of the European Union.

The data provided through FADN are used for the annual determination of the income of agricultural holdings within the scope of a larger research, business analysis of the agricultural holdings and an evaluation of the planned modifications of agricultural policies.

The agricultural economies are selected to participate in the research based on a selection plan. The research does not cover all agricultural holdings. It covers only those that, according to their size, can be considered to be commercial. The applied methodology aims at providing representative data in the following three dimensions: region, economic size and type of agricultural company.

Upon recommendations from the European Commission, the "Law on Establishment of a Farm Accounting Data Network" ("Official Gazette of the Republic of Macedonia" no.110/07) was changed. These changes and additions will help achieve full harmonization with the Regulations of the European Union. The changes and additions to the "Law on Establishment of a Farm Accounting Data Network" are expected to become legally effective in May 2011.

The changes and additions to the "Law on Establishment of a Farm Accounting Data Network" define the types of data to be collected, the participation of the agricultural holdings and institutions included in the system, as well as the method for collection, processing and use of the accounting data.

The legal framework for FADN will be completed with the preparation of the Rule Book on the Scope and Method for Collection of Accounting Data. This Rule Book is planned to be enacted in September 2011.

According to the action plan, in 2010, activities were realized that contributed to the establishment of an effective and functional farm accounting data network which was highly harmonized with the relevant national and EU regulations. In addition, during 2010, cooperation with the European Commission was established, the methodology and procedures for collection of structural data from farms for 2011 was prepared, the questionnaires for selection of farms for 2011 were prepared, the calculations of the standard results from the 2010 data were prepared, the basic control tests that check the accuracy of the farm data were entered in the system, the visits to the farms were done and the data for 2010 were entered in the system.

In 2011, the plan is to prepare the calculation of the Standard Output (SO) coefficients for 2007. These will be used to prepare the selection plan for 2012 specific for the Republic of Macedonia. The selection of the farms according to the selection questionnaire will be done at the beginning of 2011. The other activities include: holding of a meeting of the National Committee, holding of a two day conference, preparation of the methodology and procedures for collection of structural data from farms for 2012, preparation of the questionnaires for selection of farms for 2012, and upgrading the control tests in the system.

2.5 Agricultural statistics and economic accounts in agriculture

The State Statistical Office of the Republic of Macedonia (SSO) is a national authorized institution that collects, processes, analyses and publishes official statistical data about agriculture, fishing, forestry and water economy. MAFWE contributes its data from the established system for ongoing monitoring of production, trade and services in agriculture for the purposes of creating appropriate support and development policies for the sector. With the development of the modern system for monitoring the status of the sector, MAFWE will be able, for the most part, to encompass all agricultural activities in the economy, and it will also be able to improve the quality of the data collected from this field.

The State Statistical Office of the Republic of Macedonia regularly publishes monthly announcements of the prices of agricultural products as well as the purchase of such products. In addition, there are annual publications with data from the different agricultural subsectors and forestry and the summary data are published within the Statistical Yearbook of the Republic of Macedonia. The State Statistical Office maintains an electronic database containing trade data, as well as a detailed database of the Agricultural Census from 2007. The economic accounts in agriculture are prepared since 1998. The economic accounts are prepared using data from the regular surveys of the SSO, the annual accounts of the Central Registry and data from the MAFWE. The gross value of production includes the production of "small units" and also the production of units produced from activities that are additional activities or hobbies.

3. Associations within the agricultural and food sector (commercial forms of association, organizations of producers, cooperatives, chambers of commerce)

Forming associations in the agriculture and food sector is a prerequisite to the development and promotion of the overall agricultural policy in the EU accession process. Associations achieve better planning of the production, stabilization of production prices, improvement of the concentration of supply and overall sales, bigger competitiveness of the products, increased profits and reduced risks for all participants in the chains of agricultural products.

The oldest form of association in the Republic of Macedonia are the Cooperatives. With the most recent legislative changes (2002) they were transformed into companies and thus lost their role of leaders of the association efforts in the agriculture sector. The growth of the number of cooperatives (about 20) is mainly due to the financial support measures in 2008 and 2009.

The agricultural associations are registered in accordance with the Law on Civil Associations and Foundations (1998 and 2007). As nongovernmental and non-profitable organizations they do not have the right to engage in trade or production, but they can establish legal entities or companies for these purposes. About 250 agricultural associations have been registered so far with more than 30,000 members. The agricultural associations, as organizations of individual farmers, represent their common interests, including extension services and education, as well as their interests with respect to marketing, storage, packing etc.

The highest organizational form of the association of farmers is the Federation of Farmers of the Republic of Macedonia (FFRM), established in 2002. It unifies most of the agricultural associations (about 80) and their regional branch alliances, through its 4 regional centers in Gostivar, Kochani, Strumica and Bitola. Since January 2008, they are publishing their own specialized magazine for agriculture and rural development "My Land" in Macedonian and Albanian language.

FFRM aims at protecting the social and cultural interests of the farmers and to work on improving the conditions for market production. To achieve its objectives, the organization cooperates with domestic and international nongovernmental organizations, governmental institutions on local and national level, as well as educational business entities, that contribute to and have an impact on the conditions for development of sustainable and profitable agricultural production, the conditions for the development of rural areas and the quality of life of the farmers. In order to improve the democratic operations and networking, the FFRM formed a network of women farmers and a network of young farmers.

The Federation has an official representative in Brussels, in the EU. This representative provides a firm and efficient direct link between the representatives of farmers and the important structures in EU. Furthermore, the representative has an impact on the raising of the awareness about the significance of the EU functions for the process of accession of Macedonia into the EU, with respect to agriculture and rural development. The representative also helps the employed and elected representatives of FFRM to assess the strengths and weaknesses of the future EU membership.

The chambers of commerce (national, regional or branch) are forms of association of commercial entities, which have recently taken an active participation in the formulation of agricultural policies. Their

members are usually firms involved in primary production, processing, marketing, and export-import of agricultural and food products.

4. Policies for Joint Regulation of Markets (JRM)

Regarding the Joint Regulation of Markets (JRM) of **agricultural products**, MAFWE prepared a Law on Quality of Agricultural Products for the most significant products, selected on the basis of their importance and share in the overall agricultural production in the Republic of Macedonia, and regulated such products within the broad framework of JRM.

In this context, the following plants and plant products (**cereal crops and rice, dried livestock fodder and fresh fruits and vegetables**), as well as animal products (**beef, eggs and poultry, pork, mutton and goat meat, milk and dairy products and honey and other bee products**) are regulated within the Law on Quality of Agricultural Products, especially with respect to *the establishment and control of market standards, informing consumers and the overall product marketing and the market information system*.

The Law on Quality of Agricultural Products was adopted and published in the "Official Gazette of the Republic of Macedonia" no 140/10.

The Law on Quality of Agricultural Products, with respect to **market standards** and the overall **marketing** of agricultural products, envisages, through bylaws, to fully regulate the markets of: cereals and rice (6 bylaws); animal fodder (3 bylaws); eggs and poultry (6 bylaws); fruit and vegetables (5 bylaws); honey and bee products (3 bylaws), mutton, goat meat, pork and veal (8 bylaws); milk (6 bylaws). All of these bylaws will be enacted by the end of 2011.

In addition, the Rule Book for Determining Representative Markets of Agricultural Products and the Type, Scope, Time Periods and Reporting Entities ("Official Gazette of the Republic of Macedonia" no. 79/09) has been upgraded taking into account the recent developments regarding JRM, achieved with the adoption of the Law on Agriculture and Rural Development ("Official Gazette of the Republic of Macedonia" no. 49/10) and the Law on Quality of Agricultural Products ("Official Gazette of the Republic of Macedonia" no. 140/10), especially with respect to the introduction of new market standards for agricultural products and relevant categories and classes.

A large part of the **horizontal aspects of JRM** relevant to the different markets of agricultural products, are regulated within the Law on Agriculture and Rural Development ("Official Gazette of the Republic of Macedonia" no. 49/10).

Namely, with a view of **promoting market relations**, i.e. a more uniform distribution of revenues within the food supply chain, as well as reducing the tensions within the contractual relations between the stakeholders in the food supply chain, in addition to the basic principle and methods of trading agricultural products regulated in the law, there are also many accompanying regulations based on the law and these regulations regulate the basic conditions for trading agricultural products (conditions that have to be fulfilled by the purchasers and the purchasing facilities of agricultural products, management of data on planned and realized purchases, as well as the establishment of records and registers of purchasers and importers of agricultural products and the their operations).

In addition, in order to improve the relations in the sector, 5 bylaws have been adopted. The aim of these bylaws is to regulate **the partnerships** in the agriculture and rural development sector, i.e. the methods and modalities for cooperation with the nongovernmental sector, primary producers and the agricultural business community, by establishing the forms of **vertical integration** of stakeholders in the agriculture and food sector, as well as sub-sector standing groups. (similar to the advisory groups that function within the EU pursuant to the Decision of the Commission from the 23rd of April 2004).

Finally, the accompanying regulations that regulate the forms of **horizontal association** of agricultural producers, **organizations and groups of producers** (OP and GP) are harmonized with numerous acts within EU legislation and are in the final stage of adoption. They completely regulate the principles and conditions for establishment of OP and GP in the field of agriculture and rural development, their operational programs and programs for quality improvement, as well as the measures for support and stimulate the producers to become members of OP and GP.

Regarding **specialized crops** and between the two meetings of the Subcommittee for Agriculture and Fishing, in accordance with the recently modified Law on Wine ("Official Gazette of the Republic of Macedonia" no. 50/10), several (9) bylaws were adopted with a view of further harmonization of the national legislation with the EU acquis with respect to JRM for wine in the area of sampling and analysis of wine, management and maintenance of the registry of surface areas planted with grapes and the conditions for wine production.

In addition, as a result of the ongoing technical consultations regarding wine, between the Republic of Macedonia and the EU, for the purpose of furthering the harmonization of the national legal framework with the acquis of the EU in the field of appellations of origin and the traditional wine labels, changes and additions to the Law on Wine have been prepared and these changes and addition are currently in parliament for adoption. These changes and additions will reflect the recent changes in the legal framework of the EU regarding mutual recognition and protection of appellations of origin and traditional names for wine and wine products. This will contribute to the successful conclusion of the technical consultations, exchange of the lists of appellations of origin and geographic labels and traditional names for wine and the signing of the new Wine Protocol between the Republic of Macedonia and the EU, by the end of 2011.

With a view of increasing the reputation of the Macedonian wines on the foreign markets a promotional campaign was realized in 2010. The campaign was organized as a public – private partnership between the MAFWE and the wineries and it encompassed existing as well as potential new markets for Macedonian wine, including some EU member states (Poland, Netherlands, and Sweden). Based on the positive experiences and results from the 2010 campaign, the activities will continue in 2011. For that purpose, MAFWE, within its support programs, allocated a budget of about 1 million EUR for 2011.

From the point of view of **institutional strengthening** and having in mind the previously mentioned legislative activities since the last meeting of the Subcommittee for Agriculture and Fishing, several structures and implementation arrangements in the Ministry regarding these areas were strengthened with a view of strengthening the implementation and management with the policies of JRM.

In that context, the Ministry elaborated detailed information about the recent development of the LPIS, especially its links with the Registry of Grape Plantations, in appropriate parts of the Information for SCAF (items 4.2.4 and 4.2.3). In addition, in order to improve the market relations within the sector, two registries have already been created and have started functioning. Namely, the Registry of Purchasers and the Registry of Importers of Agricultural Products were established by the end of the 3rd quarter of 2010. Since the establishment of the registries and during the last quarter of 2010 and the first quarter of 2011, more than 100 operators dealing with agricultural products have registered in the Register of Purchasers and more than 40 have registered in the Register of Importers.

Regarding the strengthening of the individual sectors / bodies with new human resources, the introductory part of section 4.2 contains an overview of the increased employment as well as an overview of the appropriate trainings implemented in the period between the meetings of the subcommittee.

Finally, several activities related to technical assistance were realized (several activities related to JRM within the TAIEX instrument), while the G2G project from the Dutch bilateral aid, regarding the JRM of eggs and poultry, was implemented successfully. In addition of the last efforts of the Agricultural Sector and Accession Project finances by the Government of the Republic of Macedonia through a loan from the World Bank, with a view of further improving the established LPIS (details provided in section 4.2.4.), the project from the first IPA component “Adoption and Implementation of the CAP Acquis, Especially as it Relates to the Establishment of JRM” from the 2008 program, began implementation in July 2010 and is expected to be finalized until October 2011.

IV. GENERAL CHARACTERISTICS OF THE REPUBLIC OF MACEDONIA WITH AN OVERVIEW OF THE AGRICULTURAL AND FOOD SECTOR

1. Geographic characteristics, climate and population

The Republic of Macedonia is a central Balkan country in southeastern Europe, with a surface area of 25.713 km² and borders four countries: Bulgaria to the east, Serbia to the north, Albania to the west and Greece to the south. The total length of the borders is 850 km. Although a continental land, Macedonia is at the crossroad between to large pan-European transport corridors (corridors 8 and 10) that connect central Europe with the Adriatic, Aegean and Black sees.

According to its societal structure, Macedonia is a sovereign parliamentary democracy. It proclaimed independence from the former Socialist Federative Republic of Yugoslavia on a referendum held on the 8th of September 1991.



Map of the Republic of Macedonia

Macedonia is located between 40°51' and 42°22' north geographic latitude and between 20°27' and 23°02' east geographic longitude. These geographic parameters put the country in the southern part of the moderate zone and on the boundary with the subtropical climate zone, which enables the production of a large number of agricultural crops.

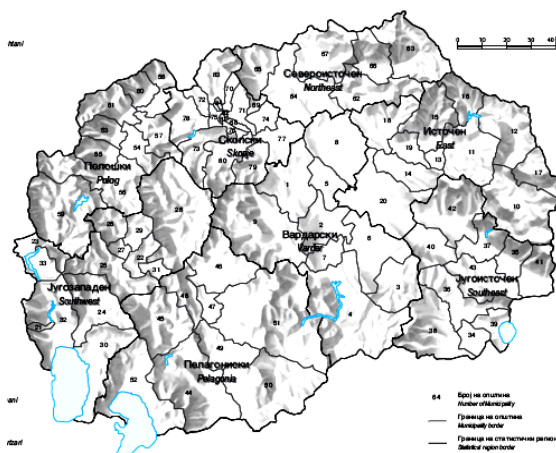
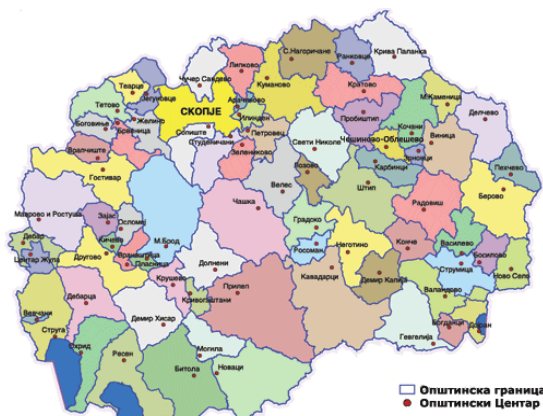
The relief of the Republic of Macedonia comprises mostly hills and mountains with heterogeneous natural conditions and land structure. The hills and the mountains take up 79% of the territory, 19% are plains and the rest are watercourses.

The Republic of Macedonia is mostly under the influence of three climate types: Continental, Mountainous and Mediterranean climate. The climate influences the country to have warm and dry summers and cold and wet winters. The sunshine and temperatures in the country increase from north to south.

The mean annual rainfall in the mountainous regions is about 1,000-1,500 mm, and 600-700 mm in the valleys. The climate indicators such as draught, early fall and late spring frost limit the intensity of agricultural production.

Administratively, Macedonia is subdivided into municipalities, i.e. first order administrative units. In 2004 Macedonia reorganized its territory into 84 municipalities. Ten municipalities belong to the city of Skopje. Macedonia has 34 cities and towns and the total number of inhabited places (cities, towns, villages, settlements) in 2009 was 1,767.

For statistical purposes the Republic of Macedonia is subdivided into 8 regions: Skopje, Pelagonija, Polog, East, Southeast, Northeast, Southwest and Vardar.



Administrative subdivision and statistical regions in the Republic of Macedonia (SSO)

The total population in 2010 was 2,057,284 people. The density of the population in 2010 was 80people/km². The most densely populated region is the Skopje region, with 29.3% of the total population, and the least populated region is the Vardar region with 7.5% of the population. The share of the rural population in the country is 43% and the others (57%) are urban population.

According to the latest population census in 2002, the population of the Republic of Macedonia has the following structure: Macedonians (64.18%), Albanians (25.17%), Turks (3.85%) and Roma (2.66%), and the remaining 4.14% are minority ethnic groups.

2. Macroeconomic framework

The Republic of Macedonia is a relatively small country according to its size and population. Therefore the economy is very sensitive to external and internal factors. Macedonia is very dependent on international movements and that can be seen especially through the economic movements of our main trade partners as well as the neighboring countries.

Macroeconomic indicators

Indicator	Unit	2004	2005	2006	2007	2008	2009	2010
Population ¹	'000	2,032	2,037	2,042	2,045	2,047	2,054	2,057
GDP (in million EUR) ¹	Million EUR	4,324	4,676	5,231*	5,965*	6,720*	6,677	6,905
GDP per capita (in EUR) ¹	EUR	2,128	2,295	2,564	2,919	3,283	3,253	3,360
Share of the agriculture sector in GDP ¹	%	13.2	12.8	10.5	9.1	10.0	9.7	10.6
Economic development ¹ (GDP changes)	%	4.1	4.0	4.0	6.1	5.0	-0.9	1.8
Unemployment rates ²	%	37.2	37.3	36.0	34.9	33.8	32.2	32.1
Inflation (end of period, annually, in %) ²	%	-1.9	1.2	2.9	6.1	4.1	-1.6	3.0
Average foreign exchange rate ²	MKD/EUR	61.34	61.30	61.19	61.18	61.27	61.27	61.51
Share of food, beverages and tobacco in the total household consumption	%	45.4	43.8	43.4	42.5	43.3	40.7	39.0

Source: * ¹SSO (2009-2010), ²NBRM (2010)

Within the past few years, until 2010, the Gross Domestic Product (GDP) was positively changing. This year, the increase of the Gross Domestic Product is lower (0.7%) in comparison with 2009 and is 423,862 million MKD (or 6,905 million EUR). In the past few years, the Gross Domestic Product, using 2008 market prices, was 411,728 million MKD (or 6,720 million EUR) with a real growth rate of 5% in comparison to 2007. However, in 2009 the Gross Domestic Product dropped by 0.9% as a consequence of the global financial crisis, that caused

the drop of the Gross Domestic Product, which, in 2009, amounted to 409,100 million MKD (or 6,677 million EUR).

The average exchange rate in on comparison to the previous year, increased slightly. According to the National Bank of the Republic of Macedonia, the exchange rate in 2010 was 61.51, whereas in 2009 it was 61.27 MKD/EUR.

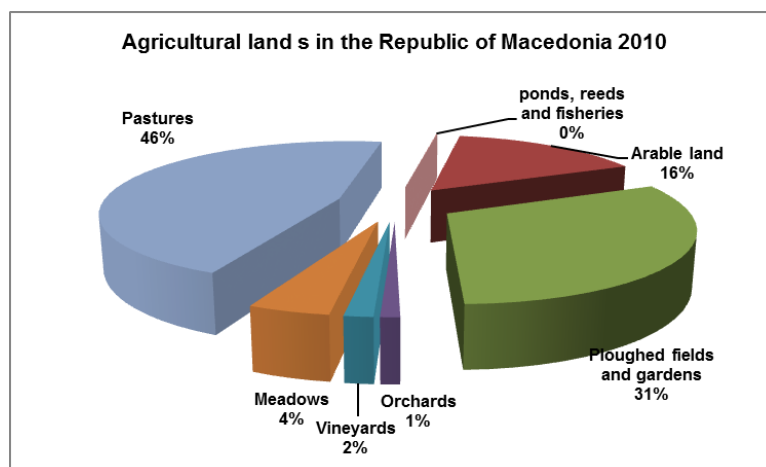
The unemployment rate in 2010 dropped slightly in comparison with 2009, and is 32.1%.

Agriculture together with hunting, forestry and fishing is the third biggest sector according to its share of the GPD (in 2010 it participated with 10.6% in the total GDP), after the service sector and industry, while food, beverages and tobacco participate with 39% in the total household consumption.

3. General situation in the agro-complex

According to the latest data, the agricultural lands (tillable surfaces and pastures) in 2010 comprised about 1.1 million ha or 43.6% of the total surface area, forests comprise about 37% and other remaining 19% consist of water and other surfaces.

About one half of the agricultural land is arable, and the other half consists of pastures. Most of the surface area that is ploughed or tilled is under grains, especially wheat. However, the surface area planted with grains experiences a downward trend on the account of the surface are under wheat.



Generally, in 2010, we experienced an increase of the total agricultural surface areas, in particular the surface areas under pastures have increased by 22.2%, and meadows have increased by 1.7% in comparison to 2009.

Agricultural surface areas (in thousand hectares)

Indicator	2005	2006	2007	2008	2009	2010
Agricultural land	1,229	1,225	1,077	1,064	1,014	1,121
Arable surface areas	546	537	526	521	513	509
Ploughed fields and gardens	448	439	431	424	420	415
Orchards	13	13	13	14	14	14
Vineyards	26	25	23	22	21	21
Meadows	59	60	59	61	58	59
Pastures	682	687	550	542	500	611
Ponds, reeds and fisheries	1	1	1	1	1	1

Source: SSO, 2011

If we look at the different regions, in 2010, pastures predominated only in three regions: Polog (79% pastures), Pelagonija (57% pastures) and southwestern region (51% pastures). The Pelagonija region, although it features more pastures than arable land, still has the biggest share of ploughed fields and gardens than all other regions in the country.

Surface structure in the Republic of Macedonia (in thousand hectares)

Indicator	2003	2004	2005	2006	2007	2008	2009	2010
Total surface area	2,571	2,571	2,571	2,571	2,571	2,571	2,571	2,571
Water surface	49	49	49	49	49	49	49	49
Other surface area	264	310	338	338	504	515	559	441
Forest fund	955	948	955	959	942	943	949	960
Agricultural land	1,303	1,265	1,229	1,225	1,077	1,063	1,014	1,121

Source: SSO, 2004-2011

4. Main characteristics of the structure of farms

The structure of farms in the Republic of Macedonia comprises family farms and agricultural enterprises (which mainly come from the former state owned agricultural and industry companies).

The agricultural census from 2007 is the basic source of data on farm structure. Such a census is planned to be implemented every 10 years.

The agricultural census from 2007 registered a total of 192,675 agricultural households, of which 192,378 are family farms and 297 are agricultural holdings. According to the census, the family farms use 80% of the arable land and the rest of it is state owned.

According to the announcements from the State Statistical Office (SSO) family farms in 2010 used 55.8% of the total agricultural surface area (or 91.5% of the arable land), while the agricultural enterprises use 44.2% of the agricultural surface area (or 8.5% of the arable land). The agricultural enterprises and cooperatives use 74% of pastures and are the biggest users of state owned pastures. The average size of family farms is about 1.7 hectares. The biggest group comprises farms of 0.5 hectares, featuring mixed production structure. This structure is not conducive to effective utilization of the land, and as a consequence the land plots in the Republic of Macedonia are highly fragmented.

4.1. Typology of agricultural holdings

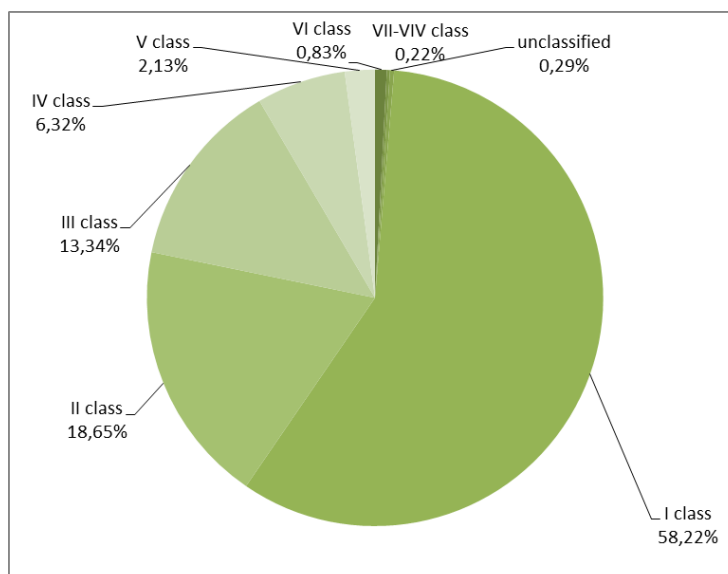
In 2001, the State Statistical Office introduced for the first time the concept of typology of agricultural holdings in accordance with the European regulations no. 1242/2008, which is the single classification of agricultural holdings in the European Union. The classification of agricultural holdings is based on the type of agricultural production and on the economic size of the agricultural company. It uses coefficient of standard production values and structural data from the Agricultural Census in 2007.

Number of agricultural holdings according to the type of agricultural production

Type of agricultural production	Total companies	Individual agricultural holdings	Business entities
Specialist field crops	42,192	42,143	49
Specialist horticulture	15,013	14,995	18
Specialist permanent crops	30,392	30,347	45
Specialist grazing livestock	24,199	24,169	30
Specialist granivores	7,760	7,730	30
Mixed cropping	25,456	25,438	18
Mixed livestock holdings	10,556	10,553	3
Mixed crops-livestock	36,552	36,536	16
Non classified holdings	555	467	88
Total	192,675	192,378	297

Source: SSO, 2011

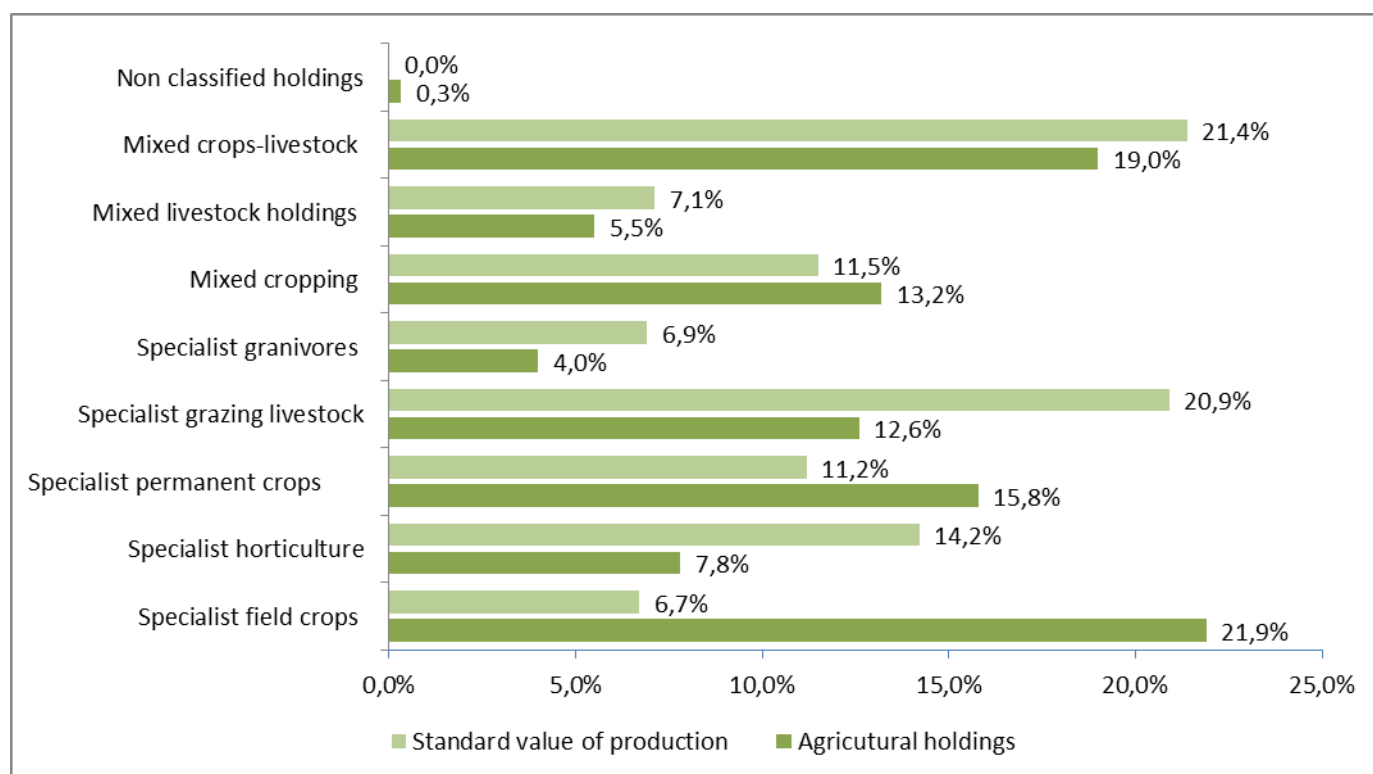
From the total number of classified agricultural holdings, 58.2% are classified as first class – up to 2000 EUR.



Source: SSO, 2011

Agricultural holdings according to the economic size

The individual agricultural holdings participate with 86.9% in the total standard value of production.



Source: SSO, 2011

The percentage share and the number of agricultural holdings according to the agricultural production type, in the creation of the total standard production value

The agricultural holdings specialized for mixed crop-livestock have the greatest share (21.4%) in the formation of the total standard value of production, while specialized field crops have the smallest share (6.7%).

Out of the total 192,675 agricultural holdings, most of them (42,192) are specialized for field crops, while the fewest number of holdings (7,760) are specialized in granivores.

4.2. Structural survey of the agricultural holdings

In accordance with Regulation number 1166/2008 of the EU, the State Statistical Office, for the first time, introduces a structural survey of agricultural holdings during the period from 1st to 15th of June 2010. The structural survey of agricultural holdings is one of the basic statistical surveys in the area of agriculture. It provides comparable data about agricultural holdings. Comparable statistical data about the agricultural holdings are needed in order to determine developmental directions of the agricultural sector and they are a basis for creating proper policies in the area of agriculture. According to the survey data, the total number of individual agricultural holdings is 192,082 and they use a total of 282,830 hectares of agricultural land. The average surface area of agricultural land per holding is 1.47 hectares.

5. Characteristics of rural areas

The available data needed to determine the social and economic characteristics of the rural area in Macedonia are limited and the picture is unchanged.

There is no clear definition of rural areas or of the classification based on population density in the Republic of Macedonia. In 2002, the State Statistical Office and the Ministry of Local Self Government implemented a social and economic mapping of the differences between the municipalities in Macedonia and identified six different zones based on the population concentration: zones with low concentration (to 50 people per square kilometer), zones with medium concentration (51-100 people per square kilometer), overpopulated zones (101 – 150 people per square kilometer), significantly overpopulated zones (151 – 500 people per square kilometer), very significantly overpopulated zones (501 – 1,000 people per square kilometer) and extremely overpopulated zone (more than 1,000 people per square kilometer).

In 2002, almost half (61) of the municipalities were in the group of low concentration, 26 municipalities had medium concentration, 7 were overpopulated, 19 significantly overpopulated, 4 very significantly populated and 6 municipalities had more than 1,000 people per square kilometer.

Development of the population by regions

Region	Total population			Change – Increase 1994-2002		Growth rate	Migration	Population density		Unemployment rate in %
	1994	2002	2010*	Number	%			1994	2002	
National level	1,945,932	2,022,547	2,057,000	76,615	3.94	0.48	-30,992	76.0	79.0	38%
Pelagonija	242,614	238,136	234,000	-4,478	-1.85	-0.23	-5,297	49.7	48.8	18%
Vardar	131,035	133,180	153,900	2,145	1.64	0.20	-1,670	40.7	41.4	13%
Northeastern	163,841	172,787	175,200	8,946	5.46	0.66	-1,557	70.6	74.4	8%
Southwestern	211,226	219,741	221,800	8,515	4.03	0.49	-6,191	64.2	66.8	4%
Skopje	545,228	578,144	604,300	32,916	6.04	0.73	243	314.6	333.6	1%
Southeastern	168,481	171,416	173,000	2,935	1.74	0.22	-4,743	64.8	66.0	36%
Polog	281,982	305,930	315,400	23,948	8.49	1.02	-8,472	116.8	126.7	10%
Eastern	201,525	203,213	179,700	1,688	0.84	0.10	-3,305	48.3	48.7	12%

Source: SSO, census 1994 and 2002, *SSO yearbook, 2011

The social protection infrastructure in the rural areas (kindergartens, schools, public buildings, libraries, clubs) was developed in the past, but in most places such buildings are in a very poor state, without any possibilities for repairs and some buildings are abandoned.

Most of the population in rural areas, especially those from the high mountainous buildings, lack basic healthcare services, including primary healthcare services.

In the Republic of Macedonia, the total number of people in 2010 was 2,057,284 people and the population density in 2010 was 80 people / km². The most densely populated area is the Skopje region with population density of 329 people / km² and with a total of 604,298 people, while the least populated region is the Vardar region (33.9 people / km²) with a total of 153,880 people. About 43% of the population lives in the rural areas distributed over 86.7% of the total land area, and the remaining 57% is urban population. Most of the villages are either being depopulated or have very few people and, considering the unfavorable age structure these places are at risk of losing all of their people. However, there are significant differences even between these municipalities.

Some rural municipalities are even more densely populated than the municipalities in the city, such as Arachinovo (400 people/km²), Bogovinje (211 people/km²) and Vrapchishte (161 people/km²). On the other hand, there are rural municipalities where the population density is 5 people/km², such as Novaci, and 8 people / km², such as Drugovo. If we consider a regional cooperation, then we can conclude that the least densely populated region is the Vardar region (33.9 people / km²).

The population in the Republic of Macedonia still experiences a positive growth, although at a reduced rate. The natural growth of the number of people in 2009 was 4,624 people, while, for 2010, it has been estimated at 5,183 people. The net population growth rate in 2009 in comparison to 2008 was 0.33%, and in 2010 in comparison to 2009 the net population growth rate was 1.22%.

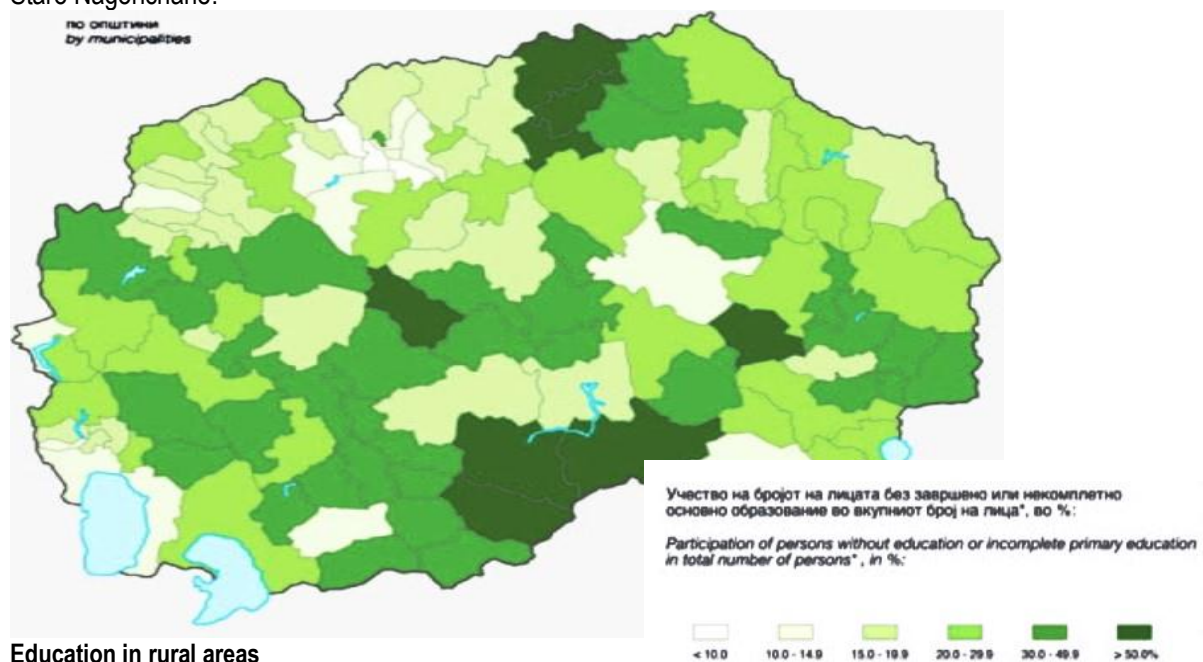
The average age of the population in Macedonia is approximately 37 years of age, and almost 70.8% of the people are at a working age (between 15 and 64).

In 2010, the share of the young urban population (15 – 24) is 18% of the total population in urban areas, while the share of the population older than 65 years of age is 13%. The share of young population (15-24) in rural areas (15-24) is 21% of the total rural population, and the share of the population over 65 years of age is 11%.

5.1. Education in rural areas

The education system certainly plays an important role in the capability of the young people to value local products and local traditions. The quality of education and lifelong learning can narrow the gap between the urban and rural areas, which is rather wide in Macedonia. Small farmers (especially in the underdeveloped areas) have the lowest educational and professional level among the agricultural producers. In addition to the formal secondary and tertiary education, the country lacks additional (informal) education and training for farmers. There are limited media programs (radio and TV) regarding agriculture. Still, there is some improvement in the field of information provision through websites (all official national websites that provide useful information for the agricultural institutions) and opening of new information blogs. In addition, there is a certain number of programs about local culture and history, especially about the local public resources that can support and improve the quality of life, but there is an increasing trend of campaigns for promotion of more significant rural areas.

According to the census from 2002, only 3.6% of the population is illiterate. The share of illiterate men is 1.7% while 5.5% of the women are illiterate. The number of people without any education in 2002 was 67,358 or 4.2%, and the number of people that have not completed primary education was 219,507 or 13.8%. Most of the illiterate population is located in the municipalities Novaci, Prilep, Kavadarci, Bogomila, Orashac, Kechevce and Staro Nagorichane.



The low level of education in rural areas can be attributed to: “migration of young people capable of working, lack or insufficiency of education institutions, insufficient care to improve the education of young people, isolation of undeveloped villages etc.”

The education problem is obvious among the unemployed. In 2010, 10.97% of the unemployed had university level education, most of the unemployed (53.8%) had secondary education, and the remaining 35.2% have no skills. 17.9% of the young people (15-25 years of age) is unemployed and it has a 19% share in the total number of unemployed.

5.2. Employment in agriculture and rural areas

The agriculture labor force in Macedonia mainly comprises workers in individual agriculture holdings. Statistically, employment in agriculture is monitored through official data on employment in agricultural companies and food facilities as well as through analyses of household samples – labor force survey or in accordance with the methodological recommendations of the International Labor Organization (ILO) and the recommendations of Eurostat – European Statistical Bureau.

The available statistics does not provide adequate details on employment in rural areas by sectors. Most of the rural population is involved in the agricultural sector (primarily household agriculture) and other activities, if any. Incomes from agriculture have a tendency to be significantly lower than incomes from other sectors and almost half of all agricultural workers are unpaid workers since they are members of the agricultural household.

Employments in agriculture are, for the most part, seasonal. The World Bank Poverty Assessment Report from 2005 concludes that the employments in the agricultural sector serve as a social cushion and help mitigate poverty and unemployment, especially during times with high unemployment rates outside of the farm.

The comparison between solely agricultural households, mixed households (tilling their own land and where at least one member of the family works outside of agriculture) and the households without agricultural plots shows that the mixed households have the biggest incomes, followed by the solely agricultural households.

The non-agricultural rural households are the poorest. The studies have demonstrated a trend towards diversifying the non-agricultural employment, as a result of the economic needs (and to a lesser extent, as a result of the attitudes towards agriculture) and confirm that there is a positive correlation between the income and the number of non-agricultural activities performed by the households.

According to SSO, in 2010 the active population in the Republic of Macedonia amounts to 938.294 people, of which 68% are employed, and 32% are unemployed. The agricultural sector, including hunting, forestry and fishing employ a total of 19.25% of the population. About 100,000 people are employed in agriculture plus about 20,000 temporary farmers and a large number (the precise figure is unavailable) of seasonal workers (especially in the fruit and vegetable sector).

Employment of the population

Description	2006	%	2007	%	2008	%	2009	%	2010	%
Agriculture, forestry, hunting and fishing	114,777	20.1	107,717	18.3	119,749	19.7	116,668	18.5	116,995	19.25%
Extraction of ore and stone	3,861	0.7	5,093	0.9	6,680	1.1	4,253	0.7	4,389	0.67%
Processing industry	123,066	21.6	126,193	21.4	128,953	21.2	126,779	20.1	128,787	19.52%
Power, water and gas supply	15,955	2.8	15,636	2.7	15,516	2.6	15,296	2.4	15,542	2.36%
Construction	43,203	7.6	38,006	6.4	39,381	6.5	40,749	6.5	40,366	6.12%
Trade	73,015	12.8	82,971	14.1	86,553	14.2	96,761	15.4	104,824	15.89%
Hotels and restaurants	19,034	3.3	17,486	3.0	19,117	3.1	21,193	3.4	21,573	3.27%
Transport, storage and communications	30,000	5.3	35,461	6.0	37,726	6.2	38,300	6.1	34,930	5.30%
Financial services	7,081	1.2	9,041	1.5	7,739	1.3	8,654	1.4	10,333	1.57%
Activities regarding real estate, renting and business activities	15,376	2.7	15,909	2.7	16,298	2.7	19,560	3.1	21,038	3.19%

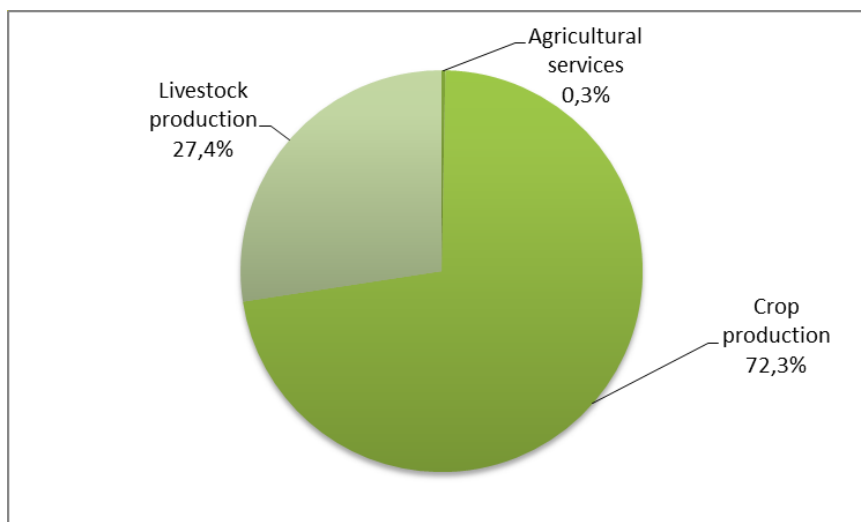
Public administration and defense; mandatory social protection	39,343	6.9	41,409	7.0	42,227	6.9	44,471	7.1	45,915	6.96%
Education	33,394	5.9	34,367	5.8	33,615	5.5	37,433	5.9	39,914	6.05%
Health and social work	32,584	5.7	32,947	5.6	32,906	5.4	35,905	5.7	36,283	5.50%
Other communal, cultural, general and personal service activities	18,290	3.2	24,714	4.2	21,008	3.5	22,133	3.5	26,369	4.00%
Other	1,426	0.3	3,284	0.6	1,547	0.3	1,746	0.3	2,358	0.36%
Total	570,405	100.0	590,234	100.0	609,015	100.0	629,901	100.0	659,5561	100.0

Source SSO, 2010

V. VALUE OF THE AGRICULTURAL SECTOR PRODUCTION

The production accounts of the agricultural production in 2009 amounted to 65,221million MKD. The largest portion of the agricultural production (72.2%) is crop production, while most of the remainder is livestock production (27.5%) and only a small part of 0.3% is agricultural services.

Value of agricultural production at current prices in 2009



Source: SSO (EAA), 2011

If we analyze specific agriculture subsectors, then we can conclude that vegetable products have the most significant share in the value of agriculture production (30.9% in 2009) with a tendency for future positive development. In 2009, cereals and fruits have approximately the same share in the total value of agricultural production (9-11%).

Share of the different products in the value of agricultural production

	2006	2005	2006	2007	2008	2009
CROP PRODUCTS	79.1	78.4	77.0	73.8	68.8	72.2
Cereals (including seeds)	12.1	12.0	9.0	8.3	10.0	9.1
Industrial crops	5.8	9.2	7.3	6.5	4.3	7.3
Fodder crops	10.8	10.3	8.8	6.6	6.6	6.5
Vegetables	28.3	29.0	30.3	28.5	25.8	30.9
Potatoes (including seeds)	3.6	2.9	4.3	2.8	2.1	3.0
Fruit	13.3	11.1	11.9	13.1	12.9	11.0
Wine	5.2	3.9	5.5	8.0	3.9	4.4
LIVESTOCK PRODUCTS	20.7	21.4	22.8	25.8	30.9	27.5
Cattle	3.4	3.2	3.3	3.1	3.6	4.2
Pigs	3.7	3.4	3.2	4.9	4.3	4.41
Sheep and goats	1.1	1.0	2.8	2.0	1.9	2.
Poultry	1.7	1.2	0.8	0.2	1.5	1.0
Milk	7.5	9.5	10.0	12.7	17.6	13.7
Eggs	2.9	2.7	2.5	2.7	1.7	1.7
Other agricultural products	0.4	0.4	0.3	0.2	0.2	0.5
AGRICULTURAL PRODUCTS	99.8	99.8	99.7	99.6	99.6	99.7
AGRICULTURAL SERVICES	0.2	0.2	0.3	0.4	0.4	0.3

Source: SSO, 2007-2011

In 2009, the value of agricultural production is lower than in 2008 by 10.9%. However, it has grown in comparison to the average value of the production during the period from 2005 to 2007. The reduction of the value can be attributed primarily to the decline of livestock production for more than 20%. There is a noticeable growth of the support of the agricultural sector, namely the subsidies in 2009 have increased by 84.4% in

comparison to 2008, and this is an almost fourfold increase in comparison to the period 2005 - 2007. The subsidies have an increasing share in the entrepreneurial income, reaching 11.1% in 2009.

Value of agricultural production in current prices (MKD)

	Description	Average (2005 – 2007)	2008	2009	2009 (2008=100)
1.	Production of the agriculture business branch	64,553	78,061	69,543	89.1
A	Crop production	48,032	52,483	49,104	93.6
B	Livestock production	14,959	24,166	19,266	79.7
C	Product subsidies	802	1,816	3,349	184.4
D	Agricultural services and coupled secondary activities	1,562	1,412	1,173	83.1
2.	Total interim consumption	32,782	40,080	32,259	80.5
3.	Gross value added on basic prices	31,772	37,982	37,283	98.2
4.	Depreciation of the fixed assets	2,678	3,238	3,194	98.6
5.	Net value added on basic prices	29,093	34,744	34,089	98.1
6.	Other taxes on production	67	59	56	94.9
7.	Other subsidies on production	38	176	101	57.4
8.	Income from production factors	29,064	34,861	34,134	97.9
9.	Assets of employees	1,820	2,195	2,531	115.3
10.	Paid rents	/	187	124	66.3
11.	Interest balance	/	-125	-264	211.2
12.	Entrepreneurial income	27,063	32,353	31,216	96.5
13.	Subsidies as a part of the entrepreneurial income (%)	3.1	6.2	11.1	179.5

Source: SSO, 2006-2011; Eurostat, [www](#)

During 2009 there is a notable decline of the price indices, especially for milk (about 30%) and cereals (about 25%) in comparison to 2008. The decline of the price index is reflected as a reduction of the value index for grains, in spite of the increase of production by 5.1%. Milk experienced a 3.5% reduction of the volume index as well. In addition, there are significant volume reductions for wine, poultry and fruit production.

In general, the value of the agricultural branch reduced in 2009 mainly due to the reduction of price indices.

Changes to the scope, price and value of the agriculture production (2009/2008)

Description	Volume index	Price index	Value index
Cereals	105.1	75.2	79.0
Industrial crops	144.0	102.4	147.4
Forage crops	90.5	94.4	85.4
Vegetables	110.4	94.0	103.8
Potatoes	114.8	104.8	120.3
Fruits	72.6	102.0	74.1
Wine	52.1	105.8	55.1
Crop production	95.4	98.1	93.6
Cattle	102.6	97.6	100.1
Pigs	84.6	106.1	89.7
Sheep and goats	94.2	102.6	96.7
Poultry	57.5	99.9	57.5
Milk	96.5	70.1	67.6
Eggs	98.9	90.7	89.7
Livestock production	89.9	88.7	79.7
Agriculture services	75.5	100.1	75.6
Non-agriculture secondary activities (coupled)	80.8	105.1	84.9
Production of the agricultural business branch	97.7	91.2	89.1

Source: SSO, 2006-2011; Eurostat, [www](#)

The value of the interim consumption also declined, primarily as a result of the reduction of both the volume and the price indicators. During 2009, the prices of seeds and seedling materials, the veterinary costs and the costs for maintenance of buildings and plans are stable, while the energy and lubricant costs as well as

the fodder costs have declined noticeably. From a volume point of view, the greatest input reductions occur with respect to pesticides and seed and seedling material.

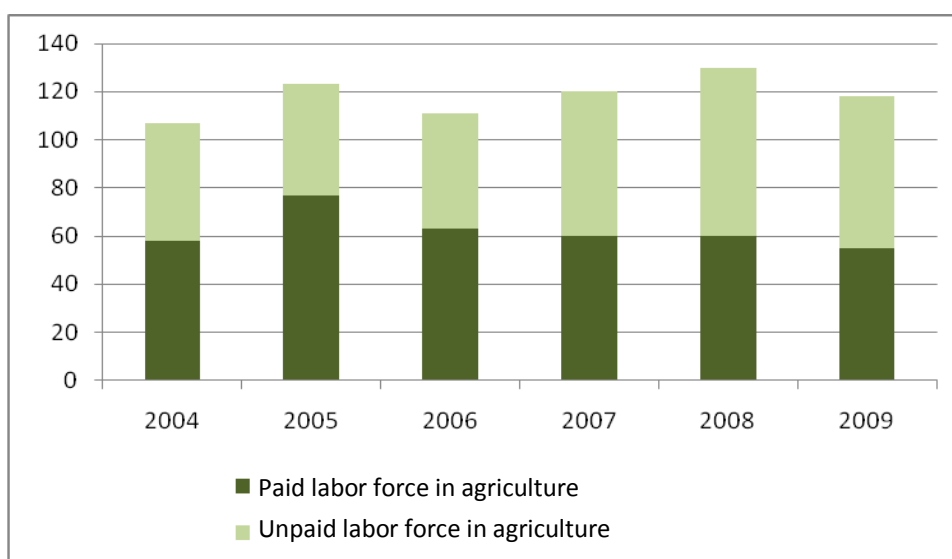
Change of the scope, price and value of the interim consumption (2009/200)

Description	Volume index	Price index	Value index
Total interim consumption	87.1	92.4	80.5
Seeds and seedling material	71.4	100.5	71.8
Energy, lubricants	88.7	81.8	72.6
Fertilizers	89.4	106.8	95.5
Plant protection agents	61.3	103.3	63.3
Veterinary costs	90.0	99.8	89.8
Livestock fodder	90.2	85.6	77.1
Maintenance of plant	98.8	100.3	99.1
Maintenance of buildings	99.5	100.5	100.0
Agriculture services	74.0	102.2	75.6
Other products and services	109.3	102.2	111.7

Source: SSO, 2006-2011; Eurostat, www

The total labor force engaged in agriculture was about 118 thousand working units for the period 2004 – 2009, or the least amount of labor was engaged in 2004 (107 thousand working units per year) and the most labor was engaged in 2008 (130 thousand working units per year). About half of the engaged labor force in agriculture is unpaid. In 2009, there were 63 thousand working units per year of paid labor force, compared to 55 thousand units of unpaid labor force.

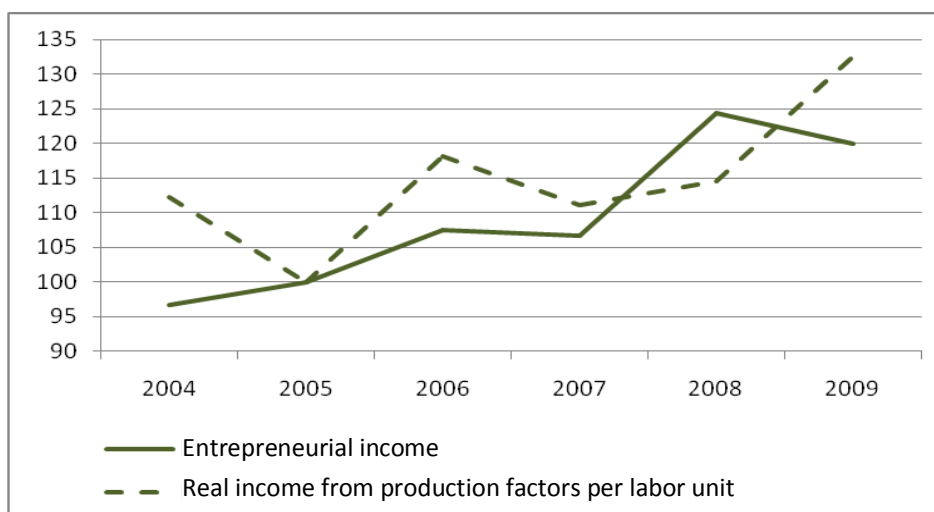
Total labor force in agriculture (1000 working units per year)



Source: SSO, 2006-2011

The entrepreneurial income grew during the period 2004 – 2009 and slightly reduced in 2009. The real income from production factors per annual labor unit follows an upward trend and in 2009 it amounted to 290,369 MKD at current prices, i.e. there is 15.8% increase in comparison to the previous year.

Movement of the entrepreneurial income and the real income per labor units (2005=100)



Source: SSO, 2006-2011

Gross margins of family farms

According to the data from the Farm Monitoring System (FMS) of the AEA, processed by the Faculty of Agricultural Sciences and Food in Skopje, the average gross margin of the sample of family farms in the country, between 2005 and 2009, is 263,952 MKD. The highest gross margins per holding are noted in the Bitola and Skopje region. The Gross margins, on average, range from 36 thousand MKD per holding, for farms smaller than 1 ESU, to about 2 million MKD for farms bigger than 16 ESU.

Average gross margin by region and by holding size (MKD)

FMS region	2005	2009	2005-09	Economic size	2005	2009	2005-09
Bitola	343,510	339,275	343,535	< 2 ESU*	41,820	31,281	36,391
Kumanovo	290,749	209,055	236,700	2-<4 ESU	217,949	203,883	205,626
Skopje	225,583	354,519	293,636	4-<8 ESU	404,442	408,525	397,033
Shtip	181,514	234,214	210,013	8-<12 ESU	718,268	690,238	652,024
Strumica	234,351	163,786	245,405	12-<16 ESU	1,028,509	1,013,140	929,524
Tetovo	209,167	127,104	157,600	> 16 ESU	1,897,208	2,067,265	1,842,297
Average	259,323	259,837	263,952	Average	259,323	259,837	263,952

Source: FASF, 2011.

*ESU is a unit used by EU FADN (1 ESU = 1200 EUR gross margin)

Looking at the surface areas in hectares of used agricultural land, during the period 2005 to 2009, the farms included in the FMS realized an average gross margin of 84,942 MKD/ha.

Average gross margin by region and per hectare (MKD)

FMS region	2005	2009	2005-09	Economic size	2005	2009	2005-09
Bitola	84,655	71,162	89,309	< 2 ESU*	29,268	11,768	19,408
Kumanovo	50,300	31,343	39,165	2-<4 ESU	77,409	80,836	81,562
Skopje	122,335	134,722	102,550	4-<8 ESU	90,826	104,981	95,373
Shtip	95,218	61,463	70,666	8-<12 ESU	101,104	152,343	124,047
Strumica	120,859	83,977	105,757	12-<16 ESU	418,093	71,810	135,512
Tetovo	185,523	116,895	152,315	> 16 ESU	139,641	384,525	164,116
Average	86,406	79,738	84,942	Average	86,406	79,738	84,942

Source: FASF, 2011.

*ESU is a unit used by EU FADN (1 ESU = 1200 EUR gross margin)

With respect to the type of production mostly utilized on the farm, the FMS data indicate the sheep, mixed and vegetable farms have the biggest margin, while the vineyard farms have the smallest margins.

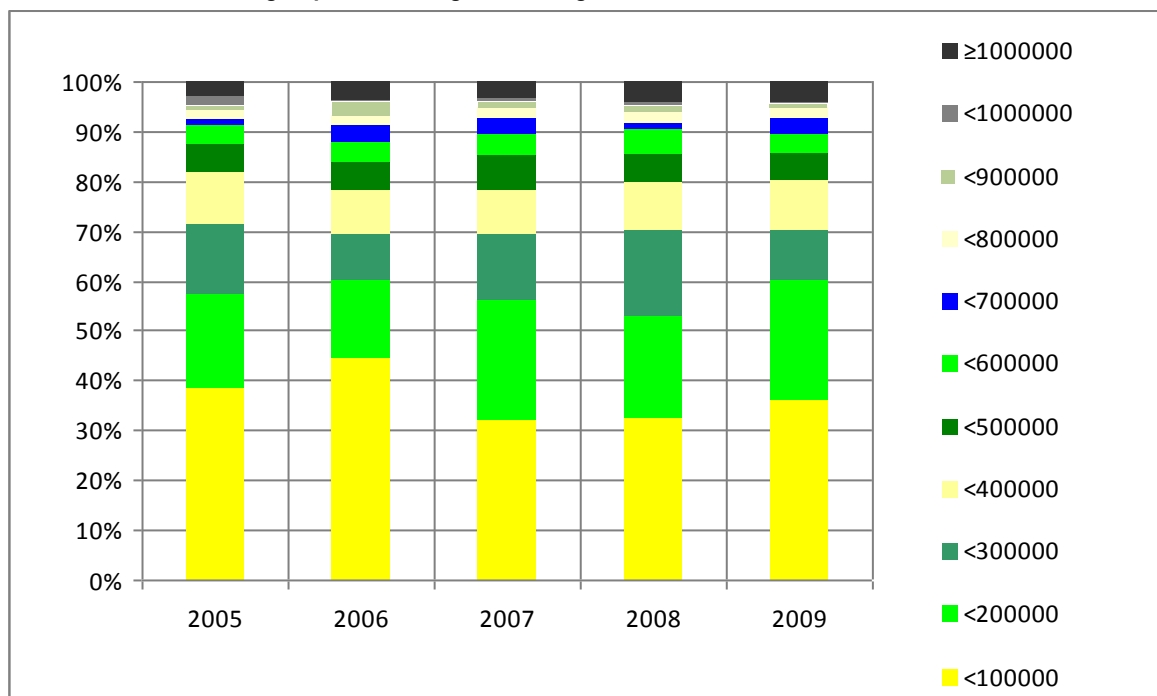
Average gross margin of the holdings, by type of farm (MKD)

Type of farm	2005	2009	2005-09	Type of farm	2005	2009	2005-09
Field crops	66,951	58,349	174,668	Sheep	351,591	605,420	440,743
Orchards	327,938	305,303	313,699	Cattle	276,882	116,715	199,468
Vinyard	176,639	119,775	154,194	Mixed	333,820	440,066	337,958
Vegetables	328,089	304,700	326,993	Mixed livestock	/	322,651	308,444
Mixed crops	192,836	177,324	202,898	Average	259,323	259,837	263,952

Source: FASF, 2011.

The value of the gross margin of the farms in the sample changes over the years. About one third of the farms have a total gross margin of the holding lower than 100,000 MKD, i.e. more than half of the farms have a total gross margin of the holding greater than 200,000 MKD. Only 10% of the farms have a total gross margin of the holding greater than 700,000 MKD.

Number of farms in FMS, grouped according to the margin level



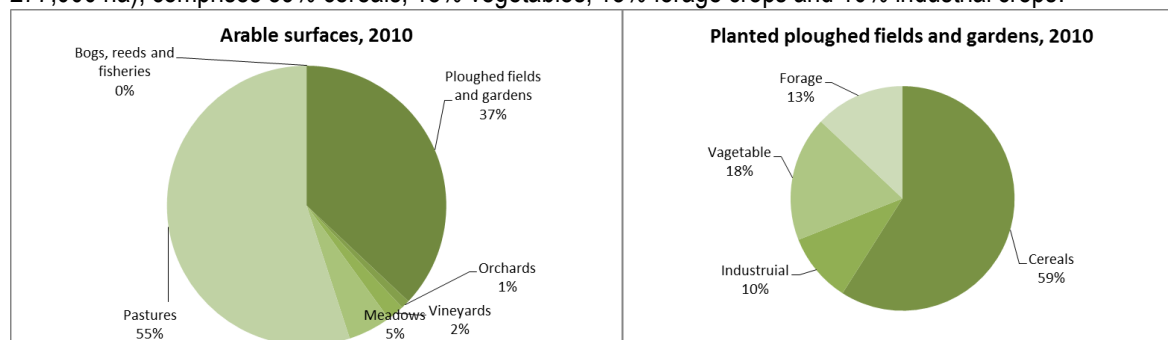
Source: FASF, 2011.

VI. AGRICULTURE PRODUCTION, PROCESSING AND TRADE

The development of agriculture in the Republic of Macedonia will be presented through an overview of the production and trade of agricultural products within the past few years up until now. The overview will also address the processed fruits and vegetables.

1. Crop production

Crop production is broken down into five major groups: production of cereal, industrial, forage and vegetable crops, as well as orchards and vineyards. In 2010, about 67% of the arable land under ploughed fields and gardens has been planted with crops. The structure of the planted ploughed fields and gardens (a total of 277,000 ha), comprises 59% cereals, 18% vegetables, 13% forage crops and 10% industrial crops.

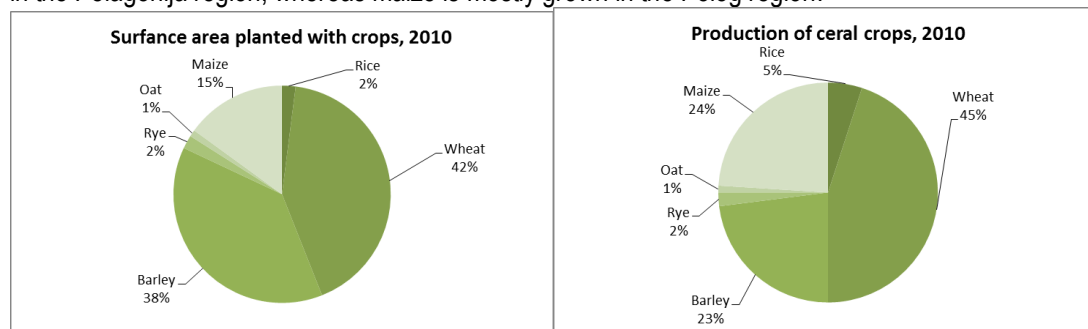


Source: SSO, 2011

The orchards stretch over a surface area of 14,000 ha, while the vineyards occupy about 21,000 ha. When looking at the planted surface area, cereals are in the lead, but still their share in the value of the crop production is only 12.6%. Vegetables have the biggest share in crop production (47%), followed by fruits (15.2%).

1.1. Cereal crops

The cereal crops are strategic agricultural crops in the Republic of Macedonia. Wheat is mostly grown in the Pelagonija region, whereas maize is mostly grown in the Polog region.



Source: SSO, 2011

In 2010, a total of 162,028 ha have been planted with cereal crops. Approximately one half of the surface area planted with cereal crops is planted with wheat. This is followed by barley that occupies 27% of the surface area planted with cereal crops, maize (18%), and the remainder is rye (2%), as well as rice and oat that cumulatively occupy 4%.

The surface area under cereal crops have reduced by 9.7% in 2010 in comparison to the previous year on the account of the increased surface areas under rice. The total production of specific cereal crops is reduced, with the exception or oat and paddy rice.

Surfaces and production of cereal crops in the Republic of Macedonia, 2006-2010

Crops	2006	2007	2008	2009	2010
Planted surface area (hectares)					
Crops	187,880	180,592	176,686	179,421	162,028
Wheat	99,080	91,977	86,890	88,256	79,946
Barley	48,272	48,390	48,753	48,756	42,959
Rye	3,941	4,074	3,928	3,777	3,590
Oat	2,162	2,557	2,876	2,770	2,763
Maize	31,900	31,069	31,582	32,737	28,644
Rice	2,525	2,525	2,657	3,125	4,126
Production (tons)					
Wheat	293,326	218,076	291,719	271,117	243,137
Barley	135,053	106,635	162,779	146,372	126,315
Rye	8,631	6,735	9,912	9,089	8,850
Oat	3,736	3,449	5,289	4,960	5,479
Maize	147,494	118,378	127,125	154,237	129,045
Rice	13,949	15,355	16,140	19,870	25,700
Yields (tons/hectare)					
Wheat	3.0	2.4	3.4	3.1	3.0
Barley	2.8	2.2	3.4	3.0	3.0
Rye	2.2	1.7	2.5	2.5	2.5
Oat	1.7	1.4	1.9	1.8	2.0
Maize	4.6	3.8	4.1	4.8	4.5
Rice	5.5	6.1	6.2	6.4	6.2

Source: SSO, 2006-2010

In general, there are differences in the yields achieved by agricultural companies and by individual agricultural producers in the Republic of Macedonia. This is apparent in the case of **maize** (the yield of individual holdings is 4.3 tons/ha, while the companies achieve a higher yield of 8.4 tons/ha), **rice** (the yield of the individual holdings is 6.3 tons/ha, while the companies achieve higher yields of 4.7 tons/ha) and **barley** (the yield of individual holdings is 3.0 tons/ha, while the companies achieve a lower yield of 2.2 tons/ha).

The **wheat** yields in general are lower in comparison to the EU, as a result of the inappropriate application of agro-chemical measures, usage of uncertified low yield seeds, insufficient soil humidity (inadequate irrigation), inadequate application of agro-technical measures (crop rotation, planting outside of the optimal period etc.) and old machinery for land cultivation, harvesting and transport (which causes losses during harvest and the period after the harvest).

Average yields and prices of wheat in the EU, 2008-2009

	Yield of wheat (ton/hectare)		Price of wheat (€/ton)	
	2008	2009	2008	2009
EU	5.8	5.3	205	129
EU -15*	6.3	6.1	210	139
EU -10**	5.1	4.9	209	120
EU -2***	5.3	3.7	191	112

Source: European commission, 2010

* EY-15 consists of European members states before 2004.

** EY-10 consists of states that became European members states in 2004.

*** EY-2 consists of states that became European members states in 2007.

In 2010, about 38.5% of the produced wheat have been purchased from the domestic producers at an average price of 10.5 MKD/kg; 7.4% of the produced barley have been purchased at an average price of 7.7MKD/kg; 4.4% of the produced maize have been purchased at an average price of 10.5 MKD/kg and 6.3% of the produced rice have been purchased at an average price of 35.4 MKD/kg.

Purchase of cereal crops, 2006-2010

	2006		2007		2008		2009		2010	
	Purchased tons	% of total production	Purchased tons	% of total production	Purchased tons	% of total production	Purchased tons	% of total production	Purchased tons	% of total production
Wheat (including seeds)	132,688	45.2%	94,652	43.4%	92,018	31.5%	138,089	49.3%	93,638	38.5%
Rye	713	8.3%	34	0.5%	2	0.1%	45	-	89	1.0%
Barley (including brewing)	15,965	11.8%	22,118	20.7%	12,394	7.6%	8,546	5.8%	9,445	7.4%
Oat	1	0.02%	2	0.1%	0	0.0%	28	0.0%	392	7.1%
Corn grains (including seeds)	4,575	3.1%	1,171	1.0%	843	0.7%	3,475	1.1%	5,657	4.4%
Rice	959	6.9%	1,237	8.1%	2,432	15.1%	2,847	4.1%	1,627	6.3%

Source: SSO, 2006-2011

In 2010, the expenditures for personal consumption of cereal products averaged about 23,184 MKD per household. Agricultural households consume more grain products than non-agricultural households. An average agricultural household consumes about 710.5 kg of food prepared from cereal products (or 177 kg/household member, if we consider that an average household has four members), and the non-agricultural households consume about 434.7 kg (or 108.7 kg/household member).

1.2. Industrial crops

The industrial crops are predominated by **tobacco** as a very significant labor intensive crop in the areas with less favorable conditions for agricultural production. The share of tobacco in the total surface area planted by industrial crops is 82%. Tobacco is mostly grown in the Pelagonija and the southeastern region. The primary production of the oriental small leafed aromatic tobaccos is very significant for the Republic of Macedonia, since the country is a traditional producer of this type of tobacco. In the past, people used to grow "Virginia" and "Barley" tobacco varieties. Tobacco is also one of the main export products. The Macedonian oriental tobacco, due to its high quality is very much appreciated on the international markets and, together with other tobacco products it is a very significant export product. Today, more than 99% of the total production of tobacco is oriented towards the demands of the multinational companies that have registered companies that purchase raw tobacco and thus provide opportunities to sell fermented tobacco.

In 2010, the individual agricultural holdings achieved a higher yield of tobacco (1492 kg/ha) than the agricultural companies and cooperatives (1000 kg/ha), while the situation was reversed during the previous two years.

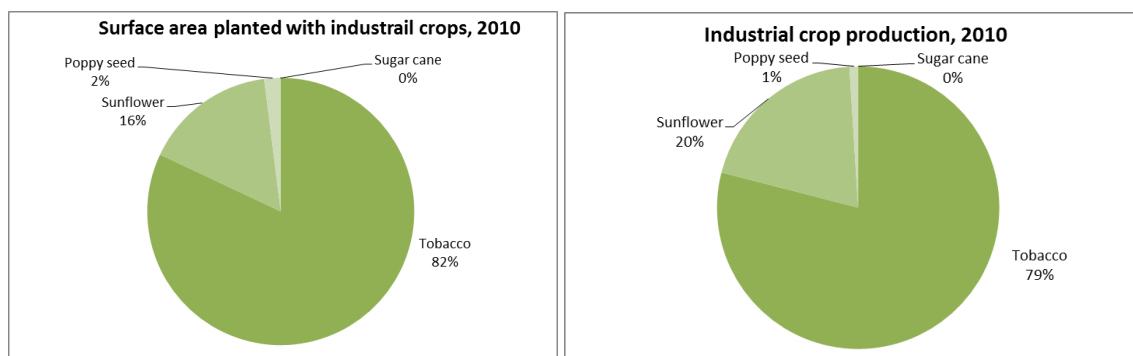
A total of 26,212 tons of tobacco have been purchased from the harvest of 2010, while 20,592 tons were purchased from the harvest in 2009. The average wholesale price is 136.91 MKD per kilogram of tobacco. In addition, the subsidy for the 2010 harvest is 60.00 MKD for a kilogram of tobacco given over to the purchasing tobacco companies.

According to the individual consumption classification, tobacco participates with 2.3% in the structure of the individual consumption of households (calculated using the expenditure method for gross domestic product).

Sales of tobacco, 2006-2010

	Quantities sold (in tons)	Value (in thousand MKD)	Price per kg	Level of final support of sold tobacco (MKD/kg)
2006	24,787	3,107,206	125.36	15.00
2007	20,522	2,374,698	115.71	30.00
2008	16,630	2,507,472	150.78	45.00
2009	20,592	4,109,525	199.57	60.00
2010	26,212	3,588,685	136.91	60.00

Source: SSO, 2011; *MAFWE, 2011



Source: SSO, 2011

According to the agricultural census from 2007, 26,341 individual agricultural households produce industrial crops. Most of them or 46% are located in the Pelagonija region. **Sunflower** is grown on about 16.4% of the total planted surfaced area in the country, and **poppy** occupies 1.7%. **Sugar cane**, which had a downward trend until 2008 because of inadequate policies, low prices and import of unrefined sugar, was not planted at all in 2008, 2009 and 2010.

Planted surface areas and production of industrial crops, 2006-2010

	2006	2007	2008	2009	2010
Planted surface areas (thousand hectares)					
Sugar beet	0.01	0.24	0	0	0
Tobacco	17.50	17.20	17.10	17.81	20.30
Sunflower	3.70	3.70	5.00	4.21	4.06
Poppy	0.14	0.24	0.22	0.62	0.41
Production (tons)					
Sugar beet	0.4	7.9	0	0	0
Tobacco	25.0	22.1	17.1	24.1	26.2
Sunflower	6.0	3.6	5.4	7.8	7.6
Poppy	0.1	0.2	0.2	0.5	0.3
Yield (tons/hectare)					
Sugar beet	59.3	32.6	0	0	0
Tobacco	1.4	1.3	1.0	1.4	1.5
Sunflower	1.6	1.0	1.2	1.9	1.9
Poppy	0.6	0.7	0.8	0.8	0.7

Source: SSO, 2006-2011

Tobacco experienced a significant increase of production by about 6,000 tons. The yields of the other industrial crops were relatively stable.

The production of the main oil yielding crops (**sunflower** and **oil seed beet**) has developed significantly in the last few years, both from the point of view of planted surface areas as well as yields, because of its multipurpose use (cooking oil, oil pies fodder, production of bio-diesel and fodder from oil seed rape). In addition, the oil yielding crops provide opportunities for crop rotation and better utilization of the capacities of the existing processing industry.

Sunflower is mainly grown in the Pelagonija region (50-70%), followed by the Northeastern and the Vardar region. In 2010 sunflower was planted on 4,061 ha which is a 3.6% reduction in comparison to 2009. The sunflower that was harvested from 4,029 ha yielded a total production of 7,592 tons. The sunflower yields in 2010 are the same as in the previous year. The main sunflower producers in the country are the agricultural companies and cooperatives, while only 9% of the total production comes from individual agricultural holdings.

The annual demand for cooking oil is about 25,000 tons, of which only 10% are satisfied from domestic production. The lack of raw material for production of cooking oil is offset with imports of raw oil, which is then refined in several private companies in the country.

In 2010, a surface area of 413 ha was planted with **poppy seeds** and the same surface area was then harvested. A total of 297 tons were produced and the total yield was 719 kg/ha. Poppy (seeds) is produced solely by individual agricultural holdings. Poppy is mainly grown as an autumn crop in the central and southern part of the country. Macedonia, as a traditional producer of opium poppy, according to the international

agreement has the right to grow poppy for production of raw opium in specified quantities. "Alkaloid" – AD Skopje is the only industrial facility that organizes and controls the wholesale of and processing of poppy plants.

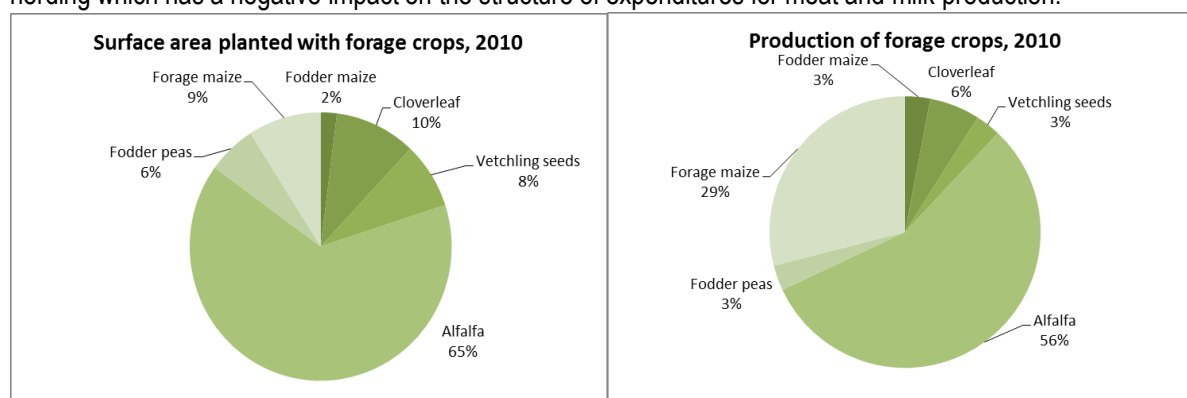
Surface area and production of poppies (capsules), 2006-2010

Year	2006	2007	2008	2009	2010
Surface area in hectares	533,9	534,0	534,0	675,0	654,3
Production of capsules (in tons)	99,4	95,9	119,0	147,0	88,2
Capsules yield in kg/ha	186,1	179,6	223,0	145,5	134,9
Seed yield in kg/ha	617	682	800	867	754

Source: AD Alkaloid - Skopje, 2010

1.3. Forage crops

Forage crops are present only in areas with developed livestock herding. The insufficiency of forage crops and fodder (and hence their high prices) is one of the main factors that limit the development of livestock herding which has a negative impact on the structure of expenditures for meat and milk production.



Source: SAO, 2011

The forage crops in 2010 occupied only 5.8% of the total arable land in the country. This is a very low share in comparison to countries with developed livestock industry where this share is about 40%. One of the reasons for this situation is that there is not enough arable land on the livestock farms and most plots are small and it is not feasible to grow forage crops on small plots.

Alfalfa has the biggest share (65%) of the land planted with forage crops. The other forage crops have significantly smaller share. Hence, the production of alfalfa predominates in the forage crop production in the country.

Forage crops are mainly produced by individual agricultural holdings. Such holdings achieve bigger yields than the agricultural enterprises, except for alfalfa, vetchling for hay and forage maize. The agricultural enterprises have developed new technologies especially for production of vetchling and thus they are able to achieve greater yields than the yields achieved by the individual producers.

In 2010, there was a slight increase of the surface area planted with clover and fodder maize, while the yields of alfalfa and hay vetchling were reduced in comparison to the previous year.

Production of forage crops, 2006-2010

	2006	2007	2008	2009	2010
Harvested surface area (ha)					
Forage crops (total)	28,472	29,294	28,543	29,680	29,730
Cloverleaf	3,618	2,911	2,920	3,011	3,046
Vetchling – hay	2,399	2,418	2,456	2,557	2,447
Alfalfa	18,114	19,369	18,808	19,573	19,408
Fodder peas – hay	1,418	1,312	1,308	1,729	1,829
Forage maize	2,241	2,627	1,825	2,249	2,487
Fodder beet	435	420	479	561	513
Production (tons)					
Cloverleaf	16,951	11,921	12,441	12,684	13,657
Vetchling – hay	10,822	9,461	9,656	10,327	7,792
Alfalfa	125,832	114,130	119,153	126,112	124,145

Fodder peas – hay	6,624	3,662	4,605	5,431	5,863
Forage maize	48,916	62,701	37,144	61,558	64,870
Fodder beet	5,754	5,453	6,270	6,219	5,754
Yields (tons/ha)					
Cloverleaf	4.7	4.1	4.3	4.2	4,484
Vetchling – hay	4.5	4.0	3.9	4.0	3,184
Alfalfa	6.9	6.1	6.3	6.4	6,397
Fodder peas – hay	4.7	2.8	3.5	3.1	3,206
Forage maize	21.8	23.9	20.4	27.4	26,084
Fodder beet	13.2	13.0	13.1	11.0	11,217

Source: SSO, 2006-2011

Forage crops are subject to policy measures primarily aimed at increasing the supply of fodder. Specifically, the measure involves creation of artificial meadows by planting sainfoin on the meadows.

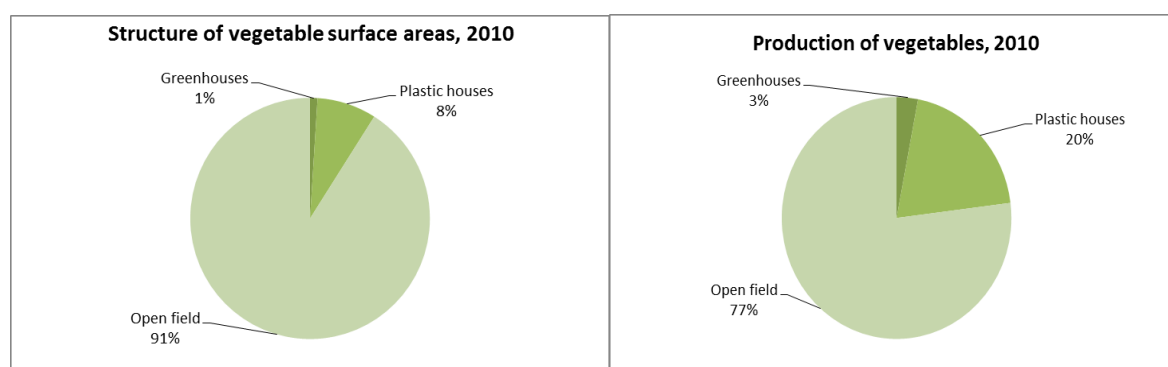
1.4. Vegetable crops

Growing of vegetables is a tradition in the country. Early vegetables in particular are one of the more significant subsectors that offer a solid basis for further competitive development of agriculture. The scope of production of vegetable crops ranges from 800 thousand tons to 1,200 thousand tons, depending on the weather conditions during the year.

Vegetables on the open field are produced mainly in the southern parts of the country with a Mediterranean climate (Strumica, Gevgelija, Valandovo) as well as the eastern and the northern parts of Macedonia (Skopje, Kumanovo, Kochani, Radovich) with moderate continental climate. Vegetable production in greenhouses is highly profitable because of the early harvest in January (one month before the harvest in our neighboring countries), and therefore the products have high prices until April or May.

The climate in the Republic of Macedonia facilitates successful production of several types of vegetables. The most frequent types of vegetables are: potatoes (22%), tomatoes (18%), green peppers (18%), cabbage (16%), watermelons (14%), cucumbers (5%) and onions (5%), and they are produced mainly on open fields (91%). These crops are traditionally produced in the Republic of Macedonia together with the other vegetable crops like: beans, garlic, leak, cauliflower, lettuce, eggplant, carrot, etc. In recent years farmers have started introducing new non-traditional crops like: broccoli, asparagus, Chinese cabbage, etc.

Vegetables are grown mainly on the open field (91%), in greenhouses as well as plastic houses with or without heating. Therefore, the biggest production is achieved in the open field (77%).



Source: SSO, 2011

Potatoes and beans occupy the greatest surface area of all vegetables. These crops are mainly produced by the individual agricultural holdings that also produce significant quantities of green peppers, tomatoes, watermelons and cabbage.

Surface areas and production of vegetable crops, 2006-2010

Vegetable crops		2006	2007	2008	2009	2010
Potatoes (including intermediate crops)	Harvested surface area (ha)	13,598	14,005	13,781	13,893	13,398
	Production. tons	189,867	180,887	189,430	207,153	202,325
	Yield (ton/ha) – without intermediate crops	14.0	12.9	13.7	14.9	15,4
Beans (including intermediate crops)	Harvested surface area (ha)	14,454	13,727	13,621	13,880	13,285
	Production. tons	14,854	10,947	12,800	12,751	12,070
	Yield (ton/ha) – without intermediate crops	1.0	0.8	0.9	0.9	1,2
Cabbage	Harvested surface area (ha)	3,565	3,996	4,147	4,486	4,695
	Production. tons	77,850	86,226	93,876	112,130	149,157
	Yield (ton/ha)	21.8	21.6	22.6	25.0	31,8
Tomatoes	Harvested surface area (ha)	5,642	5,368	5,319	5,731	5,665
	Production. tons	142,387	117,981	121,637	145,395	168,010
	Yield (ton/ha)	25.2	22.0	22.9	25.4	29,6
Onion	Harvested surface area (ha)	3,029	3,131	3,182	3,361	3,544
	Production. tons	33,853	33,524	34,934	41,863	47,432
	Yield (ton/ha)	11.2	10.7	11.0	12.5	13,4
Watermelon	Harvested surface area (ha)	6,466	6,152	6,211	5,977	5,732
	Production. tons	129,564	123,840	129,288	123,939	134,885
	Yield (ton/ha)	20.0	20.1	20.8	20.7	23,5
Peppers	Harvested surface area (ha)	8,313	8,331	8,199	8,438	8,474
	Production. tons	140,905	140,558	141,729	154,771	168,150
	Yield (ton/ha)	16.9	16.9	17.3	18.3	19,8
Garlic	Harvested surface area (ha)	964	1,013	1,003	1,060	996
	Production. tons	3,814	3,754	4,604	5,803	5,015
	Yield (ton/ha)	4.0	3.7	4.6	5.5	5,0
Peas	Harvested surface area (ha)	895	901	963	1,060	1,568
	Production. tons	1,723	1,872	2,448	3,022	2,789
	Yield (ton/ha)	1.9	2.1	2.5	2.9	1,8
Lens	Harvested surface area (ha)	103	102	96	82	72
	Production. tons	86	87	85	69	90
	Yield (ton/ha)	0.8	0.9	0.9	0.8	1,2
Cucumbers	Harvested surface area (ha)	1,430	1,478	1,392	1,351	1,266
	Production. tons	39,320	39,156	40,620	41,494	46,635
	Yield (ton/ha)	27.5	26.5	29.2	30.7	36,8

Source: SSO, 2006-2011

If we compare the total production of vegetables in 2010, which amounted to 936,558 tons, with the production from the previous year, or 847,870 tons, we can conclude that the overall production has increased by 10.46%, except in the case of beans, garlic and peas. Although the annual production of potatoes and beans has reduced in comparison to last year, still their average yield has increased. The average yield of potatoes in 2010 is 3% bigger than in 2009.

Potatoes are mostly spread in the hilly and mountainous regions (Berovo, Kratovo and Kriva Palanka). It is estimated that about 50% are consumed on the household level, while the rest is given to hotels, restaurants and the processing industry. This year the total production of potatoes is 2% lower than the previous year, and including interim crops, it is 202,325 tons.

About 80% of the **tomatoes** are produced in the southeastern and the Vardar regions, i.e. the regions of Strumica, Valandovo, Dojran, Kavadarci, Demir Kapija, Veles and Sveti Nikole. In 2010 the tomato production has increased by 15% in comparison to the previous year because of the increased average yield (5% increase in comparison to 2009).

Green peppers are usually produced in the Strumica, Radovish, Polog, Skopje and Kumanovo regions. The total green pepper production in 2010 was 168,150 tons which is an increase of 8.6% in comparison to the previous years. In addition to producing green peppers that are consumed fresh, peppers are also used in the processing industry (industrial peppers), primarily the pepper type "Kurtovska Kapija" (red pepper used for production of ajvar), which is a highly demanded type of pepper in the processing industry due to its qualities

related to conservation and processing of ajvar. Ajvar is a one of the products with highest demands originating from the Republic of Macedonia. Industrial peppers are produced as late crops.

The **watermelon** production in 2010 has reduced by 8.8% in comparison to 2009, because watermelons were planted on a smaller surface area in comparison to last year, as direct consequences of the problems with the selling of this type of product last year.

Beans are mostly present in the Polog region. The most frequent type of beans is the domestic Tetovo bean, which is also well known outside of Macedonia. The production is mainly intended to be used as intermediate crops in combination with maize. The interim bean crop occupies 40% of the total surface areas under beans. In 2010, the bean production has reduced slightly in comparison to the previous year, and it amounted to 12,070 tons.

In 2010, a total of 3,706 ha of **cabbage** were harvested and an additional 989 as interim crops. The annual production is significant in comparison to the previous year.

Early vegetables are produced in closed or protected areas under glass or plastic sheets, on a total surface area of about 4,048.3 ha, of which about 216.3 ha are installed facilities under glass and about 3,832 ha are under plastic sheets. Early vegetable production in 2010 features a reduction of the surface areas in glass greenhouses, except in the case of mild green peppers and an increase of total production due to increased yields.

Surface area and production of vegetable crops (under glass greenhouses), 2006-2010

		2006	2007	2008	2009	2010
Tomatoes	Surface area (ha)	120.0	121.0	140.6	154.0	148.8
	Production (tons)	12,580	14,960	14,952	12,360	16,464
Cucumbers	Surface area (ha)	42.5	50.4	54.0	55.8	52.7
	Production (tons)	7,100	8,860	9,812	6,748	8,661
Hot peppers *	Surface area (ha)	4.0	2.5	2.5	2.6	1.2
	Production (in thousand pieces)	3,800	2,700	2,500	2,600	1,200
Mild peppers	Surface area (ha)	1.5	3.8	3.8	5.0	10.1
	Production (tons)	75.0	65.0	147.0	62.0	548.0
Cabbage	Surface area (ha)	-	17.0	15.0	19.0	15.7
	Production (tons)	-	850.0	700.0	487.0	660.0

Source: MAFWE, 2006-2010

*The production is expressed in tons, except for hot peppers whose production is expressed in thousand pieces.

Production of vegetables – late crops includes plastic greenhouses production and open field production.² In the case of late crops, in 2010, the production of peppers and watermelons has reduced due to the reduction of surface areas planted with these crops and the reduced yields.

Production of vegetable crops – late crops, 2007-2010

		2007	2008	2009	2010
Tomatoes	Surface area (hectares)	5,280	4,613	4,689	4,917
	Production (tons)	122,795	113,944	109,234	135,548
	Yield (ton/ha)	20.3	24.7	23.2	27.5
Peppers	Surface area (hectares)	6,567	5,980	4,995	4,257
	Production (tons)	108,922	114,040	114,839	82,461
	Yield (ton/ha)	15.2	19.0	23.0	19.4
Industrial pepper	Surface area (hectares)	2,035	2,438	1,958	2,745
	Production (tons)	39,600	46,808	42,048	69,202
	Yield (ton/ha)	15.9	19.2	24.0	25.2
Watermelon	Surface area (hectares)	5,891	5,751	5,560	4,855
	Production (tons)	150,069	132,310	220,640	130,704
	Yield (ton/ha)	23.8	23.0	39.7	27.0

² This refers to harvests after 14th of April of the current year.

Potatoes	Surface area (hectares)	11,060	11,144	11,022	10,664
	Production (tons)	227,868	206,592	211,394	228,865
	Yield (ton/ha)	17.5	18.5	19.2	21.5
Beans	Surface area (hectares)	11,224	9,647	10,743	10,909
	Production (tons)	11,020	10,226	9,142	9,596
	Yield (ton/ha)	0.8	1.06	0.9	0.9

Source: MAFWE, 2006-2010

1.5. Fruit production

Fruit and vine grape production are subsectors with significant potentials, however they are underutilized. The main reasons for this are: uncertain sales and low investments. In addition, the domestic fruit processing industry is relatively small and underdeveloped (without modern technology of production) and the markets for these products are limited.

Fruit is mostly present in the western parts of the country which feature humid weather conditions. The surface area under orchards is 14,000 ha and occupies 2.7% of the total arable land. Fruit is mostly produced by the individual agricultural holdings, with the exception of sour cherries which are mostly produced by the agricultural companies and cooperatives because sour cherries are exclusively used by the processing industry.

Production of **apples** is the main type of production in the fruit sector in the Republic of Macedonia and takes up 63% of the total fruit production. The production of **plums** is second most significant type of production in this subsector and the production of plums increased in 2010 (7.9% increase in comparison to the previous year). Then, **sour cherries** take up about 3% of the total food production, pears 4% and other fruits (apricots, peaches, quinces etc.) take up about 10%. In 2010, the production of plums, cherries, apricots and apples increased noticeably.

The most significant regions for **apple** production are the lake regions (Resen and Ohrid) located at about 700 meters above sea level. Ninety percent of the total quantities of apples in the Republic of Macedonia are produced here. The following varieties of apples are produced: idared (63%), golden delicious (20%), red delicious (10%) and other varieties (about 7%)

The production of apples in 2010 was 121,383 tons and represents an increase of 14% in comparison to last year. Out of the total quantities produced, 85,648 tons were produced in the Ohrid and Prespa regions, and the remaining 35,735 tons were produced in the other regions.

With respect to the apple yields, 2008 is deemed as a very fruitful year judging both by quality and quantity. Out of the total harvested apple quantities, about 70% are first and extra class while about 30% are industrial apples and second class. However, in 2009 the production of apples is smaller even than the apple production in 2007. Still, in 2010 the apple production increased again. About 25% of the total apple production is sold on the domestic markets while the remaining 75% is processed or sold on foreign markets.

Fruit production, 2006-2010

Fruit production			2006	2007	2008	2009	2010	
Number of trees, in thousands	Total	Pears	441	415	403	395	384	
	Fruit bearing		417	382	380	371	366	
Production	Total (tons)		9,728	8,235	8,26	8.313	7.586	
	kg/tree		23	22	22	22	21	
Number of trees, in thousands	Total		Cherries	161	169	171	172	192
	Fruit bearing			151	160	163	164	182
Production	Total (tons)			4,646	4,966	5,631	5.587	5.701
	kg/tree			31	31	35	34	31
Number of trees, in thousands	Total	Apricots		161	149	148	144	150
	Fruit bearing			145	137	137	135	134
Production	Total (tons)			3,561	3,531	3,706	2.95	2.996
	kg/tree			25	26	27	22	22
Number of trees, in	Total		Apples	4,31	4,412	4,512	4.397	4.491

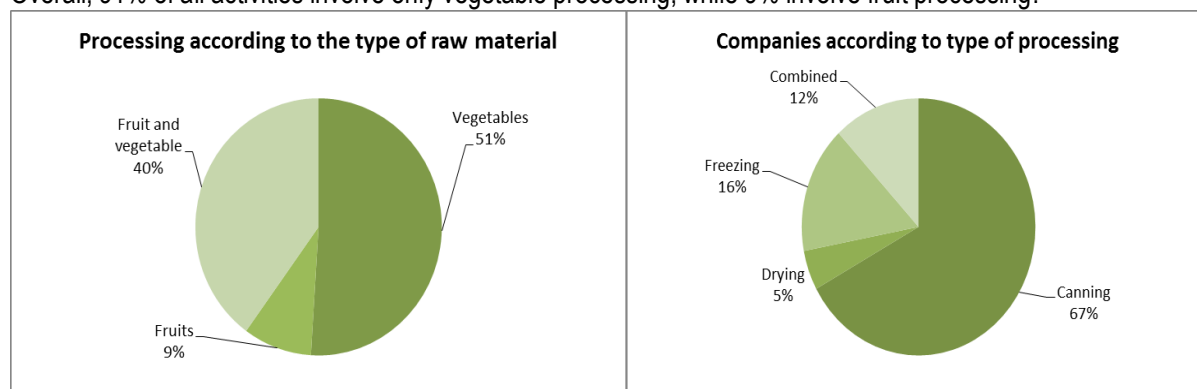
thousands	Fruit bearing		3,803	3,942	4,154	4.049	4.313
Production	Total (tons)		95,826	152,089	174,315	106.356	121.383
	kg/tree		25	39	42	26	28
Number of trees, in thousands	Total	Plums	1,52	1,499	1,53	1.576	1.601
	Fruit bearing		1348	1337	1354	1400	1.438
Production	Total (tons)		29,745	27,773	32,826	35.61	38.431
	kg/tree		22	21	24	25	27
Number of trees, in thousands	Total	Sour cherries	909	1,06	926	1.049	696
	Fruit bearing		765	932	773	804	494
Production	Total (tons)		6,037	7,034	8,832	8.684	5.207
	kg/tree		8	8	11	11	11
Number of trees, in thousands	Total	Peaches	518	478	454	597	505
	Fruit bearing		435	407	405	396	452
Production	Total (tons)		10,532	10,461	11,252	10.266	10.211
	kg/tree		24	26	28	26	23

Source: SSO, 2007-2011

1.5.1. Processing of fruits and vegetables

The processing industry of fruits and vegetables is export oriented (80% of total production) to the EU and other neighboring markets. The information is based on the Study of the Macedonian Association of Fruit and Vegetable Processors (MAP) from 2011.

Although most processing enterprises can process both fruits and vegetables, still the processed quantities of fruit are very low. According to the classification: 22 enterprises process only vegetables (19 in 2009), 4 process only fruits, while 17 enterprises process both groups of agricultural products (20 in 2009). Overall, 91% of all activities involve only vegetable processing, while 9% involve fruit processing.



Source: MAP, 2010

In 2010, the vegetable processing was the dominant activity in 51% of all processing capacities. With respect to the type of processing, most of the processors (or 29 processing facilities) engage in canning, only 2 entities are drying facilities (same as in 2009) and 7 entities are freezing facilities (in 2009 there were 6 freezing facilities), while the other 5 have combined production lines (in 2009, the number of combined production facilities was 7).

1.5.1.1. Buying of raw materials

In 2010, 69.4 thousand tons of raw materials were bought which is a 3.4% increase in comparison to 2009.

Raw materials bought by the processing industry, 2009 - 2010

Raw material	Bought in 2009 (in 1000 t)	% of total	Bought in 2010 (in 1000 t)	% of total
Red peppers	29.7	44.1	32.9	47.4
White peppers	1.0	1.5	1.2	1.7
Bell peppers	0.7	1.1	1.6	2.3
Chili peppers	2.0	3.0	2.1	3.0
Gherkins	2.7	4.1	3.5	5.1
Red beetroot	2.7	4.1	1.5	2.2
Eggplant	3.2	4.8	3.0	4.3
Cabbage	2.9	4.3	2.5	3.6
Carrot	0.9	1.3	0.3	0.4
Industrial tomatoes	4.9	7.3	8.4	12.1
Onions	1.4	2.1	1.3	1.9
Sour cherries	3.2	4.8	2.4	3.5
Plums	0.9	1.3	1.6	2.3
Industrial apples	1.7	2.5	1.5	2.2
Other	9.2	13.7	5.6	8.0
Total	67.1	100	69.4	100

Source: MAP, 2010

In 2010, the industry bought a total of 63.2 thousand tons of vegetable (or 91%) and 6.2 thousand tons of fruit (or 9%) for processing. The red industrial pepper ("Kurtovska Kapija" type), as the most important raw material in the processing industry, has a share of 47.4% in the total quantities of raw materials bought by the processing industry. With the exception of sour cherries, which are in high demand by foreign buyers, the other quantities of fruit bought as raw materials for the processing industry are very small.

The processing capacities bought a total of 22 thousand tons of fresh products directly from the individual producers (or 31.7%) while 35 thousand tons were bought by traders/intermediaries (or 50.7%). The agricultural cooperatives provided the industry with only 1.8 thousand tons or 2.6%, while the other 9.5 thousand tons of fresh fruit and vegetables (or 15.2%) were provided by agricultural companies.

1.5.1.2. Production of processed fruit and vegetables

During the period 2004-2010 the industry experienced a continuous growth of production as a result of the increased demand of foreign buyers for Macedonia products. However, the production dropped in 2009, in comparison to the previous year, mainly as a result of the global economic crisis. That had a negative impact on the domestic processors and resulted in reduced or cancelled orders, late collections of receivables and reduction of the working capital used to buy fresh products for processing as well as other inputs.

In 2010, the processing industry produced 47.6 thousand tons, which is 1.7 thousand tons more than the previous season (or +3.7%). The pepper products have the dominant share in the total production. The main characteristics of the 2010 season were the favorable weather conditions. However the previously elaborated shortcomings did not allow the processing facilities to fully take advantage of the domestic raw material production and to optimize their production plans. The canning component had the biggest share in the overall production of processed products in 2010 (as in 2008 and in 2009). According to the survey, the industrial ajvar was produced the most (21.6% of the total production), followed by: frozen peppers, gherkins, roasted peppers, etc. Production of frozen peppers in 2010 has increased greatly and was 5.3 thousand tons, in comparison to 2.8 thousand tons in 2008.

Production of processed fruits and vegetables, 2003-2010

Year	Total production ('000 t)	Increase in '000 t (compared to previous year)	Increase in % (compared to previous year)
2004	25.7	4.7	+22.4
2005	28.2	2.5	+9.7
2006	43.6	15.4	+54.6
2007	45.1	+1.5	+3.4
2008	54.2	+9.1	+20
2009	45.9	-8.3	-15.3
2010	47.6	+1.7	+3.7

Source: MAP, 2011

Production of processing products by category

Category	Production in 2008 (in tons)	% of total	Production in 2009 (in tons)	% of total	Production in 2010 (in tons)	% of total
Canning	39.805	73,4	39.558	86,1	38.225	80,1
Freezing	14.001	25,8	6.246	13,6	9.275	19,5
Drying	418	0,8	159	0,3	173	0,4
Total	54.224	100	45.963	100	47.673	100

Source: MAP, 2011

Processed products from fruits and vegetables

Name of product	Production in 2008 (in '000 t)	% of total	Production in 2009 (in '000 t)	% of total	Production in 2010 (in '000 t)	% of total
Industrial ajvar	10.1	18.6	10.4	22.6	10.3	21.6
Domestic ajvar	2.6	4.8	2.2	4.8	2.1	4.5
Lutenica (hot peppers)	0.9	1.7	0.9	2.0	0.9	1.9
Roasted peppers	2.2	4.1	3.2	7.0	3.1	6.5
Boiled peppers	2.0	3.7	1.9	4.2	1.2	2.5
Chili peppers	1.9	3.5	1.9	4.2	2.4	5.1
Gherkins	5.0	9.2	3.9	8.4	4.8	10.1
Red beetroot	2.5	4.6	3.3	7.2	2.0	4.2
Ketchup	1.8	3.3	2.3	5.0	2.1	4.5
Mixed salads	1.8	3.3	1.3	2.8	1.1	2.3
Frozen sour cherries	2.3	4.2	1.3	2.8	1.4	2.9
Frozen peppers	8.0	14.8	2.8	6.1	5.3	11.1
Other	13.1	24.2	10.5	22.8	10.9	22.8
Total	54.2	100	45.9	100	47.6	100

Source: MAP, 2011

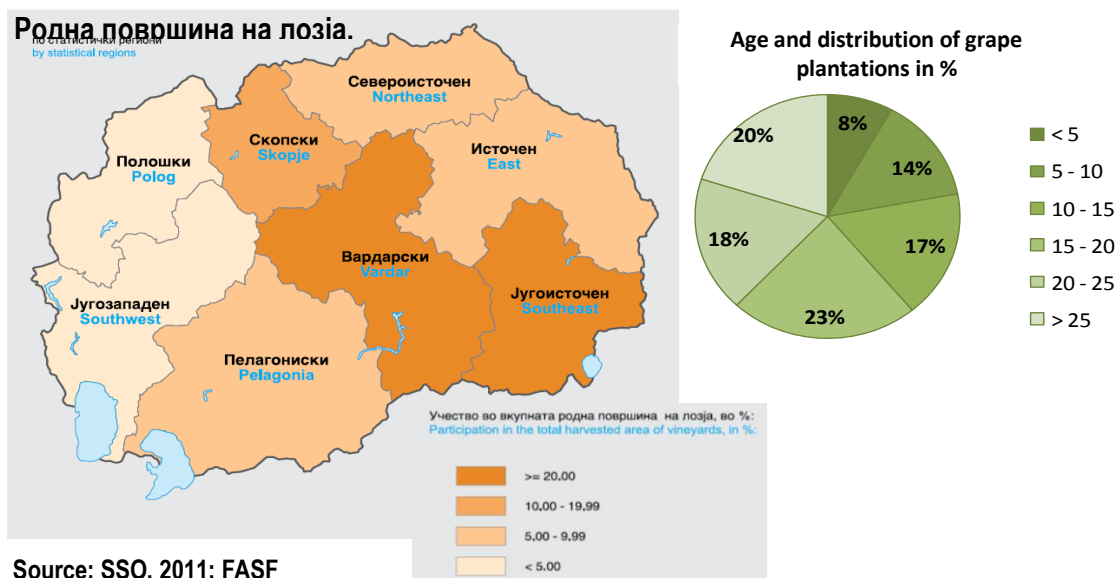
1.5.1.3. Utilization of the production capacities

In general, the fruit and vegetable processing industry features low level of utilization of production capacities. The average utilization level was about 27% in 2005, 36% in 2006, 40% in 2007, 45% in 2008, 38% in 2009 and 40% in 2010. The total installed capacities for processing fruits and vegetables are about 120,000 tons of final product. The reduced utilization levels of the production capacities are mainly due to the effects of the global economic crisis.

1.6. Grape growing and wine industry

Grape production together with wine production contributes about 17%-20% to the agricultural GDP. Wine, after tobacco, is the second most important product in terms of the export value of agricultural products.

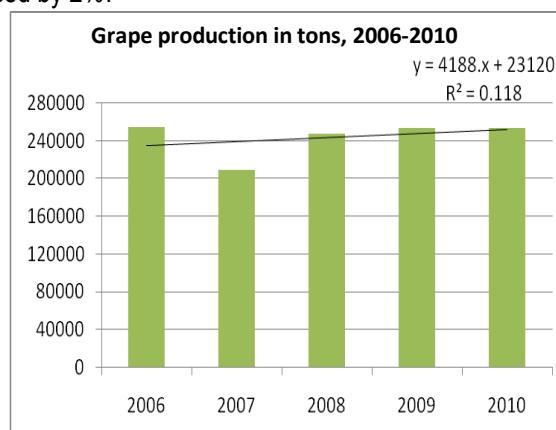
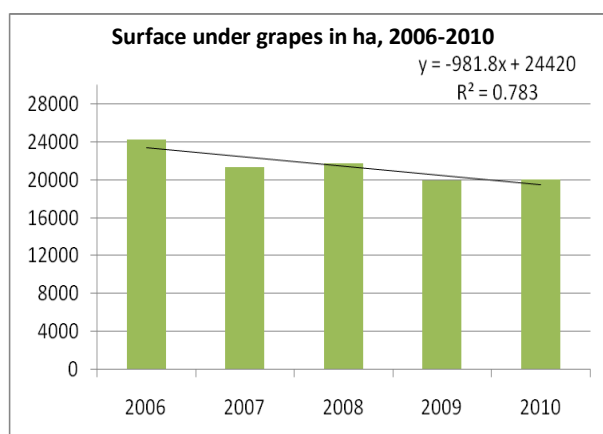
The grape plantations in the Republic of Macedonia have an unfavorable age structure. The reasons are: fragmented plots as a result of the long process of "breaking up" the arable surfaces, inheritance traditions, traditions involving informal relations on the land market and the long period of low investments. More than 60% of the grape plantations are older than 15 years and investments should be made in order to renew them (uprooting/replanting) in order to preserve their (quantitative and qualitative) potential.



Source: SSO, 2011; FASF

The Vardar and the southeastern region have the biggest share of vineyards. According to its climate characteristics, the Republic of Macedonia is classified as a single geographic area – region for regional wine production and therefore all wines produced in the country bear the appellation of origin “Macedonia”. The geographic area of origin for the high quality wines are the 16 broader wine districts: Skopje, Veles, Tikvesh, Gevgelija and Valandovo, Strumica and Radovish, Ovche Pole, Kochani and Vinica, Kumanovo, Kratovo, Pijanec, Prilep, Bitola, Prespa, Ohrid, Kichevo and Tetovo.

Grape plantation have a share of about 4% in the total arable land, including about 30 ha lemon balms for production of grape grafts. The surface area under grape has been generally diminishing since 2006. Contrary to this trend, the production of grapes has been growing during this period. In 2010, the surfaces planted with grapes were 20,700 ha, which is 0.4% more than in the previous year, but 8% less than in 2008. If we analyze the grape production in 2010 we can see, that in comparison to 2009, the grape production has slightly reduced, but in comparison to 2008 it has increased by 2%.



Overview of surfaces under grapes and grape production, 2006-2010

Year	2006	2007	2008	2009	2010
Surface area (hectares)	24,266	21,312	21,800	19,960	20,033
Grape production (tons)	254,308	209,701	247,990	253,456	253,372

Source: SSO, 2006-2011

The share of wine grape varieties in the total surface area planted by grapes is 70%, out of which 40% are white varieties and 60% are colored varieties. The most frequent wine varieties are: Vranec and Kratoshija, which have a longer tradition of growing, and the most frequent white varieties, are: Smedervka, Zhilavka, Chardonnay, Riesling, Sauvignon Blanc etc. The main table grape varieties are: Afus-Ali, Cardinal, Muscat Italy, Muscat Hamburg, White Winter etc. Grape growing includes about 25,000 companies, of which about 70% are individual holdings, and 30% are agricultural companies. The average grape yields are 10 tons/ha.

Table grape is mostly produced in the Vardar region, followed by the southeastern and northeastern region. The table grape variety assortment includes several classes from very early to very late varieties of table grapes.

Because of the favorable climate, the Macedonian table grape is of high quality and a significant export potential. The grapes are exported in several countries in which the grapes from the Republic of Macedonia are traditionally exported.

Overview of the exported grapes (in kilograms), 2005-2010

Year	2006	2007	2008	2009	2010
Table grapes	12,612,923	9,167,337	11,931,980	13,801,004	17,148,882
Wine grapes	18,754,176	28,547,993	10,461,476	10,924,908	14,518,814
Total	31,367,099	37,715,330	22,393,456	24,725,912	31,667,696

Source: MAFWE, 2011

The grapes were bought normally with the planned dynamics and the process ended on time. The weather conditions during 2010 contributed to the exceptional quality of the grapes this year. The wineries bought a total of 121,120 tons wine grapes and a total of 31,667,696 tons of grapes were exported.

Quantities of wine grapes bought by domestic wineries, 2006-2010

Year	2006	2007	2008	2009	2010
Quantities bought (in tons)	106,64	113,483	160,600	157,595	121,120

Source: MAFWE

1.6.1. Registry of grape plantations

By the end of 2009 and the beginning of 2010, MAFWE rolled out the pilot wine registry, established in the period 2004 – 2006 to include the whole territory of the country. At the same time, the data were subjected to photointerpretation and vectorization, i.e. about 22,000 ha planted with grapes were identified and digitalized.

In addition, the registry of grape plantations, as part of the registry of permanent plantations (grape, fruit and olive) was integrated with LPIS, including the registry specific data like surface area, varieties, year of planting, distance between the rows, irrigation system etc. The list of protected wine names is given in attachment 13.

1.6.2. Wine production

Currently there are 86 registered wineries with a total capacity for turning grapes into wine of 2,338,467hl, i.e. approximately twice the size of the annual grape production. The increase of the number of wineries from 28 in 2003 to 86 in 2010 (mainly small and medium wineries) is due to the concentration of the production of high quality bottle wine, with variety control, grape plantations and harvest, the sophisticated processing and marketing technologies that are competitive on the domestic as well as the foreign markets. The domestic consumption of wine is estimated at an average of 8.6 liters per household. The mixed households are the biggest wine consumers, i.e. they consume 9.8 liters of wine per household.

Wine production, 2005-2010

Year	2006	2007	2008	2009	2010
Total wine production (million liters)	70,300	91,103	92,435	95,506	89,222

Source: MAFWE, 2011

2. Livestock production

The basic purpose of the livestock production is to provide the population with high quality livestock products: milk and meat. In the Republic of Macedonia, most of the livestock production occurs in the hilly and mountainous areas along the north, west and east border within a belt that is 10-80 km wide. These regions border the regions for field crop production which contributed to an increased interaction in terms of using the byproducts of field production to nourish the livestock.

Macedonia is largely dependent of imported fodder such as maize, proteins and vegetable fats (soy and sunflower, corn gluten), as well as complete mixes or additives (combination of proteins or proteins, minerals and vitamins). Macedonia is a net importer only of lamb meat, and, sometimes eggs.

Livestock has a 27.5% share in the overall value of agricultural production. Milk has the biggest share (49.8%) in the value of livestock products, followed by pigs (16%), cattle (15.3%), sheep and goats (7.2%).

According to the State Statistical Office, in 2010, the number of cattle and sheep increased by 3% in comparison to 2009, while the number of pigs decreased by 1.7%. The biggest increase in comparison to the previous years is in the case of bees, and their number increased by 42%.

Number of livestock heads

Type of livestock	2006	2007	2008	2009	2010
Cattle	255.430	253.766	253.473	252.521	259.887
Sheep	1.248.801	817.536	816.604	755.356	778.404
Pigs	167.116	255.146	246.874	193.840	190.552
Poultry	2.585.327	2.263.894	2.226.055	2.117.890	1.994.852
Bees	67.804	58.307	61.705	53.439	76.059

Source: SSO, 2007-2011

The meat processing industry is largely dependent on the import of raw meat. The slaughterhouses, the facilities for processing and storing animal products are subdivided into the following categories:

- Animal slaughterhouses;
- Meat confection facilities;
- Facilities for processing and cutting wild game meat;
- Facilities for processing of meat and preparation of animal products;
- Facilities for cooling, freezing and storage of animal products.

The construction, technical plant, capacity, methods of work and organization of the veterinary inspection are classified as follows:

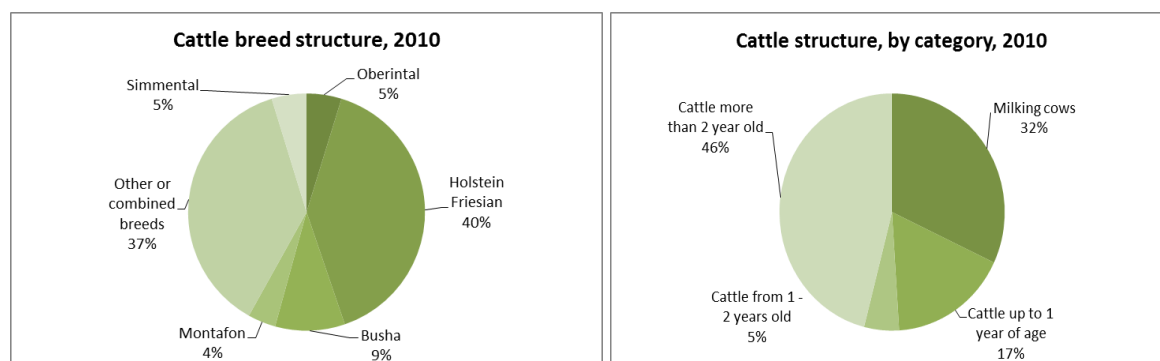
- Production and industrial facilities with high capacity;
- Production facilities with smaller capacity;
- Facilities (rooms) in households for milk processing and preparation of dairy products, sorting and packing of eggs.

The Republic of Macedonia does not have any slaughterhouses approved for export of red meat in EU (except for slaughterhouses for lamb). The main problem has to do with facilities without water treatment plants and where the processors are not interested in fulfilling the criteria of the EU. The system for classification of carcasses does not follow the SEUROPE classification system and the other standards in accordance with the internal EU market. In that context, the Ministry of Agriculture, Forestry and Water Economy enacted the Law on Quality of Agriculture Products, published in the Official Gazette of the Republic of Macedonia number 140/10, which has a special chapter dedicated to the quality of cattle, pig, sheep and goat carcasses in line for slaughtering. The Law is accompanied with a set of bylaws, enacted during the same period, which facilitate the implementation of the SEUROPE classification system.

2.1 Cattle production

Cattle production is the basic subsector of livestock production and it is mostly present in the hilly and mountainous regions along the north, west and east borders of the country. The national breed structure includes mainly milk breeds of cattle, but also combined milk and meat breeds.

The breed structure in 2010 has not change much in comparison to the previous year. It comprises the following breeds: 42% Holstein - Friesian breed (mostly for milk), 10% Busha breed (a domestic breed used for milk, meat and sometimes labor in difficult terrain places), 5% Simmental breed (equally used for milk and meat), 4% Montafon breed (milk/meat) and 0.25% Oberintal (Alpine Gray) breed (milk/meat).



Source: MAFWE – veterinary administration, 2010; SSO, 2011

The general structure of cattle herders is as follows:

1. **Traditional farmers**, which have low productive 1-3 cows with low annual mil production of 2-3 thousand liters / cow. Low productivity occurs due to the inappropriate growing conditions, as well as the low quality of fodder. This type of producers is not the basis for the future market production.
2. **Family farms** who have 5-20 cows with an annual milk production of 4-5 thousands liters/cow on average. Mostly this are mixed farms that should represent the future basis for the development of cattle herding.

3. **Specialized farms**, with more than 20 highly productive cows that produce more than 5 thousand liters of milk per cow. There are very few farms of this type (only 3% of the farms). Only one percent of the farms are farms that have more than 50 cows. These farms should be the leaders of the production of good quality genetic materials for the other farms (reproductive centers).

In 2010, out of a total of 259,887 heads of cattle, 32% are milking cows or 124,553. The average yield of a milking cow was 2,787 liters of milk, which is a reduction in comparison to last year. The cows of the agricultural companies and cooperatives have cows that yield 4,930 liters of milk per cow, which is greater than the yield of the cows of individual producers (2,723 liters / cow). The total production of cow milk in 2010 was 347,103 thousand liters of which 94% are produced by individual producers. The milk production this year has increased in comparison to last year by 1.3%.

Number of cattle and production of milk and meat, 2010

Total cattle	Number				Production		
	Milk cows	Cattle up to 1 year of age	Cattle from 1-2 years of age	Cattle older than 2 years	Average milk yield per milking cow (liters)	Production of cow milk (thousand liters)	Production of beef (in tons)
259,887	124,553	65,553	18,564	175,770	2,787	347,103	6,082

Source: SSO, 2011

This year the beef production was 6,082 tons and it is 16.7% less than during the previous year. The produced quantity is not sufficient for the needs of the domestic consumers, and therefore that quantity is supplemented from imports. The exports in 2010 were 7,773 tons. The biggest share of the imported meat is fresh and chilled meat, and part of the imported meat is used by the processing meat industry.

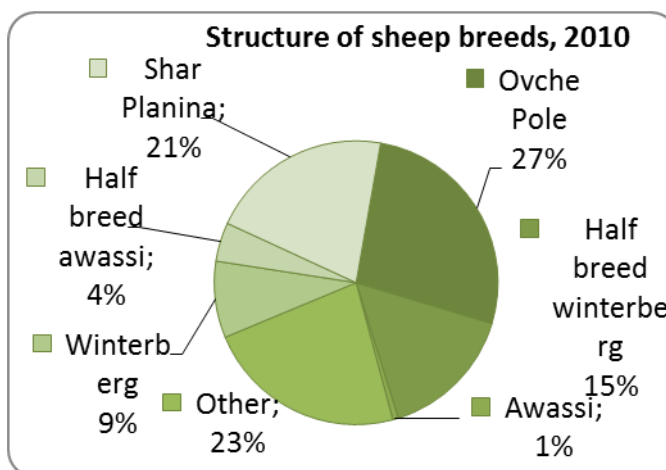
2.2. Sheep Husbandry

Ecologically clean zones and spacious pastures occupy more than half of the total farm land and they are an excellent basis for development of sheep husbandry. Despite the favorable geographic and climate conditions with over 54% of pastures out of the total farm land, the sheep husbandry has a trend of permanent reduction (excluding 2010 when a mild growth has been detected) due to extensively nomadic method of breeding, unsolved social conditions of the rural population and migration of the population to the urban areas.

Sheep husbandry in Macedonia has always been based on small individual and family farms with flock size of 20 to 200 sheep, rarely over 300. Around 95% of the milk sheep are bred by individual farms.

The breed structure of the sheep population in the Republic of Macedonia mainly consists of the improved "pramenka" breed, divided into "ovche pole breed" and "Shar planina breed". Lately, there is increase in the number of half breeds with "Wurtemberg" (for meat) and "awassi" (for milk). Since there is tradition of lamb meat export, traditionally, there is no clearly defined production orientation (meat-wool or milk-meat).

The total number of sheep in 2010 was 778,404. The number of sheep in the individual farms has increased by 4% and in the agricultural holdings it has decreased by 12%.



Source: MAFWE, Veterinary Administration

Number of sheep and production of milk, meat and wool, 2010

Number of sheep	
Sheep	778,404
Milk sheep	536,529
Number of crutched sheep	645,577
Lambs up to 1 year	180,173
Sheep for reproduction	568,301
Mavericks and other abort sheep	29,930
Production of milk, meat and wool	
Sheep milk production (in thousand liters)	32,157
Average milk yield per milk sheep (in liters)	60
Sheep meat production (in tons)	4,786
Wool production (in tons)	1,025
Average per crutched sheep (in kg)	1.6

Source: SSO, 2011

The total production of sheep milk in 2010 was around 32,157,000 liters and has dropped by 2.3% compared to the previous year. The average yield is 60 liters per milk sheep. The milk yield of sheep in the individual farms is 61 liters/milk sheep on average, while in the agricultural holdings and cooperatives it is 42 liters/milk sheep. The price of the sheep milk is nearly twice the price of the cow milk. Most of the sheep milk is processed into white sheep cheese (feta type) which is sold to the domestic market and small quantities are exported to the neighboring countries (like Greece) during the milking season.

Other milk products include sheep yellow cheese, sour cream and curdled cheese. Sheep milk products have a good export potential due to low production costs and high quality. However, the poor production technology and the insufficient hygiene and application of quality standards are a significant obstacle for the development of these products. Lately, the producers tend to increase the milk production and cross various sheep breeds with high milk production potential. In order to improve the reproduction of the cattle, several reproduction centers with high quality mavericks (from the East Frisian, Wurtemberg and Awassi breeds) have been established and operate under control of authorized institutions.

The total wool production in 2010 was 1,025 tons. The wool production is mostly in the individual sector (97% of the total production), where the average yields per crutched sheep is 1.6 kg. The agricultural holdings have higher yields per crutched sheep of 2.1 kg.

The mutton production in 2010 was 4,786 tons. The Republic of Macedonia is net exporter of lamb. Around 75% of the Macedonian lambs are exported in EU countries, mainly Greece and Italy, mostly in the periods around Christmas and Easter – in April (catholic Easter) and December (catholic Christmas). These markets require lambs with weight between 7 and 8 kg. The lambs are slaughtered in slaughterhouses which possess export certificates and they are exported as fresh chilled meat. Although the Macedonian export to the EU is excluded of any import duties, the prominent “Macedonian lamb” is under treat as a result of introduction and mixing of various breeds. Due to that, it is increasingly difficult to produce a uniform slaughtered lamb with the necessary quality. Smaller quantities are sold to Croatia (which becomes an increasingly important market), Serbia and Montenegro, as well as Cyprus, mainly in the customs free quota.

Total export of lamb and mutton by states, 2010

Importing country	Lamb in tons
Italy	1,420
Greece	1,218
Croatia	227
Serbia	50
Bosnia and Herzegovina	5
Total	2,920

Source: MAFWE, Veterinary Administration, 2011

2.3. Goat husbandry

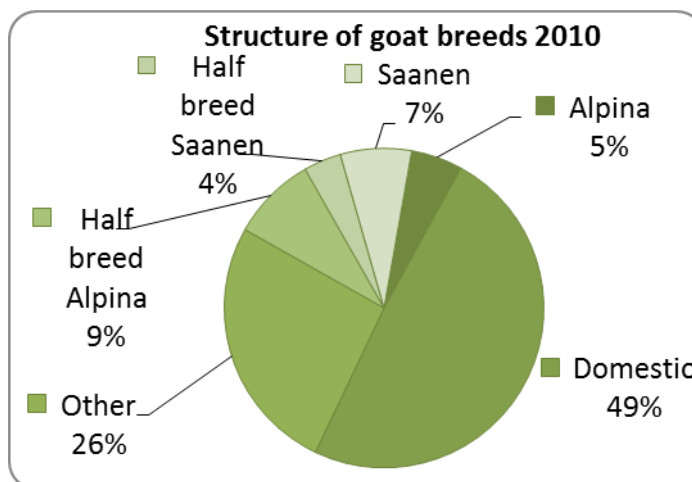
In 2010, 75,709 goats have been registered, out of which 56,638 were milk goats. Most developed goat breeding regions are the Southeast region (31%) and East region (24%), while Skopje and Polog regions are least developed goat regions. Goat husbandry is mainly in the individual farms (98.45%). The breed composition is dominated by the Balkan goat with common presence of half breeds of Saanen breed, but there are also farms with improved breed variety of Alpina type.

The number of goat breeders is increasing as a result of the market demand for goat milk and due to its profitability. However, the main problems facing this competitive emerging branch are lack of application of technical and technological solutions on the farms and general insufficient use of the available natural and other resources by this industry.

The total production of goat milk in 2010 was 15,074 liters which is decrease by 22.2% compared with the previous year.

The average goat milk yield is 266 liters per milk goat. The individual producers have higher yields compared to the agricultural holdings.

The goat milk market is still underdeveloped. The goat milk price is half of the sheep milk price (i.e. almost equal to the cow milk price) and due to that, many of the sheep farmers mix goat and sheep milk. Due to relatively high prices of goat milk products, more and more farmers are equipping on farm processing facilities and deliver various types of goat (or mixed) cheese to the supermarkets or cheese stores.



Source: MAFWE, Veterinary Administration

Goat milk production, 2010

Indicators	Milk goats number	Average per milk goat (liters)	Milk production (000 liters)
Agricultural holdings (cooperatives)	757	153	116
Individual farms	55,881	268	14,958
Total	56,638	266	15,074

Source: SSO, 2011

Several nurseries have been established in order to promote the goat husbandry. The meat production is not significant. Most of the production is kid meat.

2.4. Pig farming

In 2010, there were 190,553 pigs registered in the Republic of Macedonia. The number of pigs in the agricultural holdings has increased only by 4.4%, while in the individual farms there is a decrease by 5.3% compared to the previous year. Agricultural holdings and cooperatives breed 39.6% of the total number of pigs in the country, while the other 60.4% are bred by the individual farmers.

In pig farming, the most common breed is Landrace (Belgian, Danish, Swedish and German) as well as large Yorkshire and Duroc. Introduction of new genetic material is realized only with import of boars in order to avoid mating between relatives and to increase the average production results.

Fattening piglets are slaughtered when they reach around 100 kg. It has been estimated that around 90% of the domestic needs for raw pork are met from the domestic production, but the Macedonian meat industry meets its demands for pork completely from import. The insufficiency of domestic production of pork for the population is covered with imports of fresh, chilled or frozen pork (in 2010, 10,476 tons have been imported). The total production of pork in 2010 was 8,292 tons (almost the same as the previous year).

Pig headcount

Category	2010
Piglets up to 20 kg	71.144
Pigs from 21 to 50 kg	34.334
Pigs from 51 to 110 kg	49.662
Pigs over 110 kg	6.203
Sows and pregnant sows	7.365

Mature sows	20.914
Boars	930
Total pigs	190.552

Source: SSO, 2011

2.5. Poultry farming

During last ten years, the number of poultry is decreasing although the individual farms increase their activity in this sector. Around 64% of the total poultry from all kinds is in the individual sector. Around 42% of the total number of laying hens is in the large farms with 80-100 thousand laying hens per farm and average production of over 242 eggs/laying hen. The remaining is owned by private farms with average production of 164,805 eggs per farm and average production of 168 eggs/laying hen.

The total number of poultry in 2010 was 1,994,852, while the total number of laying hens is 1,688,381 that produce an average of 199 eggs/hen.

Number of poultry and eggs production, 2010

Indicator	Total	Individual farms	Agricultural holdings and cooperatives
Number of poultry			
Poultry of all types	1,994,852	1,281,572	713,280
Laying hens	1,688,381	981,421	706,960
Производство на јајца			
Eggs production (in thousand pieces)	335,820	164,805	171,015
Average per hen (in pieces)	199	168	242

Source: SSO, 2011

The production of chicken meat is based mainly on slaughtering of broilers which have reduced productivity. The production is organized in large farms with industrial methods and in smaller private cooperative farms (around 30). There are only two slaughterhouses in the country (with a total annual capacity of 2 million birds) which limits the development of poultry farming. The domestic production of chicken meat has a rapid growth in the last decade, but still it covers only 20% of the domestic demand. Due to that, most of the chicken meat comes from imports as frozen chicken meat. The imported meat is sold by lower prices which lowers the price of the domestic meat. The chicken meat import has the largest share in the total import of agro-food products.

An interesting trend in the poultry industry is the recent development of new activities, such as ostrich breeding. With a relatively low investment (2000-4000 € per family), the solid income and secured placement of the production on contractual base, the farming of these birds, although in the initial development phase, may provide good possibilities as a profitable alternative for diversification of the existing agricultural activities.

2.6. Apiculture

Apiculture in the Republic of Macedonia is an important industry mainly due to the extensive biological significance of the honey bees for pollination of the endomorphic plants (mostly fruits), and also for the production of bee products (honey, wax, pollen, propolis, royal jelly and bee poison).

The number of bee colonies in 2010 was 76,052 (increase by 42.3% compared to 2009). Most of the production (99%) is in the individual sector, where an average of 11 kg of honey is realized from a bee colony. The annual honey production in 2010 is 825 tons, out of which only 1 ton was produced from agricultural holdings.

Number of bee colonies and honey production, 2010

Indicator	Total	Individual farms	Agricultural holdings and cooperatives
Number of bee colonies			
Bee colonies	76,052	75,953	99
Honey production			
Honey production (in tons)	825	824	1
Average per bee colony (in kg)	11	11	10

Source: SSO, 2011

The average annual production per bee colony is low compared to the production in other countries, and it is a result of the apitechnical, breeding and environmental and genetic factors. Almost the complete bee production is consumed on the domestic market, and only 16.5% of the production is exported.

The most common type of honey bee is **apis mellifera macedonica** (16%), before **apis mellifera ligustica** (13%), then **apis mellifera carnica** (10%), **apis mellifera mellifera** (5%) and **apis mellifera caucasica** (5%), while the remaining bees (51%) are from the population of new genetic forms (hybrids) which do not comply with breed standards.

2.7. Snail farming

Snail farming is a profitable business which has been developing in Macedonia in the last 8-9 years. The snail production requires small space. On an average 2000 square meters farm, six to seven billets are divided with a mesh, and the breeding lasts for six months

The production is sold with contracts with companies from other countries (like Italy) where the demand is extensive. The foreign buyers pay an average 2.5 EUR/kg snails. The Association of Snail Breeders in Kumanovo has 25 member farms which produce around 40 tons of snails. This production is not sufficient to meet the growing demand on the European markets.

3. Quality policy and organic farming

3.1. Quality policy

Regarding the agricultural products quality policy, the Assembly of the Republic of Macedonia, on the 15th October 2010, has enacted the Law on Quality of Agricultural Products which regulated the agricultural products markets, quality standards, classification, quality marking and cereals and rice information system, animal feed, fresh fruit and vegetables, eggs and poultry meat, beef, pork, mutton and goat meat, milk and dairy products, bee products, protection of agricultural and food products with geographic name and mark of guaranteed traditional specialty as well as control and supervision over the implementation of this law.

For the purposes of the institutional establishment of this system, in 2010, a Sector for Marketing and Quality of Agricultural Products has been established within the MAFWE. This sector includes the following three departments: Department for Standards and Quality of Agricultural Products, Department for Marketing of Agricultural Products and Department for Economic Association of Agricultural Producers. The sector has 10 staff.

The Sector for Marketing and Quality of Agricultural Products, in cooperation with the other sectors, currently works on preparation of the bylaws for the Law on Quality of Agricultural Products, which should be enacted until October 2011.

Since Macedonia is a small developing country, a significant part of the exports is based on agricultural products and efforts are made to provide better quality in order to be competitive on the domestic and foreign markets. Due to that, in order to increase the value of certain agricultural products, as well as through protection of their quality from the aspect of their origin with mark of origin and geographic mark, as well as from the aspect of protection of their traditional properties with mark for guaranteed traditional specialty financial support was envisaged in the previous and this year. This financial support in 2011 will be raised to 405.000 €.

With the preparation of bylaws in the part of protection of agricultural and food products with geographic mark or guaranteed traditional specialty (until June 2011), there will be legal conditions for registration of such products. In the period from June 2011 to December 2012 it is planned to protect several Macedonian products. Currently, 6 agricultural products and processed food have the greatest potential for protection – sheep yellow cheese, sheep white cheese, hard cheese, Macedonian lamb, Skopje tomato “Jabuchar” and Prespa Idared.

In order to realize the twinning project within component 1 of IPA Program, TAIEX meetings were realized in 2010 in the Republic of Macedonia and in the Republic of France. In Macedonia, an expert mission for protection of the agricultural and food products with origin mark, geographic mark and guaranteed traditional specialty was held in the period between 20 and 24 September 2010. In France, a study visit on the topic of implementation of the legislations relating to origin mark, geographic mark and guaranteed traditional specialty was held between 4 and 8 October 2010.



Source: MAFWE, 2011

3.2. Organic farming

The development of organic farming in RM continues to grow. More and more entities are involved in the organic farming system, and the production capacities are expanding. The growth in 2010 was the greatest recorded, either in the number of operators or in the cultivated areas under organic agricultural production and in the certified areas with self-grown plants and crops which are more than 250,000 ha.

Cereals have the greatest share in the organic farming with 57% of the total organic production, followed by the forage crops with 19%, fruits, grapes and garden crops with 4-6% each and the oil and industrial crops with 1% each.

In animal husbandry, the leading branch is sheep husbandry (95% of the organic production). Goat husbandry and cattle breeding have shares of 2-3% each in the organic animal husbandry.

Crop and animal organic production (2009/2010)

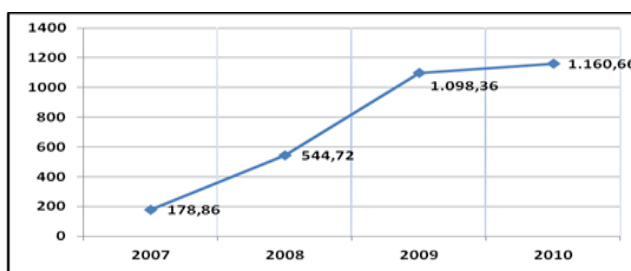
Crop organic production						
Type/crop	2009			2010		
	In transition	Organic	Total/ha	In transition	Organic	Total/ha
Cereal	501.52	166.35	667.87	2,723.7	276.1	2,999.8
Forage	101.04	82.05	183.09	848.9	145.7	994.6
Industrial	12.31	31.32	43.63	32.1	/	32.1
Oil	63.78	/	63.78	40.7	6.7	47.5
Fruit	137.48	73.55	211.03	165.9	168.3	334.2
Grapes	46.25	13.92	60.17	223.6	20.7	244.3
Garden	84.22	58.64	142.86	164.2	35.7	199.9
Fallow land	7.99	56.81	64.8	306.4	66.3	372.7
Сточарско органско производство						
Type of animal	In transition	Organic	Total	In transition	Organic	Total
Cattle	180	197	377	2,522	37	2,559
Sheep	21,844	208	22,052	92,523	6,275	98,798
Goats	791	248	1,039	2,470	578	3,048

Source: MAFWE, 2011

As a result of the increase of production capacities and number of farmers included in the system, as well as the complete implementation of the projected funds in the previous years, each year there is increase in the financial support for the organic agricultural production. The 2010 Program for Financial Support of the Agriculture envisages funds for incentives for development of the organic farming in RM in amount of 1,160,656 €. This program was completely realized.

Amount of the financial support for organic farming, 2007-2010

Year	€
2007	178,862
2008	598,360
2009	1,098,360
2010	1,160,656



Source: MAFWE, 2011

The Law in Organic Agricultural Production (Official Gazette of RM no. 146/09) envisages enacting rulebooks which will regulate the detailed rules and procedures in organic agricultural production. All the bylaws envisaged were enacted in 2010 (Official Gazette of RM no. 162/10 and 163/10) which regulate the basic principles of organic agricultural production, allowed means and the methods of management, monitoring and control of organic agricultural production.

After the enactment of the bylaws, the national legislation in the organic agricultural production is completely harmonized with the European Union regulations (Council Regulation (EC) No 834/2007 and Commission Regulation (EC) No 889/2008).

The expert control and certification of organic agricultural production is delegated to two certification bodies which are authorized by MAFWE. These certification bodies perform expert control and certification according to the EN 45011 standard and ISO/IEC Guide 65 (General requirements for bodies working with product certification systems). The confirmation that the certification bodies operate according to this standard is given by the Accreditation Institute of the Republic of Macedonia (AIRM) which is a full member of the European Accreditation (EA) cooperation and it is in a procedure for signing of a contract for multilateral recognition (MLA).

During 2010, 578 regular and 43 additional/unannounced controls have been performed and 562 certificates have been issued for organic production and area of 5,225 ha.

Certified area and number of entities (2006-2010)

Year	Total certified production area in ha	Number of operators
2006	509.42	102
2007	714.47	150
2008	1.029.00	226
2009	1.373.83	321
2010	5.225.10	562

Source: MAFWE, 2011

The complete control and supervision over the operations of the certification bodies is performed by the State Agriculture Inspectorate (SAI). Additionally, any entity applying for financial supports in organic farming is controlled by SAI.

In order to raise the national awareness about the value of organic food, as well as promote the new national mark for organic products, in 2010, MAFWE has initiated realization of national consumers' awareness rising campaign about organic food.

Based on the realization of the campaign i.e. needs for additional awareness rising and information campaign about organic farming, the Ministry, in cooperation with the Federation of Organic Producers (FOP), using the principle of public private partnership, has produced an internet site which provides additional information and data about quantities and places where they can procure organic products ([http://174.133.26.108/\\$sitepreview/organicmacedonia.org.mk](http://174.133.26.108/$sitepreview/organicmacedonia.org.mk)).

The campaign continues in 2011 with new media tools in order to achieve sufficient level of recognition and consumption of organic food and greater motivation of the organic producers for increasing of their production capacities and motivation for the merchants to sell organic food.

The National Organic Agricultural Production Strategy (2008-2011) is being successfully realized having in mind that most of the planned measures and activities in the Action Plan for realization of the Strategy have already been realized. During 2011, it is envisaged to prepare the National Organic Agricultural Production Strategy (2012-2017).

In October 2010, a TAIEX study trip to Republic of Slovenia was realized for implementation of the control in organic agricultural production for representatives of the Ministry of Agriculture, Forestry and Water Economy (MAFWE) and institutional strengthening of the State Agriculture Inspectorate (SAI). The institutional strengthening of MAFWE and SAI continues in 2011 with new recruitments and trainings.

Preparations for realization of a Twinning Project within Component I of 2009 IPA Program started for more successful implementation of the legal regulations and strengthening of the complete organic agricultural production system in RM.

4. Fishing industry

The total production of fish in the Republic of Macedonia includes the aquaculture production and catch from the business fishing in the fishing waters.

The production of fresh trout (rainbow, river and Ohrid) and fresh carp was the most significant in 2010, as well as in the previous period. In addition to these fish types, the fish farm facilities produce grass carp and silver carp.

Aquaculture production of the most significant fish types by registered entities, 2009-2010

Fish type	2009		2010	
	Total/kg		Total/kg	
Trout	315,378		645,595	
Carp	116,802		342,309	
Catfish	5,000		10,200	
Other	2,269		13,250	
Total	439,449		1,011,354	

Source: MAFWE, 2011

Data shown in the table are based on the records about fish production kept in the Fishery Department (Agriculture Sector) based on data submitted by the fish farms (29 entities) registered in the Register of Fish Farmers.

In addition to the records of the fish farmers and their production for the purposes of monitoring of the production and trade of the ranching material, the Fishing and Aquaculture Department keeps register of reproduction centers which produce ranching material for ranching of fishing waters where three entities are registered. There are 12 entities registered for production of ranching material for fish farms.

Except the aquaculture production in 2010, it is assessed that between 130 and 150 tons of all fish types are caught every year by recreational fishermen. The fishing waters for business fishing (except the waters covered with special acts that ban it) are given under concession for business fishing and organizing recreational fishing.

In 2011 it is planned to initiate the procedure for concession of the fish for business fishing and organizing recreational fishing in a 6 year period according to the provision of the Fishing and Aquaculture Law (Official Gazette of the Republic of Macedonia number 07/08, 67/10, 47/11 and 53/11). According to the official statistics, an average household in the Republic of Macedonia consumes around 21 kg of fish and fish products annually, or around 5 kg per capita. The share of EU-27 import of these products in the total import of agricultural and food products in 2010 was 1.5%.

Most significant imported fish and fish products in the Republic of Macedonia from EU-27, 2009-2010

		MK imports from EU-27					
		2009			2010		
Tariff code	Description	Quantity in tons	Value in 1000€	Share	Quantity in tons	Value in 1000€	Share
1605	Crustaceans, mollusks and other aquatic invertebrates, prepared or preserved	169	1.186	23.5%	153	554	16.6%
0307	Mollusks, whether in shell or not, live, fresh, chilled, frozen, dried, salted	1,071	1.030	20.4%	72	173	5.2%

0303	Fish, frozen	966	1.028	20.3%	710	796	23.8%
1604	Prepared or preserved fish; caviar	306	973	19.2%	275	910	27.2%
0302	Fish, fresh or chilled	175	579	11.5%	133	638	19.1%
0306	Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted	13	112	2.2%	11	109	3.3%
0304	Fish fillets and other fish meat(whether or not minced), fresh, chilled or frozen	32	91	1.8%	25	76	2.3%
Total		2,744	5,059	100%	1,395	3,344	100%

Source: SSO, 2011

The share of fish and fish products export in the total exports of agricultural and food and fish products in EU-27 had a share of 3.8% (exclusively due to export of snails, fresh or preserved – tariff code 0307 60 00 00 and 1605 90 30 10).

Најзначајни извезени риби и производи од риби од Република Македонија во ЕУ-27, 2009-2010 година

		MK exports from EU-27					
		2009					
Tariff code	Description	Tariff mark	Description	Tariff mark	Description	Tariff mark	Description
1605903010	Snails, other except sea snails, processed or preserved	1,291	6,241	80.7%	1,328	6,511	98.1%
0307 60	Snails, other snails except sea snails	584	1,495	19.3%	159	122	1.8%
1604	Prepared or preserved fish	0	0	0.0%	0.3	1.6	0,0%
Total		1,875	7,736	100%	1,488	6,634	100%

Source: SSO, 2011

The Program with measures for promotion of fishing and aquaculture in 2010 with measures for promotion of fishing industry including rural development measures was enacted at the beginning of the year.

In order to monitor and realize the measures from the program, records of the total state assistance in the area of fishery and aquaculture were established including data about planned and approved funds, received and approved requests and data about paid funds in 2010. For realization of the measures from the program, funds in total amount of MKD 31,000,000.00 were paid in 2010 and most of them were for investments in fishing and aquaculture, protection of water flora and fauna and providing ranching material for the production fish farm capacities.

A Law on Amendments to the Law in Fishing and Aquaculture (Official Gazette of the Republic of Macedonia no. 67/10) was enacted in 2010. The basic changes in the law are adding new provisions about the state assistance in fishing and aquaculture according to the EU Regulations no. 32008R0736 and 32006R1198 and detailing the penalty provisions with reducing of the fines. In addition to these two changes, the provisions about organizing recreation fishing and aquaculture were detailed.

5. Agricultural markets and trade with agricultural and food products

5.1. Exchange of trade data for primary agricultural products, processed agricultural products and fish products

The process of trade integration of the Republic of Macedonia has started with its independence. Faced with regional instability, political and economic blockades by Greece and the UN embargo to the northern

neighbor Yugoslavia, the trade became increasingly difficult due to loss of the traditional markets. In mid 90s, the stabilization of the region intensified the process of trade integration. The process of trade integration of the Republic of Macedonia can be divided in regional, global and European integration.

The regional integration process is marked with a series of Free trade agreements (FTS) with the countries in the region. The global integration has marked the entrance of the Republic of Macedonia in the World Trade Organization in 2003, while the process of European integration is defined with the Stabilization and Association Agreement.

One of the principles of the WTO is that the countries should reduce their trade barriers and allow more free trade. During the WTO negotiations, the Republic of Macedonia has agreed to a significant liberalization in most of the products, while the customs protection of the agricultural products remains on a satisfactory level, due to the significance of the agriculture sector.

Most common forms for further trade liberalization are establishing preferential trade contracts, free trade zones, customs unions and common market (EU for example).

The main goals of the regional free trade agreements are stimulating the growth of the national economy through:

- Better market access for the national export products in other countries;
- Attracting and increasing of the foreign direct investments as well as modern technology as an additional element to the investments;
- Increasing of the productivity and competitiveness on the domestic and foreign markets.

The Free trade agreement with the European Union is the most significant preferential contract, due to the scope of trade between the Republic of Macedonia and EU. Based on the trade agreement most of the barriers for Macedonian agricultural products have been removed, except for the wine, baby beef, sugar and fish and fish products which have a regime of customs quotas or gradual liberalization. On the other hand, for the agricultural and food products from EU, the Republic of Macedonia has:

- Removed the customs tariffs for the products defined as insensitive;
- Has agreed to a gradual liberalization for the moderately sensitive products in transition period until 2011; and
- Has agreed application of maximum customs protection for the highly sensitive products, and customs free quotas have been agreed for some of them.

The membership in the Central European Free Trade Agreement (CEFTA) is a part of the trade integrations connected to the accession process of the Republic of Macedonia to EU, as a means of regional cooperation and proof of the political maturity of the EU pretending countries.

The Republic of Macedonia has ratified the CEFTA agreement in 2006 and started its implementation on 24th August 2006. Republic of Bulgaria, Republic of Croatia, Romania and the Republic of Macedonia were CEFTA member countries.

Under patronage of the Stability Pact and the European Commission, in June 2006, the South East European countries have started multilateral negotiations for establishment of a legal framework of the new Unique Free Trade Agreement for the region, named Agreement on Amendment of and Accession to the CEFTA (CEFTA – 2006).

This agreement was signed on 19th December 2006 in Bucharest, Romania. The following countries have signed CEFTA – 2006 agreement: Republic of Bulgaria, Republic of Croatia, Romania, Republic of Macedonia, Republic of Albania, Bosnia and Herzegovina, Republic of Moldova, Republic of Montenegro, Republic of Serbia and the Temporary Administrative Mission of the United Nations in Kosovo on behalf of Kosovo. After the accession of Republic of Bulgaria and Romania to the European Union they are no longer members of the CEFTA - 2006 Agreement. CEFTA – 2006 Agreement was ratified by the countries signatories during 2007 and has started with implementation in the second half of 2007. The start of its implementation meant that the existing free trade agreements between the countries signatories no longer applied.

Total trade and trade with agricultural and food and fish products

As a result of the 2009 global economic crisis, the total exchange (import and export) with industrial and agricultural and food products has dropped drastically compared to the previous years and the total import in 2009 was reduced by 28.4% compared to 2008 and the total import was reduced by 22.1%. In 2010, the trade of these products has increased compared to 2009 by 18.4% (from €357.8 million to €423.7 million), and the imports has increased by 6.5% (from €499.8 million to €532.2 million). Nevertheless, the trade balance of the Republic of Macedonia remains negative.

In 2010, the share of the export of agricultural and food and fish products in the total export of the Republic of Macedonia is 16.9%, while the import of agricultural and food and fish products in the total import of the Republic of Macedonia is 12.9%.

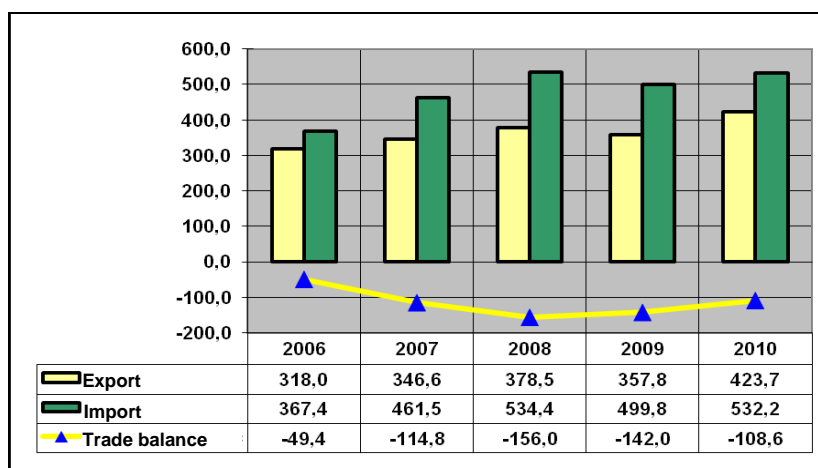
The trade deficit in the last three years has a downward trend, dropping from €156 million in 2008 to €142 million in 2009 and a further drop in 2010 by 23.5% with €108.6 million.

Total trade and trade with agricultural and food and fish products in the period 2006-2010 (in million €)

		Total trade (Industrial and agricultural products)	Trade with agricultural and food and fish products	Share of agricultural and food and fish products in total trade
2006	Import	1,906.2	318.0	16.7%
	Export	2,987.7	367.4	12.3%
	Balance	-1,081.5	-49.4	4.6%
2007	Import	2,446.4	346.6	14.2%
	Export	3,795.0	461.5	12.2%
	Balance	-1,348.6	-114.9	8.5%
2008	Import	2,689.2	378.5	14.1%
	Export	4,643.4	534.4	11.5%
	Balance	-1,954.2	-156.0	8.0%
2009	Import	1,925.2	357.8	18.6%
	Export	3,615.8	499.8	13.8%
	Balance	-1,690.6	-142.0	8.4%
2010	Import	2,497.5	423.7	16.9%
	Export	4,119.1	532.2	12.9%
	Balance	-1,621.6	-108.6	6.7%

Source: SSO, 2011

Development of the Macedonian trade with agricultural and food and fish products in the period 2006-2010 (in million €)



Source: SSO, 2011

5.2. Republic of Macedonia's most significant partners in trade with agricultural and food and fish products in 2010

In 2010, the CEFTA 2006 member countries were the most significant partners of the Republic of Macedonia in trade with agricultural and food and fish products with a total value of the trade (import + export) of €393.7 million. The share of export of agricultural and food and fish products in CEFTA 2006 countries in the total export of these products in 2010 was 51.7%, while the share of import of agricultural and food and fish products in CEFTA 2006 countries in the total import of agricultural and food and fish products in 2010 was 32.8%. The most significant trade partner from the CEFTA 2006 member countries was Serbia with a share of 20.1% in total export of agricultural and food and fish products and share of 23.6% in the total import of these

products. Croatia is next (with a share of 7.4% in total export and 6.1% in total import), then Bosnia and Herzegovina (with a share of 7.1% in total export and 2.0% in total import). Kosovo is a significant partner regarding the export with a share of 11.4% of the total export, while the other CEFTA 2006 member countries (Montenegro, Moldova and Albania) do not have significant share in the trade yet.

Second most significant partner of the Republic of Macedonia in the trade with agricultural and food and fish products in 2010 was EU-27 with a total value of the trade (import + export) of €390.1 million. The share of export of the agricultural and food and fish products in EU-27 in the total export of these products in 2010 was 41.0% while the share of the import from EU-27 in the total import of agricultural and food and fish products in 2010 was 40,7%

It should be also noted that Turkey, which is an EU candidate country is Macedonia's significant trade partner with a share of 1.2% of the total import of agricultural and food and fish products and 3.6% of the total import of these products. The most significant non-European partner is Brazil with a share of 7.9% of the total import in 2010 as a result of the import of great quantities of sugar, poultry meat, beef and coffee from Brazil.

Overview of the trade with agricultural and food and fish products by countries in 2009 and 2010 (in million €)

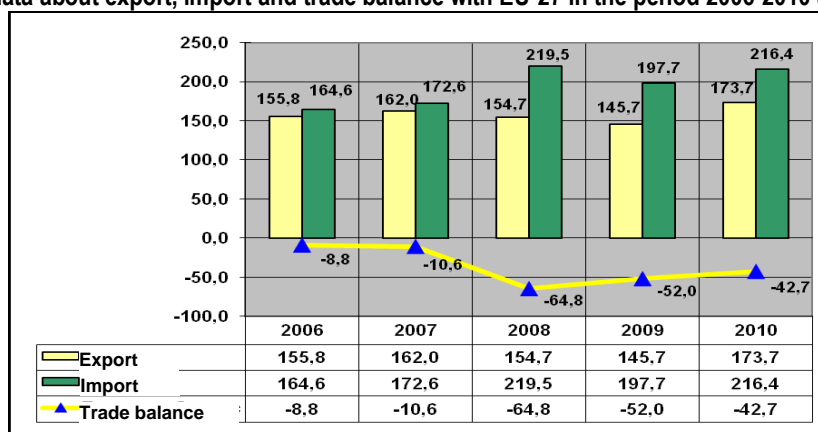
Country	Export				Import				Trade balance	
	2009		2010		2009		2010		2009	2010
	Value	Share%	Value	Share%	Value	Share%	Value	Share%		
Albania	12.4	3.5%	15.2	3.6%	1.0	0.2%	0.9	0.2%	11.4	14.3
Bosnia and Herzegovina	30.0	8.4%	30.0	7.1%	12.0	2.4%	10.8	2.0%	18.0	19.3
Croatia	29.3	8.2%	31.5	7.4%	28.9	5.8%	32.4	6.1%	0.4	-0.9
Serbia	78.9	22.1%	85.0	20.1%	105.9	21.2%	125.6	23.6%	-27.0	-40.6
Kosovo	35.5	9.9%	48.2	11.4%	2.44	0.5%	4.4	0.8%	33.1	43.8
Montenegro	9.0	2.5%	9.1	2.1%	0.3	0.1%	0.6	0.1%	8.7	8.5
Moldova	0.05	0.0%	0.3	0.1%	0.23	0.0%	0.04	0.01%	-0.2	0.2
Total CEFTA	195.1	54.5%	219.1	51.7%	150.9	30.2%	174.6	32.8%	44.3	44.5
Total EU-27	145.7	40.7%	173.7	41.0%	197.7	39.6%	216.4	40.7%	-52.0	-42.7
Turkey	2.7	0.7%	5.2	1.2%	18.0	3.6%	19.0	3.6%	-15.4	-13.8
Brazil	0.0	0.0%	0.7	0.2%	42.2	8.4%	42.0	7.9%	-42.2	-41.3
Other countries	14.3	4.0%	24.9	5.9%	90.9	18.2%	80.3	15.1%	-76.7	-55.4
Total, world	357.8	100%	423.7	100%	499.8	100%	532.2	100%	-142.0	-108.6

Source: SSO, 2011

5.3. Trade with agricultural and food and fish products between the Republic of Macedonia and EU-27 in 2010

The trade between the Republic of Macedonia and EU-27 has an average share of 43.5% in the total trade with agricultural and food and fish products for the period 2006 to 2009. In 2010 this share is 40.8% i.e. the share of the export of agricultural and food and fish products to EU-27 was 41.0% from the total export, while the share of EU-27 in the total import of agricultural and food and fish products was 40,7%.

Overview of the data about export, import and trade balance with EU-27 in the period 2006-2010 (in million €)

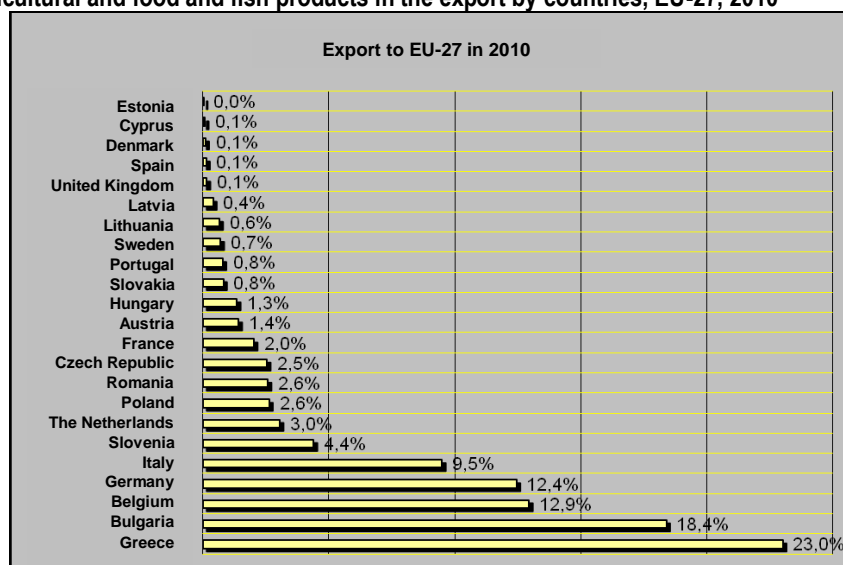


Source: SSO, 2011

After the positive developments in the trade in 2006 and 2007, expressed through reduction of the trade deficit, in 2008, there was another rise of the trade deficit as a result of reduced import and increased export. The value of trade deficit in 2008 was €64.7 million, compared to €10.5 million in 2007. The following two years, the trade deficit was reduced and in 2009 it was €52 million and in 2010 €42.7 million. The reduction of the trade deficit is a result of the increase in the exports of agricultural and food products from Macedonia to EU-27 (19.2% compared to the previous year). The import of these products to Macedonia from EU-27 has also increased by 9.5%.

Greece was the most significant destination for export of Macedonian agricultural and food and fish products in 2010 (with a share of 23% in the total export to EU-27) with tobacco, prepared or processed snails, lamb and various types of fresh vegetables, as most significant products. Our neighbor Bulgaria is next (with a share of 18.4% of the total export to EU-27) with tobacco, fresh tomatoes, apples, fresh peppers, as most significant products. Belgium with a share of 12.9% of the total export to EU-27 is the third most significant export destination, with tobacco as the most significant product. Germany is next with a share of 12.4% of the total export to EU-27 with the following products: wine, vegetables, semi prepared, canned vegetables, semi prepared or canned fruit, tobacco and some other products. Italy is next with a share of 9.5% of the total export to EU-27 and the most significant export products include: lamb, mushrooms semi prepared or canned, dried vegetables, vegetables semi prepared and canned vegetables. Then is Slovenia with a share of 4.4% of the total export to EU-27, the Netherlands with 3% share, Poland with 2.6% etc.

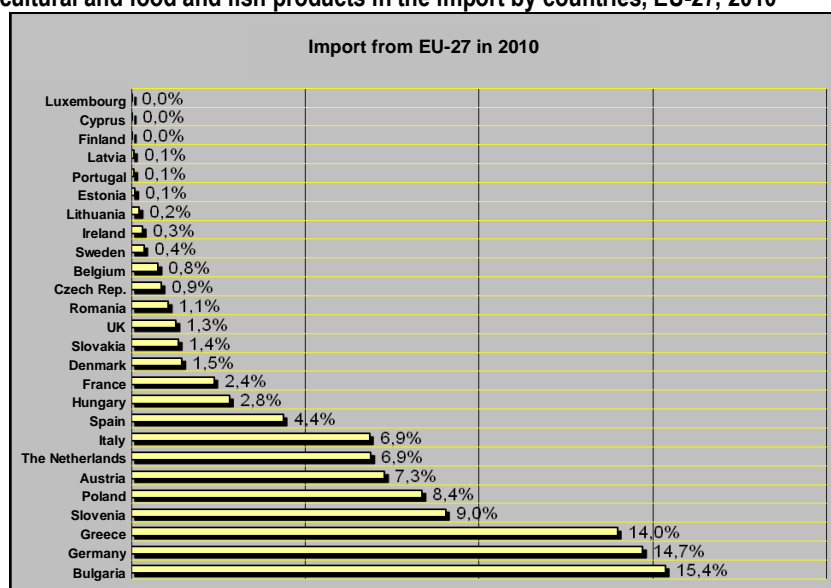
Share of the agricultural and food and fish products in the export by countries, EU-27, 2010



Source: SSO, 2011

Regarding the import in 2010, Bulgaria, Germany and Greece are the most significant trade partners from EU-27, with shares of 15.4%, 14.7% and 14% of the total import from EU-27, respectively. The most significant import products from Bulgaria include: sunflower oil, biscuits and waffles, sunflower seed and some other products; the most imported products from Germany include: fresh pork, chilled or frozen, food products not specified otherwise, beef fresh or chilled, chocolates, various types of cheeses, malt extracts etc. The following products were imported from Greece: canned vegetables (olives), food products not specified otherwise, animal feed, cotton, unprocessed, poultry meat and fresh and citrus fruit (oranges, tangerines, grapefruit, lemons). Slovenia has a share of 9% with the most significant imported products including: poultry meat, meat products, sausages and similar meat products, food products not specified otherwise, cheeses and other products. Poland has a share of 8.4% in the total imports from EU-27 and the most significant import products include: beef, fresh or chilled, food products not specified otherwise, chocolates and some other products. Austria is next with a share of 7.3% with beef, soda drinks, pork, food products not specified otherwise, some types of cheeses etc. Italy and the Netherlands have shares of 6.9% respectively and Spain has a share of 4.4% of the total imports from EU-27 etc.

Share of the agricultural and food and fish products in the import by countries, EU-27, 2010



Source: SSO, 2011

5.4. Analysis of the trade with EU-27 by products

The **fish and fish products** trade reflects the dependence of the Republic of Macedonia from sea fish and fish products, considering that the country does not have a seaside. The share of these products in the total import of agricultural and food products and fish products from EU-27 in 2010 was 1.5% while the share of their export in the total export of agricultural and food products and fish products in EU-27 was 3.8% (exclusively as a result of the export of snails fresh or processed – tariff codes 0307 60 00 00 and 1605 90 30 10).

Similar to the above, the **group of other agricultural products**, whose tariff codes are after Chapter 24 of the Customs Tariff, have a marginal share in the total trade with agricultural and food and fish products with EU-27, with a share of around 0.5% of the total import and a share of 0.6% of total export in 2010.

According to that, most of the trade in 2010 between the Republic of Macedonia and EU-27, with a share of 97.6% of the total import and 95.6% of the total export, is with **agricultural and food products from the tariff codes between Chapter 1 and 24 of the Customs Tariff**. Most of the trade is with **primary agricultural products** (with a share of 88.9% of the total import and a share of 68.5% of the total import) and with **processed agricultural products** with a share of 7.3% of the total import and a share of 29.9% of the total import of agricultural and food and fish products.

5.5. Analysis of the Republic of Macedonia's export to EU-27 by products

Increased export of agricultural and food and fish products from the Republic of Macedonia to EU-27 by 19.2% (from €145.7 million in 2009 to €173.7 million in 2010) is a result of the change of the export of the following products:

1. **Increased export of:** apples by 250% (from €0.9 million to €3.2 million); tobacco by 10.9% (from €56.4 million to €62.3 million); tomatoes by 118% (from €3.4 million to €7.4 million); fruits and nuts, boiled or fresh, frozen by 153% (from €1.5 million to €3.9 million); cabbage by 84% (from €2.7 million to €5 million); mushrooms and peppers by 37% (from €6.9 million to €9.6 million); frozen vegetables by 35.5% (from €4.5 million to €6.1 million); water melons by 69.7% (from €1.7 million to €2.9 million); juices by 159% (from €1 million to €2.7 million) etc.
2. **Reduced export of:** wine by 25% (from €16.2 million to €12.1 million);

The most significant Macedonian export agricultural and food products to EU-27 in 2010 were: unprocessed tobacco (with a share of 35.9% of the total export), wine (with a share of 7%), lamb (with a share of 7.4%), various types of vegetables, fresh and chilled (with a share of 5.5%), tomatoes (with a share of 4.3%), biscuits and waffles (with a share of 4%) and snails, canned (with a share of 3.7%).

5.6. Analysis of the Republic of Macedonia's import to EU-27 by products

The increase of the import in 2010m compared to 2009 by 9.5% (from €197.7 million in 2009 to €216.4 million in 2010) was a result of the **increased import** of the following products: sunflower oil by 147% (from €7.8 million to €19.3 million); tobacco by 67.4% (from €3.5 million to €5.9 million), pork by 22% (from €10 million to €12.3 million), powdered milk by 120% (from €1 million to €2.3 million), meat products by 24.5% (from €4.8 million to €6.1 million), sunflower seed, butter, cheese, citrus fruits, alcoholic beverages and some other products.

Regarding the import in 2010, compared to 2009, there was a **reduction in the import** of wheat by 49% (from €4.4 million to €2.2 million), malt by 26% (from €3.6 million to €2.6 million), coffee, live plants and some other products.

The following products had the greatest share in the total imports of agricultural and food and fish products from EU-27 in 2010: , food products not specified otherwise (with a share of 10.1%), sunflower seed oil (with a share of 9%), beef, fresh or chilled (with a share of 7.6%), pork, fresh, chilled or frozen (with a share of 5.7%), poultry meat (with a share of 4.6%), chocolates and other food products which contain cocoa (with a share of 3.2%), biscuits and waffles (with a share of 3.1%), vegetables, processed (with a share of 2.3%), cheese (with a share of 2.7%), meat products (with a share of 2.8%), sausages and similar meat products (with a share of 2%), cattle food (with a share of 4.5%) etc.

Wine trade

Macedonia is a net exporter of wine which is a strategic product for the country. In regard to the total value of the export of the agricultural and food products, wine comes second after tobacco.

The total export of wine in 2009 decreased to 687,686 hl (i.e. 2.2% less than in 2008) while the wine export to the EU markets increased to 415,116 hl (i.e. 4% more than in 2008). In 2010, the total export of wine reached 700,167 hl (i.e. 1.02% more than 2009 in terms of quantity and 1.14% more in terms of value). The wine import in Macedonia is marginal.

The export to the EU member countries in 2010 decreased to 323,737 hl, compared to 415,116 hl in 2009. It is 46.24% of the quantity and 32.7% of the value of the total export. Ratio between bulk and bottle wine in the total export has improved compared to 2009 (88%/12%) to 85%/15% in 2010. The export to EU is 51.4% of the bulk wine export and 14.79% of the bottled wine export.

Export and import of bulk wine (quantity and value) for period 2006-2010

Year	TOTAL EXPORT		EXPORT TO EU		TOTAL IMPORT		IMPORT FROM EU	
	Quantity (hl)	Value ('000 €)	Quantity (hl)	Value ('000 €)	Quantity (hl)	Value ('000 €)	Quantity (hl)	Value ('000 €)
2006	746,620	25,956	436,741	13,836	859	50	260	14
2007	831,423	31,328	484,547	15,947	1,730	90	257	15
2008	597,995	25,179	390,648	13,711	15,221	551	2	0.7
2009	606,746	26,550	409,124	15,315	9,325	354	11	2.8
2010	599,240	23,915	308,806	10,572	473	26	26	6.2

Source: SSO, 2011

The analysis of wine trade shows several countries as main destinations for export of the Macedonian wine, such as: Germany (1), the Czech Republic (2) and Slovenia (3) (from the EU countries) and Serbia (1), Croatia (2) and Bosnia and Herzegovina (4) (former Yugoslavia) and USA (3) and Russia (6) as other markets.

Export and import of bottled wine (quantity and value) for period 2006-2010

EXPORT AND IMPORT (BOTTLED WINE)								
Year	TOTAL EXPORT		EXPORT TO EU		TOTAL IMPORT		IMPORT FROM EU	
	Quantity (hl)	Value ('000 €)	Quantity (hl)	Value ('000 €)	Quantity (hl)	Value ('000 €)	Quantity (hl)	Value ('000 €)
2006	80,197	9,608	10,926	1,061	1,705	372	838	256
2007	95,410	12,240	8,904	1,072	1,242	224	470	90
2008	105,378	13,992	9,000	1,205	1,331	377	631	281

2009	80,939	11,803	5,991	941	1,194	248	669	166
2010	100,927	13,434	14,931	1,520	1,639	400	907	288.6

Source: SSO, 2011

Wine customs quotas

The last EU expansion with two new member states, on 1st January 2007, led to an increase of the tariff free quota for export of Macedonian wine to EU to 399,000 hl (out of which, in 2010, 332,000 hl were for bulk wine and 67,000 hl for bottled wine). On the other hand, due to the same reason, Macedonia has increased the tariff free quota for import of wine from EU to 12,000 hl, which will be growing by 300 hl annually and in 2010 it was 12,900 hl.

Based on the data from the State Statistical Office for 2010, the tariff free quota for export of Macedonian wine to EU was used with 81%, out of which the bulk wine quota was used with 93% and the bottled wine quota was used with 22%.

Import of wine from the Republic of Macedonia to the Community

Tariff code	Name	Quote 2010 (hl)	Import 2010 (hl)	EUR €
ex 2204 10	Quality sparkling wine			
ex 2204 21	Wine made of fresh grapes	67,000	14,931	1,519,616
ex 2204 29	Wine made of fresh grapes	332,000	308,806	10,571,681

Source: SSO, 2011

Import of wine to the Republic of Macedonia from the Community

Tariff code	Name	Quote 2010 (hl)	Import 2010 (hl)	EUR €
ex 2204 10	Quality sparkling wine			
ex 2204 21	Wine made of fresh grapes	12,900	907	288,556

Source: SSO, 2011

VII. FOOD SAFETY

The general goals of the **food safety policy** in the Republic of Macedonia are providing protection of the human health and protection of the consumers through implementation of the European Union standards.

The food safety control system in the Republic of Macedonia is a responsibility shared between the Ministry of Agriculture, Forestry and Water Economy (MAFWE) and the Ministry of Health (MoH) in the following way:

- Food Directorate (FD) within the MoH;
- Veterinary Administration (VA);
- Phytosanitary Administration (PA);
- Seed and Planting Material Administration (SPMA); and
- State Agriculture Inspectorate (SAI) within MAFWE.

The main progress and reform in the food safety system in 2010 was achieved with the enactment of the new **Law on Food Safety** (Official Gazette of RM no. 157/2010 dated 08.12.2010).

According to this framework law, from the aspect of institutional strengthening and integrated approach, the **Food and Veterinary Agency** was established to incorporate the following existing authorities: Veterinary Administration within the Ministry of Agriculture, Forestry and Water Economy and the Food Directorate within the Ministry of Health. The establishment of the Food and Veterinary Agency as an independent authority of the Government of the Republic of Macedonia proved to be a most acceptable organization model of the food safety system in the Republic of Macedonia according to the European Union criteria and high standards.

With the effectuation of this Law, both laws regulating the food safety issues – the **Law on Veterinary Health** (Official Gazette of RM no. 114/2007 and the **Law on Safety of Food and Items Coming in Contact with Food** (Official Gazette of RM no. 54/02 and 84/07) ceased to apply.

The now setting includes adapting to the control methods, implementation of the EU approach to the official controls in order to provide a relevant coordination within the framework of the control system, improve the efficiency, control of the budget spending and transparency.

Establishing the single institution will enable optimal use of the existing human resources and material capacities, efficient use of the funds as well as adapting to the main reform courses of the state administration regarding its rationalization and improvement of its efficiency and effectiveness.

The Food and Veterinary Agency of the Republic of Macedonia will start its operations on 1st January 2011 as an independent authority of the Government of RM, responsible to create and implement the food safety, animal feed and veterinary issues policies.

1. Veterinary policy

The Veterinary Administration, as an authority within MAFWE, from the aspect of food safety, is responsible to control and supervise the complete chain of the food of animal origin and animal feed through establishment of basic principles for hygiene, control and supervision on the food of animal origin and animal feed according to the European Union high standards and procedures. The above, indirectly will provide:

1. High degree of animal health protection through use of hygienically proper animal feed,
2. Human healthcare as final consumers of the food from animal origin and
3. Environmental protection against pollution with waste and byproducts of animal origin.

1.1. Animal healthcare

MAFWE, through the Veterinary Authority, according to the Law on Veterinary Health and the 2010 Annual Order, as well as the Programs for suppression and eradication of Brucellosis and Tuberculosis in cattle and the Program for suppression and eradication of Brucellosis in sheep and goats (Official Gazette of RM no. 46/2010) has implemented a series of preventive measures and activities for control and eradication of the following diseases:

a) Preventive vaccination and treatments:

- Rabies and dehelminthization in dogs;
- Classic plague in pigs (349,341 pigs have been vaccinated);
- Newcastle disease in poultry;

- Anthrax – in order to control the disease it is envisaged to vaccinate all the cattle, sheep, goats and equidae in places where the disease has been confirmed in the last 20 years.
- b) **2010 Annual Order** – Final results for diagnostic investigations according to the Labis (Laboratory Information System) methodology.

Tests and other investigations:

- Brucellosis in sheep/goats – in 2010, a total of **423,483** have been tested, out of which a total of **2869** have been found positive. A total of **3629** sheep and goats have been sent to mandatory slaughtering.
- Brucellosis in cattle – in 2010, a total of **172,314** have been tested, out of which a total of **672** have been found seropositive. A total of **500** cattle have been sent to mandatory slaughtering.
- TBC in cattle - in 2010, a total of **178,838** have been tested, out of which a total of **393** have been found positive. A total of **141** cattle have been sent to mandatory slaughtering.
- In 2010, a total of **155,020** have been vaccinated in 2010.

According to the Program for suppression and eradication of the transmissible spongiform encephalopathy (TSE), during 2010, **1851** probes from cattle and **292** probes from sheep/goats in the slaughterhouses in the Republic of Macedonia have been taken and analyzed. The target subpopulations are healthy animals for slaughtering not older than 30 months, perished animals or animals slaughtered out of necessity, not older than 24 months. All the analyzed samples have shown negative results (absence) of the cause of transmissible spongiform encephalopathy.

1.2. Animal identification and registration system (IIR)

The animal identification and registration system consists of:

- Central registry of animal nurseries;
- Means of individual and group identification of animals from cattle, sheep, goats and equidae breeds;
- Registers of animal nurseries for cattle, sheep, goats and pigs;
- Documents about the movement of animals for cattle, sheep, goats and pigs;
- Computer database about the cattle, sheep, goats and pigs.

During 2010, 267,086 cattle have been registered in the database. A passport is prepared and submitted for any market cattle and it follows the animal in any movement thereof (sale). International experts have assessed this system as one of the newest in Europe.

Identification and registration of sheep and goats

As a result of the success of the project “Establishing a cattle identification and registration system”, EAR in cooperation with MAFWE has initiated the realization of the project “Animal identification and realization system – Phase 2” financed by EU, implementing the following activities:

- Consolidation and improvement of the cattle identification and registration system;
- Consolidation and improvement of the small ruminants identification and registration system;
- Integrating of the animal identification and registration system with the other information systems in the Veterinary Administration and in the Ministry of Agriculture, Forestry and Water Economy.

Pigs Identification and registration

A part of the activities in the third phase of the animal identification and registration system is preparation of a strategy and design of pigs' identification and registration system.

The following activities have been concluded so far:

- Preparation of a preliminary strategy for pigs identification and registration,
- Design and preparation of a form for inventory of pigs nurseries as well as all the other documents which are part of the pigs identification and registration system,
- Preparation of amendments to the Law on Animal Identification and Registration,
- Preparation and publication of Pigs Identification and Registration Rulebook.

Current situation of the animal identification and registration system

Animal identification and registration system is in advanced phase and since the beginning of 2010, the following activities have been and are being implemented:

- Permanent implementation of the animal identification and registration activities, document submission, registration of the animals movement and administration of the database;
- Amendments to the existing Law on Animal Identification and Registration in the part of pigs and dogs have been enacted;
- A new Pigs Identification and Registration Rulebook has been prepared and published (Official Gazette of RM no. 84/2010)
- A procurement of 70,000 ear labels for cattle and 1,400,000 for sheep and goats has been realized;
- A strategy for further upgrade of the existing system has been prepared. One of the envisaged modules is the one for border veterinary inspection which will enable improved control of the animal imported shipments;
- Permanent visits to the cattle markets, education of farmers, cattle traders and responsible persons managing the markets regarding the animal identification and registration;
- A concept has been proposed for use of the computer database, establishing information technology standard on Ministry of Agriculture, Forestry and Water Economy level in order to register all the types of farms in the Republic of Macedonia. This approach will reduce the costs of maintenance and licensing of the Agricultural Information System which, according to the European standards, has to be established in order to enable use of the subsidies, food safety and planning of the agriculture development.

1.3. Veterinary inspection services at Republic of Macedonia's border crossings

On the central level, the Sector for Border Veterinary Inspection includes the following two departments: Risk Analysis and International Trade Department and Border Veterinary Inspection Department, with a total of 6 officers.

The veterinary inspection at the border crossings is organized as a part of the Border Veterinary Inspection Sector in the Veterinary Administration. The Government of the Republic of Macedonia determines the border crossings where import, export and transport of shipments prescribed in the Law on Veterinary Healthcare are allowed. The veterinary control of shipments of live animals, products and byproducts of animal origin is implemented by **18 official veterinarians allocated in Veterinary Inspection Spots at 9 border crossings.**

According to the principles of the National Action Plan for Implementation of the Integrated Border Management Strategy issued by the Government of RM, the Veterinary Administration will continue to implement the activities envisaged in its competences toward development of the previous coordinated measures in the supervision of the legislation application in the field of veterinary health during entering and transit of goods and vehicles, preventing and revealing of crimes, organized crime and any type of contraband through the border crossings as well as control of the transport of materials and contagious diseases which jeopardize the public health and the health of the animals in order to improve the business climate in the Republic of Macedonia as a part of the Western Balkans countries and their strive to integrate into the Euro-Atlantic structures.

All the preconditions for **transfer of the border crossing responsibilities from central to local levels** regarding the issuing – approval of the live animals and products of animal origin import and transit. The application software “TRACES-like“ which has been produced using the model of the European Union border crossings software, “TRACES“ is completely compatible to the one stop shop system of import, export and transit of goods and tariff quotas – EXIM which is used to submit the data, information and documents necessary for trade operation on one spot and then control the goods ONLY ONCE, ON ONE SPOT. The implementation of the application software “TRACES-like“ removed the possibility for confusion among EXIM system users caused by the previous issuing of **import licenses – decisions on central level.**

The border crossing veterinary inspection service is involved in the control of the international goods movement along with the other agencies.

1.4. Veterinary public health

Having in mind the previous years' experience in the realization of the plans, the implementation should be performed according to the Plan division, permanently during the while year (1/12 of the prognoses should be realized each month), covering the most possible producers, in case of suspicion samples should be taken and in

case of positive finding more samples should be taken, regular monthly submission of copies of the minutes for taken samples to the Veterinary Administration, as well as following the Samples Strategy, which has been already submitted, during the realization of the Plan and the Rulebook on the Method of Veterinary and Sanitary Control and the Method of Keeping Records about Residues.

Adopted legislation harmonized with the relevant EU legislation:

The following three laws were adopted during 2010:

- a) **Law on Veterinary Medicinal Products** (Official Gazette of RM no. 42/2010 dated 26.03.2010) which regulated the conditions and procedures for market authorizations, production, import, possession, marketing, use and control of the veterinary medicinal products.
- b) **Law on Food Safety** (Official Gazette of RM no. 157/2010 dated 08.12.2010). The goal of the new law is to define the competences between the competent authorities for control of food safety through establishment of Food and Veterinary Agency, efficient procedures for close cooperation between them and achieving complete harmonization with the European Food Law and Hygiene Package.
- c) **Law on Animal feed Safety** (Official Gazette of RM no. 145/2010 dated 05.11.2010) which regulates the general and specific requirements for animal feed, the basic principles and responsibilities of the animal feed operators, organizational structures for animal feed safety and the official controls.

It is important to note that the three above mentioned laws have been completely harmonized with the relevant EU legislation. The food and animal feed safety legislation achieves integrated access in the control of the entire food and animal feed chains through the principle "from a farm to the table" which is the best guarantee for human and animal feed safety. In the same time, they open new possibilities for export of the Macedonian products covered with the above laws, mostly to the European Union markets.

In addition to the existing regulations, the international recognized standards and recommendations (Codex Alimentarium and the World Trade Organization – WTO) apply to the production, processing and distribution of food as well as the food control systems.

1.5. Laboratories

According to the Law on Veterinary Health, the laboratories of the Faculty of Veterinary Medicine (FVM) work as national appointed laboratory for laboratory analyses of the Veterinary Authority official controls.

In January 2010, in addition to the existing 75, additional 20 new diagnostic methods were accredited according to **MKS ISO/IEC 17025:2006** from various fields such as: biology, microbiology, biochemistry, food products, drinks, water, animal feed.

The official documents for accreditation of the methods are issued by the Accreditation Institute and they can be found on the institute's website – www.iarm.gov.mk. They are performed in completely reconstructed and well equipped laboratories: Food institute (Microbiology and Food Laboratory, Food Quality Laboratory, Residues and Contaminants Laboratory, Milk Quality Control Laboratory) and Veterinary Institute (Serology Laboratory, TSE Laboratory). The laboratories have appropriately trained staff, calibrated equipment and controlled environment. The continuity of the quality system is provided through regular internal and external audit. The implementation of MKS ISO/IEC 17025:2006 standard and the FVM accreditation is a guarantee for the clients that investigation results are trustworthy and according to the latest national and international standards and regulations, as well as a proof of provision of high quality client service.

Planned activities of the Food and Veterinary Agency

A. Establishing and maintaining an integrated food safety system in the Republic of Macedonia

Providing compatibility with the European Union control systems is one of the determinants and an obligation of the Republic of Macedonia as an EU candidate country.

The Food and Veterinary Agency will unite the control systems in a single/integrated food control system in the Republic of Macedonia classified in 11 following fields:

- Control system for animal health;
- Control system for food of animal origin;
- Control system for imports of food of animal origin;
- Control system for animal feed and animal nutrition;
- Control system for TSE and animal byproducts;
- Control system for veterinary medicinal products and residues;

- Control system for general food safety;
- Control system for imports of food of plant origin;
- Control system for pesticides; and
- Control system for animal welfare.

After the establishment of a relevant unique control system connecting all the activities and functions, the operations of the Food and Veterinary Agency will be mostly on their maintenance and upgrade, if necessary.

B. Upgrade of the Animal Identification and Registration System

- Upgrade of the legal framework for animal identification and registration of the species pigs;
- Initiation of pigs marking;
- Preparing a software and procurement of necessary materials (ear labels, applicators, printed material) for the pigs marking system;
- The legal regulations for pet identification and registration (dogs and cats) and bee identification and registration system are being prepared;
- A plan and strategy for implementation of the pet (dogs and cats) identification and registration system and bee identification and registration system have been prepared.

C. Improving the animal healthcare and animal welfare measures:

- Epidemiology studies for zoonoses and economically important diseases and preparation of recommendation for preparation of programs for suppression/eradication thereof;
- Preparing recommendations for suppression/eradication of economically important diseases in order to reduce the number of diseased animals as well as reduce the losses as a result of the diseases;
- Introducing the risk assessment principle as a decision making method regarding the animal healthcare;
- Preparing urgent measures plans in case of diseases outbreak (African plague in pigs, New Castle disease) and diseases that are mandatory to report;
- Integration and upgrade of the animal healthcare information systems;
- Awareness rising campaign in the domain of animal welfare.

D. Other systems that will strengthen the capacity of the Food and Veterinary Agency

- Introducing an IT system for network connection and information exchange between the Food and Veterinary Agency, local offices and border crossings and the Customs Administration,
- Introducing a TRADE Control and Expert System (TRACES) as a part of the unique electronic database for monitoring of wild animals shipments and certain products of animal origin in the EU internal trade and ones that should be imported from third countries as well as providing of all relevant data relating to the trade of such shipments. The goal of this system is to prevent import of contagious diseases during trade with wild animals and products of animal origin as well as to provide uninterrupted import of wild animals and products of animal origin,
- Implementing an efficient system for control of production, trade, distribution and use of the veterinary medicinal products,
- Introducing and improving the safety systems for food of animal origin through: adaptation of the production capacities for food of animal origin to the EU standards, establishing new procedures for official control by the official veterinarians (veterinary inspection services) according to the EU standards and recommendations,
- Introducing a system for collecting, treatment and safe removal of the animal origin byproducts as well as issuing of the bylaws for the Law on Animal feed Safety (Official Gazette of RM no, 145/2010 dated 05.11.2010), introducing an efficient control system for all phases of the animal feed chain (production, trade and use of animal feed).
- Establishing application software for RASFF (Rapid Alert System for Food and Feed).

The Law on Food Safety (Official Gazette of RM no. 157/2010 dated 08.12.2010) establishes an information network for rapid information about direct or indirect risk for the human health, caused by food or animal feed and expands the rules confidentiality rules of the rapid information system. This network will participate and cooperate with the European Union RASFF (Rapid Alert System for Food and Feed). The establishment of the application software will enable much faster, uninterrupted and two way flow of information regarding food safety between the members of the information network (competent authorities in the Republic of

Macedonia, the European Commission and other countries with established RASFF equivalent systems). It provides much more efficient prevention of the human health from unsafe food and minimizing the consequences from using such food, developing the other modules as segments of the Veterinarian Information System – VIS including: Identification and registration of sheep and goats, Field controls, Expanding of the module for compensation and killing animals for health protection and welfare with central and PDA application software and “TRACES-like” system.

When all the modules will be developed, any of them will work independently from the other, but they will be interconnected (interface) which will enable flow of specific and clearly defined tasks of the Food and Veterinary Agency. The system will be upgradable i.e. new segments modules will be added if necessary.

2. Phytosanitary policy

In 2009, the Government of the Republic of Macedonia has approved the **Strategic Plan of the Phytosanitary Administration 2009-2012** which planes the future activities: administrative strengthening of the Phytosanitary Administration in the area of plant health, plant protection products and fertilizers.

The Phytosanitary Administration as an authority within the Ministry of Agriculture, Forestry and Water Economy has the following organization structure:

Plant protection sector

- Department for protection, monitoring and prognosis of diseases and pests
- Department for regional centers and laboratories

Agrochemistry sector

- Department for plant protection products
- Fertilizers department

Phytosanitary regulation and management sector

- Phytosanitary regulation and international cooperation department
- Management and public operations department

The phytosanitary policy is placed by the international organizations IPPC and EPPO where the Republic of Macedonia is a member, represented by MAFWE – Plant Protection Administration. The legal regulations are included in the following laws:

- **Law on Plant Health** (Official Gazette of RM no. 29/2005, 81/2008, 20/2009).

The Law regulates the plant health, measures and obligations regarding outbreak of harmful organisms in plants, plant products and other items and objects, prevention of their intake and spreading, suppression measures, biological plant protection measures, information access and exchange and information system, costs and fees, competent authorities, authorized services, authorities and bodies in the plant health area and regulates other issues in the area of plant health. This Law is harmonized with Directive 2000/29 EC. The Law on Plant Health, among the other, regulates the introduction of plant passports in the Republic of Macedonia according to the EU measures and standards. This comprises preparing lists of harmful organisms Annex I – Annex V of the Directive 2000/29 EC as well as regulations including establishing a Register of producers, processors, importers and distributors of plants, plant products and other items and objects. The lists create the basis for priorities for import control and registration of the individual production spots and consequent internal inspection.

- **Law on Plant Protection** (Official Gazette of RM no.110/2007, 20/2009).

The Law regulates the approval, placement of the items on the market, use and control of the plant protection products, placement of the items on the market and control of the active substances which are products, maximum level of residues, equipment for use of products, exchange of information regarding the products, production of products, recording of legal entities and individuals involved in production and placement of products on the market, conditions for authorization of the authorities responsible for implementation, monitoring and control of this Law. This Law is harmonized with Directive 91/414 EEC.

- **Law on Fertilizers** (Official Gazette of RM no.110/2007).

The Law on Fertilizers regulates the production conditions, marketing of fertilizers, import, fertilizers use, types of fertilizers, identification, composition, taking samples, packaging, marking, testing, declaring, monitoring, registering and other issues regarding fertilizers. This Law is harmonized with the Regulation 2003/2003 EC. In

order to harmonize the legislation with the European Union legislation, during 2010, amendments to the basic phytosanitary laws were adopted, a set of rulebooks were issued, including:

■ **According to the Law on Plant Protection Products:**

- Rulebook on the amount of expenses for product approval, issuing certificates for equipment and control testing of equipment (Official Gazette of RM no.145/2010),
- Rulebook on the procedure for processing of the applications and detailed documentation and data for evaluation of the active substances file (Official Gazette of RM no. 28/2010),
- Rulebook on the procedural rules for operations of expert commission for confirmation of the expert activities in the area of product approval of products for plant protection (Official Gazette of RM no.139/2010),
- Rulebook on detailed conditions of packaging of the plant protection products, declaration and marking of standard phases (Official Gazette of RM no. 144/2010),
- List of active substance approved for use in products applied in plant protection on the territory of the European Union (Official Gazette of RM no. 159/2010).

■ **According to the Law on Fertilizers:**

- Rulebook on the content of the approval for packaging and finishing of fertilizers which should be met by legal entities producing, finishing, packaging or any other legal entity that modifies the fertilizer properties (Official Gazette of RM no. 119/2010),
- Rulebook on the detailed conditions which have to be met by the legal entities authorized for fertilizers testing (Official Gazette of RM no. 129/2010),
- Rulebook on the form, content and method of keeping of the Register of legal entities that market fertilizers in wholesale and retail (Official Gazette of RM no. 145/2010),
- Rulebook on the detailed conditions for warehouses, conditions for housing and keeping of fertilizers and environment during wholesale and retail marketing of fertilizers (Official Gazette of RM no. 150/2010).

■ **According to the Law on Plant Health:**

- Decision establishing the spots of import where phytosanitary inspection will be performed (Official Gazette of RM no. 59/2010) in order to identify the entrance spots into the Republic of Macedonia,
- Rulebook on the form, content and method of keeping the register of producers, processors, importers and distributors of plants, plant products and other facilities and items (Official Gazette of RM no. 131/2010) in order to prepare the register.
- List of harmful organisms in plants, plant products and other items and objects (I-V) (Official Gazette of RM no. 65/2010), which publishes the 5 lists of harmful organisms,
- Rulebook on small quantities of plants, plant products and other items and objects, including food products (Official Gazette of RM no. 131/2010),
- Rulebook on the form and content of the phytosanitary certificate or phytosanitary re-export certificate and the form and content of the application for phytosanitary certificate (Official Gazette of RM no. 113/10), including a new phytosanitary certificate according to the European requirements and it is extensively protected,
- Rulebook on the method and procedure for phytosanitary inspection of plants, plant products and other items and objects on entrance spots into the Republic of Macedonia (Official Gazette of RM no. 111/2010),
- Rulebook on the method of phytosanitary inspection during import of shipments included in List V part B Section 1 (Official Gazette of RM no. 131/2010),
- Rulebook on the measures and method of implementation of the measures for eradication or removal of harmful organisms and measures and method of implementation of disinfection, fumigation or deratization of harmful organisms (Official Gazette of RM no. 131/2010),
- Rulebook on the method of keeping records, method of implementation of the control of the plant health, content and method of informing about the data on the production, processing, trade with plants, plant products and other items and objects (Official Gazette of RM no. 131/2010),
- Rulebook on the detailed criteria for identification of small producers or processors and local markets (Official Gazette of RM no. 131/2010),

- Rulebook on time periods and method of phytosanitary inspections of plants, plant products and other items and objects included in List V Item A Section 1 and List V Part A Section 2 (Official Gazette of RM no. 131/2010),
- Rulebook on the conditions for movement of shipments of plants, plant products and other objects and items listed in List V Part A Section 2 Official Gazette of RM no. 131/2010),
- Rulebook on plant passports (Official Gazette or RM no. 131/2010).

3. Agrochemistry sector

Plant protection products and fertilizers

In 2010, a registration of the plant protection products was performed due to implementation of the new law and preparation of the process of registration and re-registration according to the Law, deriving from the EU Directive 91/414 EEC. The number of issued licenses for import of plant protection products imported in the Republic of Macedonia by authorized representatives was 142. In 2009, the legal entities dealing with retail sale of plant protection products in specialized shops (agricultural pharmacies) were registered. A total of 282 agricultural pharmacies were registered and the obligation for re-registration in 2010 was realized by 57 entities. There are 6 registered domestic producers of protection products, authorized wholesale importers 10 and retail traders 71 and wholesaler 3. There are a total of 527 registered plant protection products.

Import of plant protection products by groups (in tons)

Products	2006	2007	2008	2009	2010
Insecticides	194	176	413	177	220
Fungicides	615	625	707	483	548
Herbicides	239	354	311	212	265
Rodenticides	4	/	2	9	35
Acaricides	15	/	/	/	/
Total	1.067	1.155	1.432	882	1.068

Source: MAFWE, Plant Protection Administration

The registration of new fertilizers is kept by the types (organic, inorganic, soil enhancers, bio-stimulators). One producer was registered in 2010.

Import of artificial fertilizers (in tons)

Product	2006	2007	2008	2009	2010
NPK	26.393	44.460	24.496	23.084	27.000
KAN	18.463	17.231	102.289	19.320	17.000
Superphosphate	82	1.097	1.029	143	
Urea	11.793	11.102	1.059	10.412	5.600
Foliar fertilizers	358	/	/	/	230
Liquid mineral fertilizers	78	/	/	/	25
Total	57.167	73.890	128.874	52.960	49.855

Source: MAFWE, Plant Protection Administration

3.1. Phytosanitary inspection

Starting from 2009, the Phytosanitary Inspection is within the State Agriculture Inspectorate and it is involved in the system for monitoring and enforcing of the measures for prevention of outbreak, spreading and suppression of the harmful organisms. It performs phytosanitary inspections of shipments of plants and plant products, plant protection products, artificial fertilizers for import, export, re-export and transport.

According to the Law on Plant Health, a phytosanitary laboratory has been established to diagnose and determine harmful organisms, analyze the physical and chemical properties of the plant protection products, analyze the active material as well as perform biological investigations in certain areas of the phytosanitary legislation.

4. Seed and Planting Material Administration

Seed and Planting Material Administration was established in 2001 and its basic goal is to control the production of certified seed and planting material produced in RM and to control the seed and planting material for agricultural plants imported in our country.

The Seed and Planting Material Administration is an authority within MAFWE and has the following competences:

- Control of production, preparation for market, import and export of seed and planting material for agricultural plants;
- Control and post-control of seed plantations;
- Recognizing, approving and protecting varieties of agricultural plants;
- Keeping definitive samples of seed and planting material in Gene Bank;

The Administration has the following three departments:

- Department for recognition, approval and protection of varieties,
- Department for control and post-control of seed plantations; and
- Gene Bank Department

The Seed and Planting Material Administration, has identified and precisely stated its planned activities and tasks deriving from the legal regulations in the area of seed and planting material in the **2010-2012 Strategic Plan**.

In 2010, the Administration has implemented a procedure to amend the Law on Seed and Planting Material for Agricultural Plants (Official Gazette of RM no. 171/2010). These amendments to the Law adopted the European common catalogue of varieties of agricultural plant species and the import approvals for seeds and planting material have been removed meeting the principles of the European Commission for agriculture and fishing. This amendment streamlined the import and trade with seed and planting material in the Republic of Macedonia.

The following rulebooks were adopted according to the above mentioned Law:

1. In the area of varieties recognition – Rulebook on the procedures and methods for testing of difference, uniformity and stability of the varieties (DUS test) of agricultural plants (Official Gazette of RM no. 110/2010). This rulebook was issued because of the need to regulate the procedures and methods for testing of the difference, uniformity and stability of the varieties implemented in field and in laboratory.
2. In the area of registration and reporting of the varieties in the National varieties list – Rulebook on the form and content of the request for extension of the registration of the variety in the National varieties list, as well as the method and procedure for extension of the registration (Official Gazette of RM no. 137/2010) which is harmonized with EU Directive 2002/53/EC. This rulebook prescribes the procedure for extension of the registration of variety in the National varieties list, as well as the form and content of the application for extension of the registered variety in the National variety list.

The following rulebooks were issued in 2010 according to the Law on Selection Rights (Official Gazette of RM no. 52/2009):

1. Rulebook on the form, content and procedure for submission of application for granting selector's right as well as the form, content and method of keeping of the register of selector's right (Official Gazette of RM no. 134/2010).
2. Rulebook on the composition and method of operations of the Commission for protection of plant genus and types of agricultural plants (Official Gazette of RM no. 134/2010).

The following agreements for public authority were signed in 2010 in the field of seed and planting material:

- Public authority agreements between the Ministry of Agriculture, Forestry and Water Economy and the authorized legal entities for testing of seed and planting material varieties;
- Public authority agreements between the Ministry of Agriculture, Forestry and Water Economy and the authorized legal entities for control and post-control of seed and planting material,
- Public authority agreements between the Ministry of Agriculture, Forestry and Water Economy and the authorized legal entities for expert control of the production of seed and planting material; and

- Public authority agreements between the Ministry of Agriculture, Forestry and Water Economy and the authorized laboratories which have Gene Banks for keeping and preserving seed and planting material from divergent populations, autochthonous species and definitive samples of recognized varieties recorded in the National varieties list.

In 2010, the Seed and Planting Material Administration has implemented the planned activities according to the Law on Seed and Planting Material for Agricultural Plants and has realized the following activities:

- Issued documents for registration of suppliers of seed and planting material and issuing import authorizations:
 - 559 import authorizations for seed and planting material from agricultural plants;
 - 136 decisions for registering in the Register of suppliers of seeding material kept by the Administration;
 - 99 decisions for registering in the Register of supplier of planting material kept by the Administration
- 2) The following was realized in the procedure for testing, approval and recognition of new varieties of agricultural plants:
 - 30 new tobacco varieties have been recognized and published in the Official Gazette of R. Macedonia and recorded in the National varieties list.
 - 81 varieties of agricultural plants have applied 2010 for testing and registration in the National varieties list, out of which 39 new varieties and 42 extensions of varieties, they were planted in experimental fields and after the data are gathered, they will be recognized and registered in 2011.

The Administration has issued 77.000 labels for certified seed. This activity was implemented in order to have better control and monitoring of the quality of the seeding material produced in the Republic of Macedonia and recording of the production of certified seeding material which is marketed.

In the production year of 2009/2010, the suppliers for production of seeding material have applied to the Administration for areas for expert control for production of seeding material of the following crops:

- Wheat on an area of 4,002.81 ha;
- Barley on an area of 1,218.99 ha;
- Triticale on an area of 159.00 ha;
- Fodder peas on an area of 27.60 ha;
- Sainfoin on an area of 2.14 ha,
- Alfalfa on an area of 44.00 ha; and
- Soy beans on an area of 50.36 ha.

The processed data show that the reported areas for production of seeding material yielded 5000 tons of seeding wheat, 1000 tons of seeding barley and 120 tons of seeding triticale.

5. State phytosanitary laboratory (SPL)

The State phytosanitary laboratory was established within the Ministry of Agriculture, Forestry and Water Economy with a status of a bureau, in order to perform specialized laboratory test on plants, plant products and other objects and items in laboratory in order to diagnose and determine the harmful organisms, biological organisms, biological testing, testing of physical and chemical properties of the plant protection products, analysis of the active mater, analysis of seed and planting material.

The legal foundation for establishment of SPL was provided in article 78 of the Law on Plant Health, published in the Official Gazette of the Republic of Macedonia (29/05) and the equipment was provided from CARDS 2001 program donation.

The laboratory tests were performed according to the International protocols for identification and diagnostic of quarantine and non-quarantine organisms. The physical and chemical properties of the plant protection products and analyses of active substance were performed and it is worth noting that in addition to the health status, the variety purity of the plants will be tested using molecular techniques.

Seven CIPAK methods for identification of the content of active substance in the plant protection products (glyphosat, propiconazole, benomyle, methomyl, dimethoate, novaluron, alfcypremithrin) were identified. Analyses of 23 samples of the plant protection products containing these active substances were performed.

The following laboratories are in the structure of SPL:

- Bacteriology laboratory;
- Micrology/phytology laboratory;
- Virology laboratory;
- Nematology laboratory;
- Entomology laboratory;
- Seed and Planting Material Department.

6. State Agriculture Inspectorate

In 2010, the State Agriculture Inspectorate has performed its activities of inspection supervision through control over the implementation of the provisions of the laws and secondary regulations in the areas of agriculture, rural development, fishing and aquaculture, plant health and plant protection products. The controls were performed in legal entities, public enterprises, public scientific institutions, citizen associations and individuals performing activities in these areas. The inspectorate also participates in the preparation and enacting of the laws and secondary regulations in the area of agriculture, which are in the scope of this inspection authority.

In 2010, the State Agriculture Inspectorate continues to resolve the reports, complaints and proposals, submitted by state administration authorities, public institutions, legal entities, associations and individuals as well as by other authorities. Out of the total number of submitted complaints, 138 complaints have been acted upon, while 18 were sent to another competent authorities and 1 was sent to the Ombudsman.

The 2010 Inspectorate's Work Program paid special attention to the implementation of the Program for Financial Support of the Agriculture, the Program for Incentives and Development of Organic Agricultural Production, the Program for Financing of the Activities in the Primary Tobacco Production.

The State Agriculture Inspectorate performed the inspection supervision in 2010 through controls and reviews in the production and foreign and domestic trade of agricultural products of plant origin, organic products of plant origin, animal feed of plant origin, seed and planting material for agricultural plants, plant protection products, fertilizers, wine, poppy, tobacco, fish, raw materials. It performed its activities through control of the business premises, facilities and equipment where products are processed, finished in all phases and stored, control of the farm land, agricultural plantations, control of the illegal sales points and green markets, restaurants, markets, shops as well as control of fishing areas, fishing territories, concessioners of the fish fund and in time of fishing ban.

Control and review in the foreign trade on the border crossings applied to the shipments in import, export, transit and re-export by the state phytosanitary inspectors through the established information one stop system – EXIM, as well as phytosanitary control of the shipments of plants, plant products and other items and objects, plant protection products and fertilizers.

Results achieved in 2010

The agriculture inspection has performed its tasks through supervision and control of 10,683 legal entities, out of which 10,432 are extraordinary supervisions and 251 control supervisions and 9,984 inspection supervisions in natural persons, out of which 9,888 extraordinary supervisions and 96 control supervisions, spending a total of 8,611 days in inspection control.

In 2010, the state agriculture inspectors have performed 20,677 controls and issued 565 resolutions for removal of irregularities found and stopping of illegal practice. Out of a total of 565 resolutions, 385 were for legal entities and 180 for natural persons.

A total of 606 misdemeanor procedures have been instigated before the competent courts for incompliance with the legal provisions, out of which 92 were against legal entities and 514 against natural persons.

For the irregularities found, incompliance with the laws and secondary regulations and damage caused to RM, the Ministry of Agriculture, Forestry and Water Economy, the State Agriculture Inspectorate has submitted 10 criminal charges to Mol and Basic Public Prosecutors' Offices for committed crimes.

In the reporting period for the previous year, based on the requests for instigation of misdemeanor procedure submitted in 2008, 2009 and 2010, resolved in 2010 by the competent courts, fines in a total amount of MKD 6,916,167.00 were imposed and based on payment orders and invitations for payment of fines a total amount of MKD 2,137,088.00 was realized and a total of MKD 9,274,535.00 was collected to the Budget from these two bases.

The controls included review of 2,360 tons of various **seeds**, 1,714,662 pieces of fruit and wine **planting material**, 3,181 tons of **fertilizers**, 1,923 tons **of animal feed**. In order to determine the quality of the seed

material, fertilizers, fodder and wine, the inspectors have taken a total of 2,163 samples given to laboratory investigations.

Due to incompliance with the provisions of the Law on **Fishing and Aquaculture**, a total of 1,462 kg of various types of fish have been repossessed and a total of 4,151 pieces of various fishing tools, equipment, means and boats.

In the **wine sector**, the control was performed in the 86 registered wine cellars, starting from the purchase of the wine grapes all the way to produced and exported wine and 4,428 samples were taken and a total of 4,797 quality wine certificates and a total of 345 quality alcoholic beverages and musts were issued.

In the control of 13 (thirteen) **customs terminals**, controls of a total of 7,674 various shipments were performed. Out of the total number of shipments, the following controls were performed:

- 2,344 shipments of animal feed, in quantity of 89,067 tons;
- 2,377 shipments of oil crops, in quantity of 2,231,866 tons;
- 423 shipments of fruit, vegetables and coffee or 8,084 tons;
- 1,917 shipments of fertilizers, the imported quantity is 95,346.64 tons and mulch 1,411 tons;
- 333 shipments included seed material, in quantity of 1,038 tons, 1,225,081 pieces of plants and grafts, as well as 474 tons of compost;
- 221 shipments of cut and planter flowers and decorative plants, with 1,048,477 pieces; and
- 59 shipments of wine, alcoholic beverages and vinegar or a total of 496 tons of wine and wine distillates.

The state phytosanitary inspectors, according to the Law on Plant Health, the Law on Seed and Planting Material for Agricultural Plants, the Law on Animal Protection Products and the Law on Fertilizers, in 2010, performed phytosanitary controls on import, export, re-export and transit of various shipments of plants, plant products and other items and objects, plant protection products and fertilizers. Phytosanitary inspections were performed at nine border crossings and four loading places on the territory of the Republic of Macedonia, with a total of 86,385 controls of plant, plants products and other objects and items shipments or in weight, 1,139,034 tons, wooden material in a quantity of 160,320 m³ and 17,714,928 pieces of planning material. The revenues for the Budget of RM from phytosanitary controls were in amount of MKD 73,897,714.00. In 2010, 35 shipments were returned from export.

Analyzing the operations of the State Agriculture Inspectorate in 2010, it was found that this inspection authority is successful according to its results since compared to 2009, the number of controls has increased by **21%** and the number of resolutions by **0.5%** as a result of the increased supervision and timely revealing of the mistakes made as a result of incompliance with the laws and closer regulations.

VIII. SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES – FARM LAND, FOREST AND WATER

1. Farm land

Sector for registration and management of state owned farm land

According to the data received from 33 local offices of MAFWE, the total state owned arable land on the territory of the Republic of Macedonia is 197,764 ha. The sector for registration and management of farm land is responsible for the successful management of the distribution of the state owned farm land. In 2010, this sector had 21 staff in the following 5 departments: exchange department, management department, promotion department, registration department and LPIS department.

Overview of state owned farm land users

Category User	2006		2007		2008		2009		2010	
	Users	Area (ha)	Users	Area (ha)	Users	Area (ha)	Users	Area (ha)	Users	Area (ha)
Legal entities	16	4,169	452	4,500	19	100	833	5,871	1,044	6,200
Individual farmers	24	492	774	5,808	34	382				
Usufructuaries	481	3,701	41	204	9	91	98	750	16	91
Natural persons	-	-	-	-	-	-	-	-		
Total	521	8,362	1,226	10,512	62	573	931	6,621	1,060	6,291

Source: MAFWE

The plans of the Sector for registration and management of farm land in 2011 include:

- Realization of 10 out of 10 envisaged calls for lease of state owned farm land in total area of 8,000 ha.
- Realization of 10 out of 10 envisaged calls for lease of state owned farm land.
- Implementation of Support of the management of the state owned farm land project, in cooperation with FAO.
- Implementation of the Stimerald – Strategy for institution building and support of the Macedonian efforts for comprehensive rural development project. The basic goal of the project is preparing a strategy for reparing and operative program as an addition to the National Agriculture and Rural Development Strategy, as well as institutional strengthening.

2. Forestry – forestry and hunting

2.1. General characteristics of the forestry sector

According to article 56 of the Constitution of the Republic of Macedonia, the forests are goods of general interest and have special protection. Forests as natural heritage, in addition to economic have a significant social and general benefit functions. All the activities for forest economy (growing, use, protection) are regulated in the Law on Forests (Official Gazette of RM no. 64/09, 24/11 and 53/11).

Forests i.e. forest land in the Republic of Macedonia cover 1,159,600 ha (45% of the total territory), out of which the total forest area is 955,300 ha (37% of the territory).

Compared to 1970, the area has increased by 140,000 ha through afforestation of free and erasive lands mainly for protection.

According to the origin, the forests are classified into:

- High forests – covering less than 30% of the total forest area and have a 61.6% share in the total wood stock; and
- Low forests – covering 70% of the total forest area and have a 38.4% share in the total wood stock.

By composition, 82% of the forests are broadleaf forests, 12% conifer forests and 6% mixed forests. The total wood mass is 74,343,000 m³ and the total annual growth is 1,830,000 m³ with an average annual growth of 2.02 m³ per hectare. The planned annual tree mass for cutting is around 1,300,000 m³.

State owned forests cover 90.14% of the total forest area, and they have 92.2% of the wood stock. Private forests cover 9.86% of the total forest area and have 7.8% of the total wood stock. State owned forests are managed through PE "Makedonski Shumi" with 30 branches, forest economies and other legal entities that grow and protect the special purpose forests.

2.2. Management and running of forest resources

According to the Strategy for sustainable development of the forestry in the Republic of Macedonia with Action Plan 2007-2009, adopted by the Government of RM, the Sector for Forestry and Hunting in the Ministry of Agriculture, Forestry and Water Economy is responsible to create and implement policies for sustainable forest resources management. The afforestation of free and erosive land, care for the forest trees with spacing, melioration of degraded forests, restoration of forest areas that have been under fire, providing forest planning material for private land afforestation etc. are performed according to the Program for expanded reproduction of the forests.

There are 50 nurseries in the Republic of Macedonia that produce forest planting material for afforestation and horticultural arrangement and greening, out of which 20 nurseries are owned by PE "Makedonski Shumi".

Realized measures and activities according to the Program for extended reproduction of the forests

Activity	2006	2007	2008	2009	2010	Вкупно
1. Afforestation of free and erosive land (ha)	824	808	380	473	587	3072
2. Care about forests and forest plants with spacing (ha)	1049	726	540	764	503	3582
3. Melioration of degraded forests (ha)	0	0	99	122	0	221
4. Restoration of forest areas that have been under fire (ha)	138	352	315	0	40	845
5. Providing forest planting material for afforestation of privately owned land (number of plants)	462,264	280,061	11,210	139,971	0	893,506
6. "Tree Day" – spring/autumn (number of planted plants)	/	/	5,222,560	7,913,915	652,017	20,788,492

Source: MAFWE – Forestry and Hunting Sector

The management of the state owned forests is performed by PE "Makedonski Shumi" which includes 30 branches – forest economies and other legal entities which grow and protect forests for special purposes. Safeguarding of the state owned and privately owned forests against illegal activities and other negative factors is performed by the forest police with 370 forest policemen in 2010, as well as the forest guarding service of PE "Makedonski Shumi".

2.3. International activities regarding forestry

- Continuing the activities within FOPER project, supported by the European Forestry Institute from Finland;
- Permanent update and prepared National report for forest resources assessment in RM;
- Participation in the work of the expert team about the forestry policy in the South East Europe and Central Asia countries in UNECE/ FAO;
- Participation in data collecting about the influence of climate changes on the forests – UNDP project.
- Participation in data collecting and preparation of a report for the FOREST EUROPE conference.

2.4. Hunting

There are 250 hunting ranges in the Republic of Macedonia, out of them 105 are for big game, and 145 for small game. Out of them, 5 are state owned – four for big game: “Jasen” and “Jasen I” – Skopje, “Polaki” – Kochani and “Leshnica” – Tetovo and one for small game – “Trubarevo” – Skopje which is for teaching and scientific purposes.

3. Water economy administration

Water economy is a complex set of activities of public interest which are vital for the performance of the activities of the other industries.

Water economy as an industry that manages, plans and uses the water resources is a key area for the realization of all strategic development plans of the state are realized.

This industry is directly connected with the agriculture and food production, providing healthy potable water for the population, provision of technological water for all industries, regulating the water regime, protection against floods and other harmful effects of waters, anti-erosion protection, and protection of the water quality or it is usually connected with all activities undertaken by humans.

Water management comprises measures and activities for rational and efficient use of water, sustainable development of the water resources, water protection and protection against their harmful effects.

In conditions when there is not enough water for various purposes, a strategic goal of our country is to provide access to sufficient quantities of potable water, food production and for the needs of agriculture, industry and other purposes.

3.1 Law on Water Economies and Law on Water Communities

The Law on Water Economies lays the legal framework in the area of water delivery, use and maintenance of the large multi-purpose and more complex hydro melioration systems for institutionalization and establishment of the water economies as specific, special legal entities that are autonomous legal entities managed by the water users through the Water Users Board as a management authority. The legal status of the operation of the water economies is determined by the economic logic and the principle of self-sustainability through generation of revenues from the fee for the quantities of delivered water.

The Law on Water Communities institutionalizes the water communities as entities for use of the irrigation water and according to the needs of the soil in certain areas, in the organization of drainage. They are organized and established on voluntary basis which corresponds to the economic interest of the water community members. In the water use, they are consumer in relation to the entity that delivers water and/or drainage service on the territory where the water community is organized.

3.2 Implementation of the laws

In order to realize the envisaged water economy reform, starting from 2005, liquidation procedures were instigated for the illiquid water management organizations. A total of twenty one water management organizations were in liquidation procedure, and in six of them the liquidation procedure was closed.

Parallel to the liquidation procedures, procedures for establishment of new water economies were initiated. The basic principle for establishment of the water economies was the characteristic of the system/systems which would be entrusted to management and use, systems with large dams, systems with several purposes, serving various categories of water users, systems with territory exceeding 5,000 ha, systems that need engagement of professional staff and functioning and system which is economically and financially sustainable in terms of the services it can provide and collect i.e. out of which it will be able to be serviced.

Twelve water economies were established in the Republic of Macedonia.

Water economies in the Republic of Macedonia

	Region (HMS)	Water economy
1	Tikvesh	WE “Tikvesh” – Kavadarci
2	Bregalnica	WE “Bregalnica” – Kochani
3	Skopje	WE “Skopsko Pole” - Skopje
4	Prilep	WE “Prilepsko Pole” - Prilep
5	Berovo	WE “Berovo” - Berovo
6	Kumanovo	WE “Kumanovsko - Lipkovsko pole” - Kumanovo
7	Strumica	WE “Strumichko Pole” - Strumica

8	Radovich	WE "Radovichko Pole" - Radovich
9	Bitola	WE "Bitolsko pole" – Bitola
10	Polog	WE "Polog "-Gostivar
11	Gevgelija	WE "Juzhen Vardar" - Gevgelija
12	Resen	WE "Prespa" - Resen

Source: MAFWE, 2011

The process of **establishment of water communities** started at the end of 2004. By the end of 2010, a total of 144 water communities were registered, covering an area of 68,230 ha. Bankruptcy procedures were opened in seven water communities due to unpaid water fee to the water economies on the territory they operate.

The following table shows the coverage of the hydro melioration systems in the Republic of Macedonia with water communities.

Registered water communities in the Republic of Macedonia

	Region (HMS)	Number of water communities	Area (ha)	Water communities in bankruptcy	Area (ha)
1	Bregalnica	25	20,502	3	3,023
2	Tikvesh	40	15,642	4	837
3	Polog, Gostivar	13	4,689	-	-
4	Polog, Tetovo	23	8,995	-	-
5	Strushko pole	6	2,306	-	-
6	Kichevsko pole	2	170	-	-
7	Strumichko pole	14	6,133	-	-
8	Ohridsko pole	2	962	-	-
9	Bitola	1	1,030	-	-
10	Skopje	2	494,2	-	-
11	Gevgelija-Valandovo-Dojran	7	2,842	-	-
12	Debar	1	1,008	-	-
13	Prespansko pole	3	2,412	-	-
14	Kumanovsko pole	1	337	-	-
15	Radovichko pole	2	328	-	-
16	Berovo	2	380	-	-
	Total:	144	68,230	7	3,860

The management and use of the irrigation infrastructure is transferred to 47 water communities.

3.3 Hydro-melioration systems for irrigation and drainage

Irrigation systems

The water economy basis assesses that out of the total arable farm land of around 577,000 ha, with the exiting hydro-melioration systems and if new hydro-melioration systems are built, reasonably around 400,000 ha or 69% of the total arable farm land could be irrigated.

According to the technical documentation, used for construction of the systems, it was envisaged to provide irrigation of 163,693 ha fertile land, but the already constructed basic structures (dams, storage capacities, pump stations, main channels etc.) in moderately dry year can provide irrigation to 144,894 ha farm land.

According to time, dynamics, sources of financing and other construction conditions, three periods in the construction of hydro-melioration irrigation systems are characteristic: until 1958, between 1958 and 1975 and since 1975. In the first period, 27 HMS have been constructed, covering 19,026 ha, in the second period, systems covering 68,448 ha and 46 smaller systems have been constructed, providing irrigation to 39,514 ha. In

the third period, 14 new systems were constructed as well as 25 systems with small storage capacities. These systems provided irrigation to 40,918 ha.

Summary table of irrigated areas in 2010

	Region/HMS	Area (ha)
1	Bregalnica	6,118.7
2	Tikvesh	7,287.0
3	Polog	289.0
4	Strezhevo	3,347.0
5	Ohrid, Struga	132.4
6	Prespansko pole	-
7	Radovishko pole	741.2
8	Strumichko pole	1,122.5
9	Gevgelisko-Valandovsko	744.6
10	Kumanovsko-Lipkovsko	1,093.2
11	Prilepsko pole	1,460.0
	Total	22,343.3

Maintenance of the basic facilities of the hydro-melioration systems has an important role in the realization of the irrigation and drainage plans. Since most of the irrigation systems were built a long time ago and due to long lasting lack of maintenance, the situation of the water economy structures in these systems is very poor, notwithstanding the systems "Bregalnica", "Tikvesh" and "Polog".

The poor situation of the irrigation and drainage systems is the main reason for the poor financial situation of the water economy enterprises and organizations who were managing the systems. In 2011, the collection rate of the water fee was 65.2%.

Drainage systems

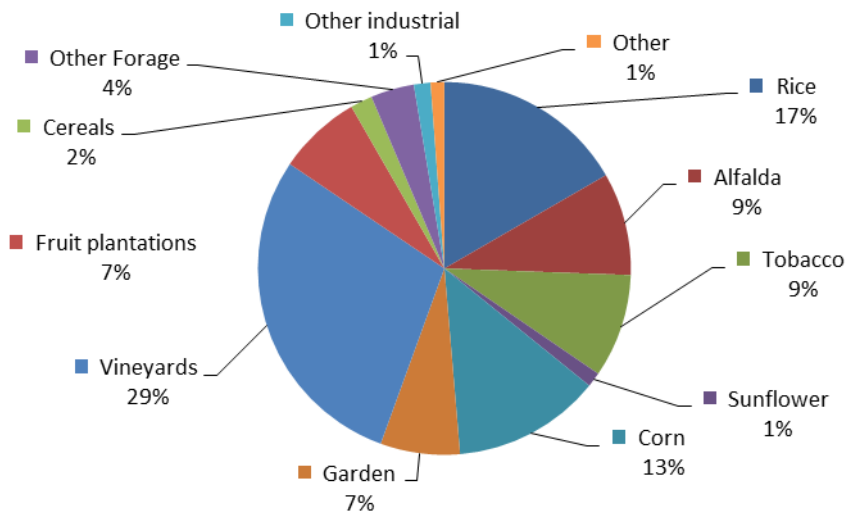
The hydro-melioration systems in the Republic of Macedonia were constructed in order to protect and drain the farm, communal and other land and regulation of the water regime, protection of settlements, traffic routes etc.

Drainage systems cover 82,195 ha. The construction of these systems was in two periods. During the first period, until 1958, drainage systems were constructed for 1,052 ha and in the second period since 1958, drainage systems for 81,143 ha were constructed, or in total 82,195 ha. Drainage systems in "Skopsko Pole" drain 6,600 ha, in "Pelagonija" – 30,000 ha, in "Strushko Pole" – 2,680 ha, in "Strumichko Pole" – 9,000 ha, in "Kochansko Pole" – 6,000 ha, in "Ovche Pole" – 1,700 ha and in "Prespansko Pole" – 1,800 ha.

Structure of irrigated crops in the Republic of Macedonia

Crop/year	Rice	Alfalfa	Tobacco	Sunflower	Corn	Garden	Vineyards	Fruit plantations	Cereals	Forage	Otherw industrial	Other	Total
2010	3,710	1,981	2,000	283	2,875	1,533	6,435	1,676	424	839	321	262	22,343
2009	2,702	2,875	847	372	2,938	1,616	6,818	2,466	681	737	397	151	22,603
2008	2,404	2,907	770	242	4,079	1,920	6,211	1,501	436	/	/	1,100	21,570
2007	2,556	2,807	921	186	3,739	1,468	7,155	1,371	1,448	193	/	317	22,161
2006	2,440	2,943	917	264	3,920	1,956	3,592	1,194	420	369	/	319	18,334

Share of irrigated crops in the Republic of Macedonia



3.4. Water economy capital projects

Capital investments in water economy are in the reconstruction and construction of the irrigation systems and construction of dams, which in addition to loan and donation financing use funds from the Budget of the Ministry of Agriculture, Forestry and Water Economy within the framework of the annual work programs of the Water Economy Administration. The funds earmarked for capital investments are distributed to the following projects:

Capital projects in water economy

Investment description	Planned irrigated area	Total investment in million euro
HS Zletovica (first phase)	4,500	105
HS Lisiche (second phase)	4,100	33
South Vardar (second phase – planned amount)	3,900	21
HS Orizarska reka (planned amount)		45
Total:	12,500	204

The irrigation project for the South Vardar Valley is about reconstruction and modernization of the irrigation systems of the farm land in the south region of the river Vardar. The goal of this project is sustainable increase of the agricultural production and productivity using the irrigation systems as well as improvement of the living conditions of the farm population in the South Vardar Valley. During 2010, all the preparatory operations for commencement of the second phase of the Paljurci irrigation system construction project were performed.

The project for “Zletovica” hydro system is a multi-purpose system and provides water supply to the population and industry in the municipalities of Kratovo, Probishtip, Shtip, Sveti Nikole, Zletovo, Karbinci and Lozovo, irrigation of 4,500 ha arable land, electricity generation and flood protections.

The first phase of the project – water supply, in 2010, 98% were finished and it was realized in four packages: PACKAGE 1 – Access road Zletovo – Knezhevo Dam, PACKAGE 2 – Knezhevo Dam with auxiliary facilities, PACKAGE 3 – intake and pipeline for water supply of Shtip and Sveti Nikole and PACKAGE 4 – automatic management, command and measuring (SCADA system)

Lisiche hydro-melioration system is multi-purpose structure. It will be used for water supply of the city of Veles population, water supply of the surrounding villages around the system, supply of the industry with technological water, irrigation of 4,100 ha of fertile farm land, revitalization of the lake Mladost, providing biological minimum of the river Topolka and improving the micro climate in the region. During 2010, construction works and final works around the pipeline to Lake Mladost were finished to section of 1700 m, out of the total 2080 m envisaged.

HS Orizarska reka

The construction and supervision of the works of implementation of additional engineering and geological, geotechnical and geomechanical investigation work for completion of the bases for embankment on the dam Rechani on Orizarska reka were concluded in 2010.

Program of the water economy administration

The following works were performed with the realization of the program of the Water Management Administration in 2010:

- Start of the preparation of basic design for reconstruction of part of the main channel Radiovce – Bistrica in village of Ratae within HMS Polog.
- Drainage channels and riverbeds in total length of 62.00 km were cleaned.
- Closures on the main pipelines in HMS Prilepsko pole were replaced.
- With support of ASAP project, 11 water communities were registered in the regions of Strumica, Radovish, Kumanovo, Skopje and Prilep and trainings on their operations were realized.
- Technical documentation for Konjsko dam with auxiliary facilities was prepared.
- Two new water economies were established – water economy “South Vardar” – Gevgelija and water economy “Prespa” - Resen

4. National Hydro Meteorology Service

4.1 Climate areas in the Republic of Macedonia

According to the experiences of most climate classification and the adequate approach for the territory of the Republic of Macedonia we distinguish the following homogenous climate areas:³

1. Sub-Mediterranean area (50 – 500 m)
2. Moderately continental Sub-Mediterranean area (up to 600 m)
3. Hot continental area (600-900 m)
4. Cold continental area (900-1100 m)
5. Submountain continental mountain area (1100-1300 m)
6. Mountain continental area (1300-1650 m)
7. Sub-Alpine mountain area (1650-2250 m)
8. Alpine mountain area (under 2250 m)

Sub-Mediterranean area covers small areas which are completely agricultural. It is limited to the south part of the Vardar Valley (Gevgelija – Valandovo region to Demir Kapija), in Dojran and south west part of Strumica and is characterized with most favorable climate and pedologic conditions for production of early vegetables, vineyards, fruits etc.

Continental – Sub Mediterranean area. Together with the first zone, the continental – Sub Mediterranean area covers an area of 897.00 ha or 34.9% of the territory of the Republic of Macedonia. It is situated in the parts next to the Vardar area, from Demir Kapija to the north border (Demir Kapija, part of Tikvesh, Veles and Skopje valleys), smaller parts around river Pchinja, parts around lower and mid river Crna, Bregalnica and its tributaries. It is characterized with wet winters and hot, dry summers with favorable climate and soil conditions for agricultural production.

Hot continental area covers an area of around 704,000 ha or 27.4% of the area of our country. It is situated in parts of Polog, Kichevo, Debar, Struga, Ohrid and Prespa valleys as well as Pelagonija. It is a transition region between Mediterranean and continental climate i.e. area dominated with warm continental climate with weak influence from the Mediterranean (manifested through the Mediterranean pluviometric regime). These are areas where cereals are most frequent crops, fruits and vineyards.

Cold continental area covers an area of 342,000 ha or 13.3% of the area of the state and it covers the lower parts of the mountains where relief is mountainous with geological substrate of compact rocks. According to the climate indicators, this area is colder and wetter than the previous one, dominated by cold continental climate with a certain influence from the mountainous climate.

³ According to Gj. Filipovski, R. Rizovski and P. Risteovski in Characteristics of the climate and soil zones in the Republic of Macedonia, Skopje, MASA 1996

Submountain continental mountain area covers an area of 250,000 ha or 9.7%. This is the area of the beech tree zone.

Mountain continental area covers an area of 10.4% or 269,000 ha. It is an area of mountain beech forests, distributed on the entire territory of the Republic of Macedonia where the relief is exclusively mountainous.

Sub-Alpine mountain area with an area of 97,000 ha or 3.8% of the country's area with wide distribution of several forest communities mostly conifers (fir, spruce, larch and mugho).

Alpine mountain area is situated on elevations exceeding 2,250 m and has an area of 13,000 ha or 0.5% and there are no forest communities. It is an area of high mountain grass communities on the mountains: Kozhuf, Nidzhe, Deshat, Shar Planina and Jakupica. The share in these regions vary between 500 and 800 mm.

4.2 Agro-meteorology analysis of the weather conditions in the Republic of Macedonia in the period January – December 2010

The analysis of the weather situation and the influence of the weather on the crops in the 2010 production year was performed based on data from the original documentation of the National Hydro Meteorology Service. The agro-meteorology analysis covers 5 stations distributed in various climate zones in the republic, including areas with Mediterranean and modified Mediterranean climate (Gevgelija and Demir Kapija), as well as areas with continental climate (Skopje, Prilep and Shtip).

Out of four meteorological parameters taken as an object of analysis (average monthly maximum air temperatures, average monthly minimum air temperatures, average monthly air temperatures and precipitation quantities in monthly sums), one can see that in the temperatures part this is an average year with small discrepancies from the many years average (1971/2000) which was taken for comparison. What we can see from the tables is that October is colder by 1.6°C in all stations, excluding Skopje where this discrepancy is 2.1°C. Positive discrepancies are bigger and they are in the scope of 0.5°C and 5.9°C in Shtip in November, which basically is the protocol for all settlements. The most frequent positive discrepancy is around 2°C.

The uneven distribution of precipitations remains a problem for this year too. But, the measuring posts record increased rain of 117.8 mm in Demir Kapija, 163.2 mm in Shtip, 230.3 mm in Prilep, 262.9 mm in Skopje and 321.3 mm in Gevgelija where the most notable fact is that only in 6 months they have had average or below average rain quantities, while in the remaining 6 months the rains have been below average by 34 mm. It is also worth noting that the precipitation in Gevgelija was 334.8 mm, and the following month (November) they were below average. The precipitations in February were 168 mm while in the following month (March) it was average. Negative discrepancies regarding the many years average of precipitation were observed in January, May, July and August when the precipitation is more than welcome for maintenance of the agricultural production.

SKOPJE													
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	AVERAGE
Average monthly (MAX)	5.8	8.7	13.4	19.0	23.7	27.9	30.8	33.7	26.2	15.9	16.5	6.9	19.0
Average monthly (MIN)	-0.5	0.7	3.3	8.6	12.2	15.5	17.8	18.2	13.0	7.9	6.7	-0.4	8.6
Average monthly temperature	2.4	4.4	8.0	13.5	17.8	21.4	24.1	25.7	19.0	11.1	11.2	2.7	13.4
Monthly precipitation	28.2	63.7	68.6	63.8	38.6	57.5	53.2	3.5	37.3	143.9	81.0	64.8	704.1
Average monthly	0.6	3.1	7.5	12.6	17.6	21.5	24.1	23.6	19.2	13.2	6.6	1.7	12.6
Precipitations (average)	25.1	31.4	26.9	40.7	40	39.5	39.4	33.1	31.5	39.6	52	42	441.2
Temperature difference	1.8	1.3	0.5	0.9	0.2	-0.1	0.0	2.1	-0.2	-2.1	4.6	1.0	0.8
Precipitation difference	3.1	32.3	41.7	23.1	-1.4	18.0	13.8	-29.6	5.8	104.3	29.0	22.8	262.9
PRILEP													
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	AVERAGE
Average monthly (MAX)	5.0	7.9	12.3	17.2	22.3	25.9	28.2	31.1	23.8	15.3	16.7	8.0	17.8
Average monthly (MIN)	-0.7	0.0	2.0	7.1	10.5	13.6	15.9	16.4	11.6	6.4	6.0	-0.8	7.3
Average monthly temperature	2.0	3.4	6.8	11.9	16.4	19.7	22.2	23.7	17.3	10.2	10.9	3.1	12.3
Monthly precipitation	27.9	71.3	55.2	52.2	44.2	64.7	40.6	34.6	47.4	152.9	69.2	87.4	747.6
Average monthly	0.0	2.2	6.0	10.5	15.5	19.7	21.8	21.5	17.4	11.8	6.0	1.6	11.2
Precipitations (average)	29.8	34.8	37.1	47.6	55.6	42.9	41.0	30.6	41.2	55.1	60.9	40.7	517.3
Temperature difference	2.0	1.2	0.8	1.4	0.9	0.0	0.4	2.2	-0.1	-1.6	4.9	1.5	1.1
Precipitation difference	-1.9	36.5	18.1	4.6	-11.4	21.8	-0.4	4.0	6.2	97.8	8.3	46.7	230.3
DEMIR KAPIJA													
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	AVERAGE

Average monthly (MAX)	8.2	10.9	15.1	20.9	25.9	30.2	33.7	35.7	28.0	17.0	18.7	9.8	21.2
Average monthly (MIN)	0.7	1.1	2.9	8.3	11.6	15.8	17.8	18.9	13.2	8.0	7.6	0.9	8.9
Average monthly temperature	4.6	6	9.1	14.6	19.3	23.0	25.7	27.2	20.4	12.3	13	5.2	15.0
Monthly precipitation	22.5	82.8	71.4	32.2	34.8	40.2	30.8	14.7	32.4	194.2	29.6	68.4	654.0
Average monthly	1.7	4.5	8.5	13.3	18.1	22.6	24.7	24.2	19.9	13.9	7.7	3.1	13.5
Precipitations (average)	43.4	47.8	45.5	49.6	53.8	36.9	31.1	22.1	33.3	50.4	60.0	62.3	536.2
Temperature difference	2.9	1.5	0.6	1.3	1.2	0.4	1.0	3.0	0.5	-1.6	5.3	2.1	1.5
Precipitation difference	-20.9	35.0	25.9	-17.4	-19.0	3.3	-0.3	-7.4	-0.9	143.8	-30.4	6.1	117.8

SHTIP

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	AVERAGE
Average monthly (MAX)	7.2	10.1	13.9	19.1	24.2	28.2	31.1	33.9	27.0	16.8	18.3	8.8	19.9
Average monthly (MIN)	0.6	1.4	3.3	8.5	11.6	15.3	16.9	18.4	12.9	7.7	7.9	0.8	8.8
Average monthly temperature	3.8	5.5	8.4	13.6	18.2	21.5	23.9	25.9	19.5	11.7	12.8	4.5	14.1
Monthly precipitation	14.5	58.1	61.3	55.9	25.8	66.5	34.5	16.6	27.4	136.8	54.8	71.1	623.3
Average monthly	1.1	3.6	7.5	12.3	17.4	21.5	23.7	23.3	19.0	13.3	6.9	2.3	12.7
Precipitations (average)	23.0	27.3	31.0	40.6	53.2	44.6	39.1	33.1	35.2	44.8	50.8	37.4	460.1
Temperature difference	2.7	1.9	0.9	1.3	0.8	0.0	0.2	2.6	0.5	-1.6	5.9	2.2	1.5
Precipitation difference	-8.5	30.8	30.3	15.3	-27.4	21.9	-4.6	-16.5	-7.8	92.0	4.0	33.7	163.2

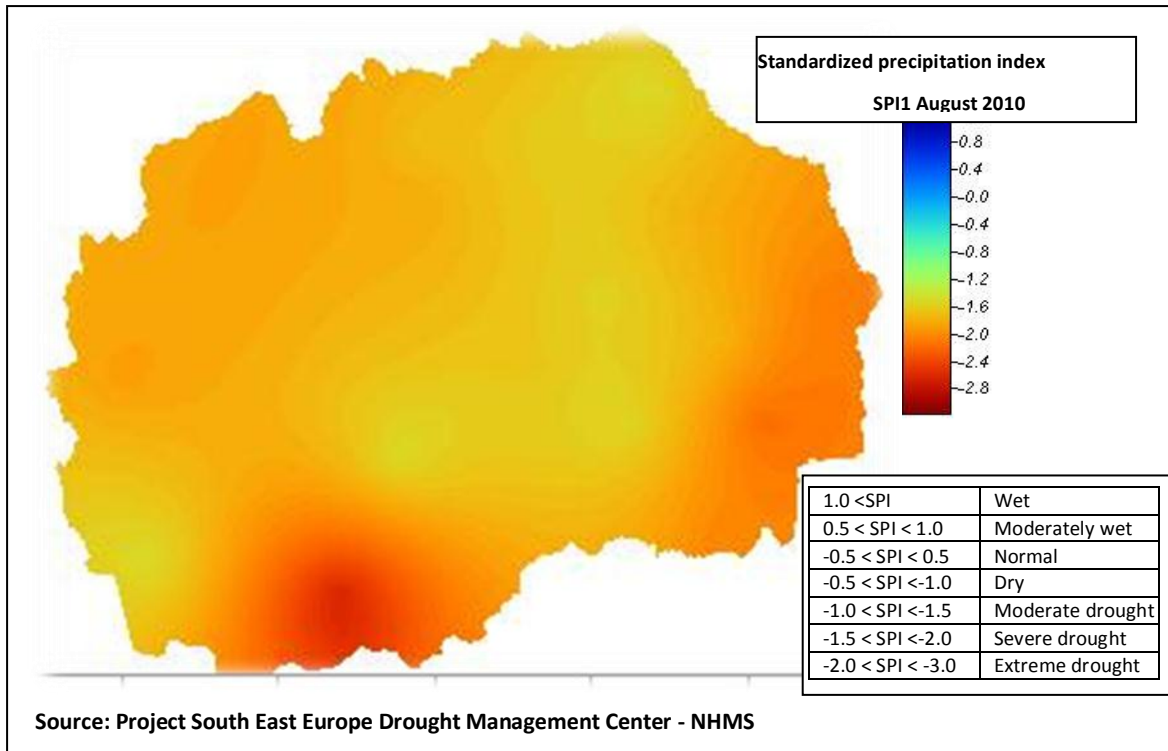
GEVGELIJA

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	AVERAGE
Average monthly (MAX)	8.8	12.1	15.8	21.1	26.2	30.2	33.6	36.4	28.6	17.9	20.2	11.0	21.8
Average monthly (MIN)	2.0	3.2	4.4	9.5	12.3	17.3	19.7	21.2	15.1	9.4	7.6	2.4	10.3
Average monthly temperature	4.9	7.1	9.8	15.3	19.6	23.9	27.0	28.7	21.3	12.8	12.7	5.9	15.8
Monthly precipitation	32.6	168.0	67.6	30.5	85.2	25.1	28.6	0.5	70.4	334.8	52.8	74.8	970.9
Average monthly	3.8	5.6	8.8	13.4	18.5	23.1	25.4	24.7	20.2	14.4	8.8	4.9	14.3
Precipitations (average)	49.5	61.2	57.8	54.3	59.4	42.3	30.5	31.6	33.1	70.1	86.7	73.1	649.6
Temperature difference	1.1	1.5	1.0	1.9	1.1	0.8	1.6	4.0	1.1	-1.6	3.9	1.0	1.5
Precipitation difference	-16.9	106.8	9.8	-23.8	25.8	-17.2	-1.9	-31.1	37.3	264.7	-33.9	1.7	321.3

Source: MAFWE, 2010

Draught monitoring

With the project South East Europe Drought Management Center, the National Hydrometeorology Service, as a representative of the Republic of Macedonia, together with 14 institutions from the region, works on the improvement of the draught monitoring. A part of the project is financed by the European Union and is performed within the Program for transnational cooperation in South East Europe, and another part is co-financed by the Government of the Republic of Macedonia. The final results are expected in 2012 after the conclusion of the Project.



The values of the calculated SPI 1 index for August 2010, on the territory of the Republic of Macedonia, show normal values for Kriva Palanka, Ohrid and Prilep. It was dry in Shtip, there is moderate drought in Skopje, Veles and Mavrovo, severe drought in Gevgelija, Berovo and Lazaropole and extreme drought in Strumica and Bitola. The values generated during the analysis of the entire 2010 i.e. SPI 12, characterize this year as wet.

The summary assessment would be – average year with yields above average as a result of the rains in April which were above average in various places, as well as those from May when there was precipitation of 30-40 mm. The rain contributed for successful irrigation of the seed and start of the phases of ripening of the cereals. The other crops, like spring surrounding crops, and the fruit and vineyard has solid yields on satisfaction of the farmers.

IX. EDUCATION, SCIENCE, KNOWLEDGE TRANSFER

1. Education in biotechnological sciences

The Macedonian education system, which is a responsibility of the Ministry of Education and Science has passed through reforms for modernization of the curriculum and the education activities. In 2004, the Government of the Republic of Macedonia has adopted a National Education Development Program for the period from 2005 to 2015 in order to regulate a comprehensive reform of this area based on the processes of democracy, decentralization, autonomy, pluralism, multi-culture and globalization as well as international knowledge and skills standards and principles of lifelong learning.

1.1 Agricultural vocational schools

In the country, the agricultural, veterinarian, food, forestry and wood processing programs can be found in the state owned vocational schools. Most of the students who attend the agricultural vocational schools are from the rural areas. Out of all enrolled students, 10%-15% fail to graduate due to various reasons.

The following table shows the number of vocational schools in agriculture, veterinarian medicine, food production and forestry and the relevant number of students who have graduated from secondary education. The number of students who have finished vocational secondary education is decreasing from 1,498 students in 2006/2007 school year to 1,139 students in 2009/2010.

Number of students who have graduated from secondary education

School type	2006/2007	2007/2008	2008/2009	2009/2010
	Students	Students	Students	Students
Agriculture (with agricultural and veterinarian)	772	701	816	719
Veterinarian	207	169	59	8
Food production	406	371	204	171
Forestry (with forestry and wood processing)	113	156	248	241
Total 24	1,498	1,397	1,327	1,139

Source: SSO, 2007-2010

1.2 Higher education in agriculture

The Macedonian system of agricultural higher education includes several education institutions: Faculty of Agricultural Sciences and Food – Skopje, Faculty of Veterinarian Medicine – Skopje, Faculty of Forestry – Skopje (all within the University Sts. Cyril and Methodius in Skopje); Faculty of Biotechnical Sciences – Bitola (within the University St. Kliment Ohridski in Bitola); Faculty of Agriculture (within the University “Goce Delchev” in Shtip) and the Center for Polytechnic Studies i.e. Faculty for Food Technology and Food (within the Tetovo State University).

The higher education institutions are in phase of improvement of their studying standards and curricula in order to achieve the European Standards. The Law on Higher Education, amended in 2003⁴ has provided a framework for implementation of the Bologna process principles⁵.

The development system includes cooperation with education institutions from the aspect of strengthening of the study program, student exchange, scholarships for domestic students in further education abroad etc. The education activities of the faculties are mainly financed through the Ministry of Education and Science, and partly from their own revenues.

These changes should provide the necessary number of new specialized professionals who are necessary for the activities of the individual farms, small and medium sized enterprises in the food industry as well as for scientific and research activities in specialized institutions. In the period between 2006/2007 and 2009/2010, the number of students in agricultural higher education has dropped from 3059 students enrolled in 2006/2007 to 2791 students enrolled in 2009/2010. Most of the students are studying at the “Sts. Cyril and Methodius” state university in Skopje,

⁴ Official Gazette of the Republic of Macedonia no. 64/00 and no. 49/03.

⁵ The faculties have implemented a reorganization of their departments, studies, study groups and programs and introduced a credit transfer system implemented in accordance with the European Credit Transfer System (ECTS).

followed by the universities in Bitola and Shtip. Officially, there is no data about the number of students enrolled at the Faculty for Food Technology and Food at Tetovo State University.

Total number of students in the higher education system⁶

Faculty	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010
Faculty of Agricultural Sciences and Food	1057	970	907	826
Faculty of Veterinary Medicine in Skopje	329	302	227	222
Faculty of Biotechnical Sciences in Bitola	835	686	746	632
Faculty of Forestry in Skopje	838	764	781	710
Faculty of Agriculture in Shtip	-	93	304	401
Faculty of Food Technology and Food in Tetovo *	-	-	114	-
Total	3,059	2,815	3,079	2,791

Source: SSO, (2007-2010)

In 2009/2010 school year, 209 teachers and assistants have taught in the field of biotechnical sciences at the universities in Skopje, Bitola and Shtip. There is no official statistics available for the Tetovo State University teaching and assistant staff on the faculties. If we compare the data with the data from 2008/2009, we can notice a drop in the teaching staff in the field of biotechnical sciences by around 7%.

Total number of teachers in the higher education system in 2009/2010 school year

Faculty	Teachers	Assistants	Total
Faculty of Agricultural Sciences and Food	63	18	81
Faculty of Veterinary Medicine in Skopje	20	9	29
Faculty of Biotechnical Sciences in Bitola	20	8	28
Faculty of Forestry in Skopje	34	2	36
Faculty of Agriculture in Shtip	16	19	35
Total	153	56	209

Source: SSO, 2011

The total number of graduated students in the area of biotechnical sciences in 2010 is 264 which is by almost 19% less than in 2009.

Total number of graduated students in the area of biotechnical sciences

Year	Graduated	Year	Graduated
2007	374	2009	327
2008	273	2010	264

Source: SSO, 2011

2. Science and research

According to the social and economic changes priority is given to the development of a production model for improvement of the quantity and quality of the agricultural production.

In addition to the science and research activities on the faculties, research and development institutions which also implement research for support of the agriculture and forestry development include: Institute of Agriculture, Livestock Institute (Integrated to the Faculty of Veterinary Medicine) in Skopje, Tobacco Institute in Prilep and the Hydro-biological Institute in Ohrid. Currently, research institutions have around 300 staff, out of which 40% are with higher education, masters and doctors.

All the institutes are internationally connected and get support from international projects through various donor networks and project programs.

According to article 49 of the Law on Scientific and Research Activities, research institutions are financed from the Budget of the Republic of Macedonia according to the goals and priorities envisaged in the National Program. All public research activities, including agriculture are financed through the Ministry of Education and Science, covering the salaries of the staff with scientific titles and financing programs for scientific activities upon a public call.

⁶ Source: State Statistical Office. The Tetovo State University has available data only for the Polytechnical studies center at the Tetovo State University for 2005/2006 i.e. for the Faculty of Applied Sciences for 2008/2009

According to the Law on Higher Education (article 22), scientific institutes which are parts of the university as its units may perform higher education activity (second and third cycle of university studies) in the scientific area they have been established for, if they are accredited for that types of studies and have a decision for commencement of operations provided in the university's statute.

Institute of agriculture, mainly realizes four activities: scientific and research, educational, publishing and applicative activities. The scientific and research work is directed toward finding technical and technological solutions and application thereof in production. The knowledge acquired about the genetic variability of the domestic populations and the introduced varieties of the most significant field, vegetable, vine and fruit types enable directing of the scientific and research toward creating new high yield and better quality genotypes of the entire agricultural plant production. As a result of the previous selection work, the Institute has created many recognized varieties of field cultures and cooperated in specialist, master and doctor theses as well as extension services to the producers.

The Livestock Institute has developed an electronic marking and monitoring system and in order to extend this activity there is a proposal to establish a central office with computers and database operators in order to enter the details about any farm on regular weekly basis. The institute participates in a 2.5 year research and technology transfer project in order to improve the small farmers' profitability.

Livestock Institute and Faculty of Veterinary Medicine – veterinary laboratories – according to the Law on Veterinary Health, the laboratories of the Faculty of Veterinary Medicine (FVM) work as national designated laboratory that perform laboratory analyses of official controls of the Veterinary Administration. The number of accredited methods by the end of 2010 was 75 (7 in the area of animal diseases, and the reminder in the other areas – biology, microbiology, biochemistry, food products, drinks, water, and fodder). The analyses are performed in the following laboratories: Food Institute (Food microbiology laboratory, Food quality laboratory, Residues and contaminants laboratory, Milk quality control laboratory) and Veterinary Institute (Serology laboratory, TSE laboratory) by relevantly trained personnel. The laboratories are completely reconstructed and well equipped with calibrated equipment and controlled environment. The number of staff performing the tests according to the accredited methods is sufficient. In future, the number of staff may be increased, according to the needs. Continuity of the quality system is provided through a regular internal and external audit. The implementation of MKS ISO/IEC 17025: 2006 standard and the accreditation of FVM guarantee the clients that the results of the tests are valid and according to the latest national and international standards and regulations.

Tobacco Institute in Prilep, as one of the oldest institutes in the Balkans (established 87 years ago) with its scientific and research and applicative activity in all segments of production, processing and maintenance of the pureness and quality of the small leafed aromatic oriental type tobacco, contributes to keep tobacco a leading export agricultural products in the Republic of Macedonia.

The Institute has its own experimental field for production of pure seed, greenhouse, complete laboratory, meteorological station and library.

3. Extension and consulting services

Unlike in the past when the extension services in the agricultural sector were mainly responsibility of the public sector institutions such as the Agriculture Extension Agency (AEA) and the scientific and research institutions, currently, various categories extension services providers in agriculture take their place in the country. With the limited budget funds for the public institutions, the individual holdings entities, farmers' associations and the international donor organizations are becoming increasingly significant factor in the extension activities, although still with limited services, insufficiently diversified methods and target groups and limited effects in meeting of the counseling demands.

3.1 Services by scientific and research institutions (faculties and institutes)

Public scientific and research and education institutions, such as institutes and faculties, provide specialized expert extension services based on the scientific and research and applicative activity. The extension dimension is a framework for transfer of the achievements of scientific and research and applicative character from the faculties and institutes directly to the users, often within the framework of project activities, through the cooperation with MAFWE in the part of research and also applied research for the needs of the ministry.

Data gathered during the regular operations for relevant purposes, require appropriate systematization, further processing, analysis and interpretation of the processed data and received results. In that direction, public scientific and research and education institutions as well as the institutes and faculties with their capacities, can contribute to creation of conditions for further formation of the agricultural policy of the country.

3.2 Agriculture Extension Agency (AEA)

The Agriculture Extension Agency (AEA) was established with a Law on Establishment of an Agriculture Extension Agency (Official Gazette of RM no. 3/98 dated 22.01.1998) with support by the World Bank Project, according to the Agriculture Development Strategy of RM 1995-2010. With the realization of the reforms, AEA has a goal to enable implementation of the knowledge in the individual farmers (IF) in order to improve the quality and quantity of an economically feasible agricultural production, competitive on the Macedonian and EU markets, sustainable agriculture development in the rural areas as well as support of the development and realization of the agricultural policy through a database of IF and farm visits.

The agency activities are targeted and designed and provided through a practical implementation of the scientific and technical knowledge according to the market needs, strengthening and cooperation of the agricultural associations, support of the implementation of the government programs and measures for the individual agricultural sector, establishment and application of information systems in order to improve the monitoring of the agricultural activities and information exchange with the agro-complex stakeholders.

AEA structure is designed in three management levels: headquarters, regional centers and work units. AEA headquarters is in Bitola and coordinates 6 regional centers and 30 work units throughout the country. According to the needs and requirements of the farmers and with consent of the local self-government, temporary dispersed offices are opened in the rural areas, currently operating at 39 locations.

Program activities are directed through basic programs and their subprograms and they are permanently developed according to the existing conditions and needs:

- Promotion of the extension service quality and field implementations;
- Upgrade of the database, information flow and establishment of cooperation networks;
- Strengthening of the institutional capacities;
- Support for creation of development projects co-financed with budget and international funds, intended for the individual farmers;
- Support of the realization of the Government Program and National Agriculture and Rural Development Program.

The services include direct advisory assistance for the individual farmers in practical implementation of relevant measures i.e. scientific and technical knowledge in the agricultural production process prepared as technical and economic packages. Their goal is to improve the quality and quantity of the agricultural production and achieve better utilization of the agricultural resources.

As auxiliary activities in defining and implementation of the extension services and according to the existing work conditions, AEA realizes demonstration experiments, agrochemical analyses and database analyses from FMS (Farm Monitoring System).

Within the activities for development of the individual farmers through realization of expert extension services, field visits were realized and educative meeting were organized covering more than 4000 farmers, ten demonstration experiments were realized, database analyses were performed, problems with certain products were identified, information were processed, database for preparation of TESP was established. All the activities within the framework of the activities that support the field realization of measures from the financial support of the agriculture and rural development were realized with support by 160 volunteers, covering 40,000 farmers.

General for FMS data

Within the framework of the activities for implementation of establishment of farm accounting records in the Republic of Macedonia, according to EU regulations, AEA maintains a database of 600 agricultural holdings. In order to realize the planned activities AEA received assistance by several SIDA funded projects aimed to further FMS development and harmonization thereof with the European Farm Accounting Data Network (FADN). Ongoing institutional support is provided to MAFWE by a World Bank Project for finalization of the base and functioning of FADN in Macedonia according to EU regulations.

For the purposes of this activity, 60 AEA advisors are collecting data about the resources, revenues, yields and costs selected according to so called "conditional" representation. The advisors with farm visits, at least once in two months collect, record and enter the data in the AEA system database. The existing farm monitoring system was widely accepted and recommended by EU experts as a solid base for future upgrade of the Farm Accounting Data Network (FADN) system.

In the past period, during various years, certain system - software upgrades were applied, the necessary datasets were defined, relevant methodology for calculation of output results was developed, causing various effects

on the annual accounts, various controls were installed, the methodology for data collecting and recording in relevant notebooks – forms was upgraded, the operation and use manuals for the information technology were upgraded.

3.3 Professional consulting companies

Private sector involves various categories of consulting services providers. The individual consultants or consulting companies (agriculture engineers, economists, agronomists, soil specialists, plant protection specialists, and veterinarians) are most relevant, although still limited on country level. In certain cases they also use laboratories and professional equipment. Their target groups include progressive farmers and agro processors which are prepared and able to pay for specialist services. Consultants' advices are also provided by the materials vendors (seed and planting material, fertilizers, and agro chemical products) and mechanization and equipment vendors, as part of the company presale and post-sale policies.

Professional consulting companies are usually hired by the agricultural and food industry which is export oriented to the European Union countries markets. Production standards such as BRC, IFS, Globalgap, Organic or other EU recognized private standards, ISO and HACCP systems are implemented by professional consulting companies in Macedonia, but certification thereof is mainly performed by internationally recognized certification companies.

There is notable increase of the level of consulting services in the last few years as a result of the introduced subventions (50% of the consulting expenses) to companies that implement European standards to their production. The sources of funds include agriculture improvement programs, entrepreneurship programs and donor programs such as USAID-BASS, GTZ, SIDA.

4. Training system (informal education)

The well placed and effective system of informal education for farmers and rural population in the Republic of Macedonia is a significant condition for faster growth of the agricultural production and rural development. The Law on Adult Education that regulates the supply of education services of informal type through an adequate accrediting system was adopted in 2008. On the other hand, the adult education strategy 2010-2015, which places the future human resources development plans, was issued by the Ministry of Education and Science of the Republic of Macedonia in 2010. This strategy is also a base for the informal and lifelong education in the area of agriculture.

The Agro-Center Foundation for education ACE, established by the Institute of Agriculture in Skopje in 2006 and the Independent Applied Research and Continued Education Center (CIPOZ), established within the Faculty of Agricultural Sciences and Food – Skopje in 2002 have contributed for the informal education of various participants in agriculture. ACE has realized many projects and trainings in various agriculture, rural development, environmental protection and similar areas. CIPOZ, as part of its activities, has realized significant activities and results in the area of research, knowledge transfer as well as application of modern technology (training programs and seminars). In addition to the above mentioned, the higher education institutions also participate in informal education of all stakeholders in the agricultural sector through organization of various workshops and seminars in different topics. Other institutions, including the Federation of Farmers of the Republic of Macedonia have an especially significant contribution for the informal education of the farmers.

X. ATTACHMENTS

Attachment 1. Export, import and trade balance of agricultural and food products according to product groups from the Customs Tariff, 2010

CN	Nomenclature	Export		Import		2010
		Value in 000 EUR	Share	Value in 000 EUR	Share	Trade balance
01	Animals, live	3,069.2	0.7%	941.7	0.2%	2.127,5
02	Meat and edible other slaughterhouse products	16,980.6	3.8%	80,086.7	13.1%	-63.106
03	Fish and crustaceans, mollusks and other aquatic invertebrates	559	0.1%	7,620	1.2%	-7.061
04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included	4,487.7	1.1%	29,039.1	4.5%	-24.191
05	Products of animal origin, not elsewhere specified or included	756	0.0%	3,835.9	0.6%	-3.079,8
06	Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage	2,678.4	0.6%	3,623.2	0.6%	-944,7
07	Edible vegetables and certain roots and tubers	66,204.8	12.8%	6,341.9	1%	59.862,9
08	Edible fruit and nuts; peel of citrus fruit or melons	39,618	7.1%	24,361.5	3.5%	15.256,5
09	Coffee, tea, maté and spices	1,619.2	0.3%	16,517.7	2.3%	-14.898,5
10	Cereals	2,986.9	0.5%	18,713.8	2.6%	-15.726,9
11	Products of the milling industry; malt; starches; inulin; wheat gluten	179	0.0%	16,729.4	2.3%	-16.550,5
12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants	3,884.6	0.7%	14,079.6	1.9%	--10.195
13	Lac; gums, resins and other vegetable saps and extracts	0.032	0.0%	39	0%	-39
14	Vegetable plaiting materials;	0,061	0.0%	60.2	0.0%	-60,1
15	Animal or vegetable fats and oils and their cleavage products	8,545.5	1.5%	43,873.4	5.5%	-35.327,9
16	Preparations of meat, of fish or of crustaceans, mollusks or other aquatic invertebrates	17,303.6	2.9%	23,301.8	2.8%	-5.998,2
17	Sugars and sugar confectionery	7,589.2	1.3%	44,721	5.2%	-37.131,8
18	Cocoa and cocoa preparations	8,358.1	1.4%	30,569.6	3.4%	-22.211,5
19	Preparations of cereals, flour, starch or milk; pastrycooks' products	33,554.3	5.2%	32,530.8	3.5%	1.023,5
20	Preparations of vegetables, fruit, nuts or other parts of plants	31,651.4	4.7%	19,704.8	2.1%	11.946,6
21	Miscellaneous edible preparations	13,494	2%	46,405.4	4.7%	-32.911,3
22	Beverages, spirits and vinegar	60,552.9	8.1%	25,517.7	2.5%	35.035,2
23	Prepared animal fodder	278	0%	18,753.7	1.8%	-18.475,8
24	Tobacco and manufactured tobacco substitutes	93,483.7	11.1%	18,597.7	1.8%	74.886
Other agricultural products after chapter 24 of the Customs Tariff		5.442	0.6%	5,121	0.5%	321
Total value of export and import of agricultural and food products		423.670	100%	532,243.8	100%	-108,573.8

Source: SSO, 2011

Attachment 2. Implementation of tariff quotas (1)

IMPORT OF AGRICULTURAL PRODUCTS TO THE REPUBLIC OF MACEDONIA ORIGINATING FROM THE COMMUNITY (ZERO CUSTOMS TARIFF FOR THE QUOTA)				
(stipulated in article 27(3) (b))				
Tariff code	Nomenclature	2010 Quota (tons)	2010 import (tons)	EUR €
0206 29	Edible parts of cattle, except tongues and livers, frozen	415	1,032	852,663
0207	Meat and edible parts of poultry from tariff code 0105, fresh chilled or frozen	6,600	11724	10,016,117
0210 11 0210 12 0210 19	Meat, pork	50	45	357,783
0401 20	Milk and cream, not concentrated, nor containing added sugar or other sweetening matter, of a fat content exceeding 1% but not exceeding 6%	2,200	734	385,548
0402	Milk and cream, concentrated or containing added sugar or other sweetening matter	470	1129	2,331,404
0405 10	Butter	1,250	666	2,279,244
0406 20 0406 30	Grated or powdered cheese of all kinds Processed cheese, not grated nor powdered	150	177	687,190
0406 90	Other cheese	500	1,689	5,185,972
0802 31 0802 32	Ordinary walnuts, in shell Ordinary walnuts, shelled	60	10	24,173
0805 10 0805 20 0805 40 0805 50	-Oranges, -Mandarins (including tangerines and satsumas); clementines, wilkings and similar citrus hybrids, -Grapefruit, including pomelos -Lemons and lines, fresh or dried	8,000	11,127	4,088,601
0901	Coffee, whether or not roasted or decaffeinated; coffee husks and skins; coffee substitutes containing coffee in any proportion	10	639	2,498,893
1601	Sausages and similar products, of meat, meat offal or blood; food preparations based on these products	3,290	2,326	4,398,777
1602	Other prepared or preserved meat, meat offal or blood	1,780	1,947	6,061,576
2003 10 2003 20 00	Mushrooms of the genus Agaricus and truffles	50	161	172,826
2005 70	Olives, prepared or preserved otherwise than by vinegar or acetic acid, not frozen	1,600	2,378	4,136,021
2007 99	Jams, fruit jellies, marmalades, fruit or nut purée and fruit or nut pastes, obtained by cooking, other than homogenized and citrus fruit	50	117	125,038
2009	Fruit juices (including grape must) and vegetable juices, unfermented and not containing added spirit	300	1,465	2,306,942
2309 90 99 90	Products used for anima; feed Other	12,000	850	790,340

Source: SSO, 2011

Attachment 3. Overview of the trade with primary agricultural products, processed agricultural products and fish products in 2008, 2009, 2010 (in million €)

	Export			Import			Trade balance		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Primary agricultural products	136.9	128.2	154.4	152.8	130	148.3	-15.8	-1.8	6.1
Processed agricultural products	9.5	9.8	12.7	61.2	62.6	64.7	-51.7	-52.9	-52.0
Fish and fish products	8.3	7.7	6.6	5.5	5.1	3.3	2.8	2.7	3.3
TOTAL	154.7	145.7	173.7	219.5	197.7	216.4	-64.7	-52	-42.7

Source: SSO, 2011

Attachment 4. Most significant primary agricultural products exported from the Republic of Macedonia to EU-27

		MK export to EU-27					
		2009			2010		
		Quantity tons/ht	Value in 000 €	Value share	Quantity tons/ht	Value in 000 €	Value share
Tariff code	Description						
2401	Unmanufactured tobacco	13,756	56,454	44.0%	14,216	62,299	40.3%
0204	Meat of sheep, fresh, chilled or frozen	2,647	12,868	10.0%	2,366	12,441	8.1%
2204	Wine of fresh grapes	415,116	16,201	12.6%	324,734	12,116	7.8%
0709	Other vegetables, fresh or chilled	11,458	6,968	5.4%	21,384	9,572	6.2%
0702	Tomatoes, fresh or chilled	14,701	3,409	2.7%	19,150	7,449	4.8%
0710	Vegetables (uncooked or cooked), frozen	4,795	4,506	3.5%	7,839	6,106	4.0%
0704	Cabbage, Cauliflower, fresh or chilled	27,827	2,737	2.1%	36,718	5,039	3.3%
2005	Other vegetables, processed	2,638	3,908	3.0%	3,640	4,826	3.1%
0808	Apples, pears, quinces, fresh	10,881	912	0.7%	23,263	3,218	2.1%
Total export of primary agricultural products		168,694	128,245	100%	221,615	154,402	100%

Source, SSO, 2011

Attachment 5. Most significant primary agricultural products to the Republic of Macedonia from EU-27

		MK import from EU-27					
		2009			2010		
Tariff code	Description	Quantity tons	Value in 000 €	Value share	Quantity tons	Value in 000 €	Value share
1512	Oil of sunflower seed	12,807	7,837	26.0%	28,706	19,369	13.1%
0201	Meat of bovine animals, fresh or chilled	7,595	17,752	13.7%	7,192	16,520	11.1%
0203	Meat of swine, fresh, chilled or frozen	4,653	10,041	7.7%	5,493	12,255	8.3%
0207	Meat of poultry	10,447	9,960	7.7%	11,724	10,016	6.8%
1602	Other prepared or preserved meat	1,565	4,869	3.7%	1,947	6,062	4.1%
2401	Unmanufactured tobacco	1,593	3,579	2.8%	2,966	5,992	4.0%
0406	Cheese and curd	2,108	5,521	4.2%	1,878	5,926	4.0%
2005agri.	Other vegetables, processed	3,098	5,195	4.0%	2,826	5,082	3.4%
2309	Products used for animal feed	5,027	4,731	3.6%	4,714	4,821	3.3%
1601	Sausages and similar products of meat	2,441	4,719	3.6%	2,326	4,399	3.0%
0805	Citruses, fresh or chilled	8,418	3,248	2.5%	11,127	4,089	2.8%
Total import of primary agricultural products		146,788	130,041	100%	158,160	148,304	100%

Source, SSO, 2011

Attachment 6. Most significant processed agricultural products to the Republic of Macedonia from EU-27

		MK import from EU-27					
		2009			2010		
Tariff code	Description	Quantity tons	Value in 000 €	Value share	Quantity tons	Value in 000 €	Value share
2106	Food preparations not elsewhere specified or included	6,564	21,030	33.6%	6,960	21,864	33.8%
1806	Chocolate and other food preparations containing cocoa	1,757	7,104	11.3%	1,766	7,006	10.8%
1905	Bread, pastry, cakes, biscuits and waffles	3,410	5,900	9.4%	3,448	6,638	10.3%
1901	Malt extract; food preparations of flour, groats, meal, starch or malt extract	2,349	4,179	6.7%	2,420	4,401	6.8%
2203	Beer made from malt	5,733	3,289	5.3%	6,205	3,454	5.3%
2202	Waters, including mineral waters, containing added sugar	3,173	2,848	4.5%	2,294	2,532	3.9%
1902	Pasta, whether or not cooked or stuffed	2,853	2,262	3.6%	2,989	2,124	3.3%
2208	Undenatured ethyl alcohol, alcoholic beverages	796	3,093	4.9%	604	1,973	3.0%
1805	Cocoa powder, not containing added sugar	644	912	1.5%	740	1,840	2.8%
Total import of processed agricultural products		32,709	62,639	100%	32,711	64,739	100%

Source, SSO, 2011

Attachment 7. Import of agricultural products into the Republic of Macedonia originating from the Community (Quota concessions) (stipulated in article 27(3) (c))

Tariff code	Nomenclature	2010 Quota (tons)	2010 import (tons)	EUR €
0201	Meat of bovine animals, fresh chilled or frozen	300	7,396	17,068,698
0202				
0203	Meat of swine, fresh, chilled or frozen	2,000	5,493	12,255,277
0203	Meat of swine, fresh, chilled or frozen	200		
0406 10	Cheese and curd	600	12	53,120
0406 40				
0701 90	Potatoes, fresh or chilled	100	62	13,802
1209 21	Alfalfa seed	15	31	82,198

Source, SSO, 2011

Attachment 8. Customs tariffs applicable to products originating from the Community for import into the Republic of Macedonia (zero customs tariff within the quotas)

Tariff code	Nomenclature	2010 Quota (tons)	2010 import (tons)	EUR €
1517 10	Margarine, excluding liquid margarine	100	992	1,016,231
1704 90	Sugar confectionery (including white chocolate), not containing cocoa, excluding Chewing gum, whether or not sugar-coated	265	391	1,178,797
1806	Chocolate and other food preparations containing cocoa	350	1,766	7,006,306
1902	Pasta, whether or not cooked or stuffed (with meat or other substances) or otherwise prepared, such as spaghetti, macaroni, noodles, lasagna, gnocchi, ravioli, cannelloni; couscous, whether or not prepared	100	2,993	2,134,143
1905	Bread, pastry, cakes, biscuits and other bakers' wares, whether or not containing cocoa; communion wafers, empty cachets of a kind suitable for pharmaceutical use, sealing wafers, rice paper and similar products	430	400	999,147
1905 31 1905 32	Sweet biscuits, waffles and wafers	330	1,592	2,552,077
1905 90	Other	150	1,456	3,086,372
2101 11 2101 12	Extracts, essences and concentrates Preparations with a basis of extracts, essences or concentrates or with a basis of coffee	5	238	1,361,337
2103 30 90	Prepared mustard	200	96	103,864
2105	Ice cream and other edible ice, whether or not containing cocoa	50	821	1,696,457

Source, SSO, 2011

Attachment 9. Customs tariffs applicable to products originating from the Community for import into the Republic of Macedonia (Concessions within the quotas)

Tariff code	Nomenclature	2010 Quota (tons)	2010 import (tons)	EUR €
2201	Waters, including natural or artificial mineral waters and aerated waters, not containing added sugar or other sweetening matter nor flavored; ice and snow	150	738	179,012

Source, SSO, 2011

Attachment 10. Import of fish and fish products into the Republic of Macedonia originating from the Community (zero customs tariff within the quota) (stipulated in article 28(2))

Tariff code	Nomenclature	2010 Quota (tons)	2010 import (tons)	EUR €
0301 93 00	Carp, live	75	1	2,380

Source, SSO, 2011

Attachment 11. Total import of fish and fish products

		Import							
		2007		2008		2009		2010	
Tariff code	Nomenclature	Quantity in kg	Value in EUR	Quantity in kg	Value in EUR	Quantity in kg	Value in EUR	Quantity in kg	Value in EUR
0301	Live fish	134,711	260,133	104,236	294,879	76,483	239,586	94,807	249.942
0302	Fish, fresh or chilled, excluding fish fillets	124,567	524,248	187,269	639,913	200,530	726,954	159,766	817.394
0303	Fish, frozen, excluding fish fillets	4,246,658	5,846,548	3,855,872	6,106,756	3,908,751	5,454,026	3,750,097	5.201.454
0304	Fish fillets and other fish meat (whether or not minced), fresh, chilled or frozen	322,738	741,751	405,582	864,215	597,500	1,158,888	365,026	709.493
0305	Fish, dried, salted or in brine; smoked fish	4,113	39,144	2,182	31,207	1,937	26,628	4,170	59.920
0306	Crustaceans, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine	23,313	187,360	45,636	310,074	34,639	259,212	32,464	261.601
0307	Mollusks, whether in shell or not, live, fresh, chilled, frozen, dried, salted or in brine (SNAILS)	1,799,127	1,967,821	1,120,685	2,129,327	1,329,077	1,819,111	118,086	320.327
Total import of fish and fish products		6.655.226	9,567,005	5,721,461	10,376,371	6,148,917	9,684,405	4,524,416	7,620,131

Source, SSO, 2011

Attachment 12. Total import of processed fish and fish products производи

		Import							
		2007		2008		2009		2010	
Tariff code	Nomenclature	Quantity in kg	Value in EUR	Quantity in kg	Value in EUR	Quantity in kg	Value in EUR	Quantity in kg	Value in EUR
1604	Prepared or preserved fish; caviar	2,921,520	6,331,850	2,624,815	6,811,916	2,170,330	5,791,361	2,193,568	6.003.166
1605	Crustaceans, mollusks and other aquatic invertebrates, prepared or preserved (SNAILS)	520,102	2,019,471	577,284	3,232,562	531,354	3,056,534	487,493	2.076.356
Total import of processed fish and fish products		3.441.622	8,351,320	3,202,100	10,044,479	2,701,684	8,847,895	2,681,061	8,079,522

Source, SSO, 2011

Attachment 13. List of protected wine names

Wines with controlled and guaranteed origin, produced in specific localities

Specific localities	
- Names - Transcript (*) - English translation (*)	Use (*)
- Дисан	- Дисански локалитет
- <i>Disan</i>	- <i>Disanski lokalitet</i>
- <i>Disan</i>	- <i>Disan locality</i>

1. Wines with controlled and guaranteed origin, produced in specific regions (wine regions)

Specific regions	
- Names - Transcript (*) - English translation (*)	Use (*)
- Скопје	- Скопско виногорје
- <i>Skopje</i>	- <i>Skopsko vinogorje</i>
- <i>Skopje</i>	- <i>Skopje wine region</i>
- Велес	- Велешко виногорје
- <i>Veles</i>	- <i>Velesko vinogorje</i>
- <i>Veles</i>	- <i>Veles wine region</i>
- Тиквеш	- Тиквешко виногорје
- <i>Tikves</i>	- <i>Tikvesko vinogorje</i>
- <i>Tikves</i>	- <i>Tikves wine region</i>
- Гевгелија-Валандово	- Гевгелиско-валандовско виногорје
- <i>Gegelija-Valandovo</i>	- <i>Gevgelisko-valandovsko vinogorje</i>
- <i>Gegelija-Valandovo</i>	- <i>Gegelija-Valandovo wine region</i>
- Струмица-Радовиш	- Струмичко-радовишко виногорје
- <i>Strumica-Radovis</i>	- <i>Strumicko-radovisko vinogorje</i>
- <i>Strumica-Radovis</i>	- <i>Strumica-Radovis wine region</i>
- Овче Поле	- Овчеполско виногорје
- <i>Ovce Pole</i>	- <i>Ovsepolsko vinogorje</i>
- <i>Ovce Pole</i>	- <i>Ovce Pole wine region</i>
- Кочани-Виница	- Кочанско-виничко виногорје
- <i>Kosani-Vinica</i>	- <i>Kosansko-vinicko vinogorje</i>
- <i>Kosani-Vinica</i>	- <i>Kosani-Vinica wine region</i>
- Куманово	- Кумановско виногорје
- <i>Kumanovo</i>	- <i>Kumanovsko vinogorje</i>
- <i>Kumanovo</i>	- <i>Kumanovo wine region</i>
- Кратово	- Кратовско виногорје
- <i>Kratovo</i>	- <i>Kratovsko vinogorje</i>
- <i>Kratovo</i>	- <i>Kratovo wine region</i>
- Пијанец	- Пијанечко виногорје
- <i>Pijanec</i>	- <i>PijanECKO vinogorje</i>
- <i>Pijanec</i>	- <i>Pijanec wine region</i>
- Прилеп	- Прилепско виногорје
- <i>Prilep</i>	- <i>Prilepsko vinogorje</i>
- <i>Prilep</i>	- <i>Prilep wine region</i>
- Битола	- Битолско виногорје
- <i>Bitola</i>	- <i>Bitolsko vinogorje</i>
- <i>Bitola</i>	- <i>Bitola wine region</i>
- Преспа	- Преспанско виногорје
- <i>Prespa</i>	- <i>Prespansko vinogorje</i>
- <i>Prespa</i>	- <i>Prespa wine region</i>
- Охрид	- Охридско виногорје
- <i>Ohrid</i>	- <i>Ohridsko vinogorje</i>
- <i>Ohrid</i>	- <i>Ohrid wine region</i>
- Кичево	- Кичевско виногорје
- <i>Kicevo</i>	- <i>Kicevsko vinogorje</i>
- <i>Kicevo</i>	- <i>Kicevo wine region</i>

- Тетово	- Тетовско виногорје
- Tetovo	- Tetovsko vinogorje
- Tetovo	- Tetovo wine region

(*) *In italic: only for information purposes*

2. Table wines with geographic designation

Geographic designation	
- Names - Transcript (*) - English translation (*)	Use (*) - Transcript (*) - English translation (*)
- Македонија - Makedonija - Macedonia	Регионално вино од Македонија, Македонско регионално вино - <i>Regionalno vino od Makedonija,</i> <i>Makedonsko regionalno vino</i> - <i>Regional wine of Macedonia,</i> <i>Macedonian regional wine</i>

(*) *In italic: only for information purposes*

3. List of traditional expressions and terms for good quality wine

Traditional expressions	Transcript	English translation	Wines concerned	Language	Type of the traditional term
Регионално вино	Regionalno vino	Regional wine	All	Macedonian македонски	In place of PDO/PGI
Вино со контролирано потекло	Vino so kontrolirano poteklo	Wine with controlled origin	All	Macedonian македонски	In place of PDO/PGI
Вино со контролирано и гарантирано потекло	Vino so kontrolirano i garantirano poteklo	Wine with controlled and guaranteed origin	All	Macedonian македонски	In place of PDO/PGI
Десертно вино	Desertno vino	Desert wine	All	Macedonian македонски	In place of PDO/PGI
Ознака за потекло (ОП)	Oznaka za poteklo (OP)	Designation of origin (DO)	All	Macedonian македонски	In place of PDO/PGI
Сопствена берба	Sopstvena berba	Own harvest	All	Macedonian македонски	Description of product characteristic
Доцна берба	Docna berba	Late harvest	All	Macedonian македонски	Description of product characteristic
Изборна берба	Izborna berba	Selective harvest	All	Macedonian македонски	Description of product characteristic
Избор на гроздови	Izbor na grozdovi	Selection of bunches	All	Macedonian македонски	Description of product characteristic
Избор на зрна	Izbor na zrna	Selection of berries	All	Macedonian македонски	Description of product characteristic
Рачна берба	Račna berba	Hand picked	All	Macedonian македонски	Description of product characteristic
Одлежано на талог	Odležano na talog	Aged in lees	All	Macedonian македонски	Description of product characteristic
Ограничена серија	Ograničena serija	Limited edition	All	Macedonian македонски	Description of product characteristic
Специјална серија	Specijalna serija	Special edition	All	Macedonian македонски	Description of product characteristic
Приватна серија	Privatna serija	Private edition	All	Macedonian македонски	Description of product characteristic

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USEFUL ADDRESSES AND WEBSITES

Institutions/organizations	Website	Telephone (+389/2)
Ministry of Agriculture, Forestry and Water Economy	www.mzsv.gov.mk	3134 477
MAFWE Forestry Sector		3124-290
MAFWE Agriculture Sector		3161-710
MAFWE Rural Development Sector		3124-333
MAFWE Veterinary Health Administration		3112-210
MAFWE Seed and Planting Material Administration		3226-417
MAFWE Plant Protection Administration		3112-210
MAFWE Water Economy Administration		3111-792
State Agricultural Inspectorate		3121-462
MAFWE National Hydrometeorology Service	www.meteo.gov.mk	3097-103
Government of RM, Sector of European Issues (SEI)	www.sep.gov.mk	3239-165
Ministry of Environment and Physical Planning	www.moep.p.gov.mk	3066-930
State Statistical Office	www.stat.gov.mk	3295-668
Agriculture Extension Agency	www.agencija.gov.mk	047/228-330
Agency for Financial Support of Agricultural and Rural Development	www.ipardpa.gov.mk	3228-849
Faculty of Agricultural Science and Food	www.fznh.ukim.edu.mk	3115-277
Faculty of Veterinary Medicine	www.fvm.ukim.edu.mk	3240-700
Federation of Farmers	www.ffrm.gov.mk	3012-303

